



PROFESSIONAL RESERVE STUDY

LEVEL 3 UPDATE



Lake Cushman Maintenance Company

- Water Supply System -

3740 North Lake Cushman Road, Hoodspport, WA 98548

For:

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TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
1.0 EXECUTIVE SUMMARY	3
1.1 Disclosures Required by State of WA RCW 64.90.550	3
1.2 General Description of Property	3
1.3 Immediate Necessary Capital Expenditures	3
Table 1.3: Summary of Immediate Necessary Capital Expenditures	3
2.0 RESERVE STUDY BACKGROUND	4
2.1 Purpose of This Level 3 Reserve Study.....	4
2.2 Washington State RCW 64.90.550	4
2.3 Scope and Methodology	5
2.4 Sources of Information	5
2.5 Definitions	5
2.6 Frequently Asked Questions About Reserve Studies	6
3.0 PHYSICAL ANALYSIS	8
3.1 Component Assessment and Valuation	8
Table 3.1A: Component Assessment and Valuation	9
3.20 Summary of Annual Anticipated Expenses	16
4.0 FINANCIAL ANALYSIS	35
4.1 Current Financial Information and Current Funding Plan.....	35
4.2 Recommended Reserve Funding Plan	35
4.3 Other Required Funding Plan Options.....	37
4.4 Assumptions for Future Interest Rate and Inflation.....	38
4.5 Annual Fund Balances; Annual Funding Table and Figures	38
Figure 4.5A-1 Comparison of Funding Plans – Reserve Fund Balances Through 2053.....	45
Figure 4.5A-2 Comparison of Funding Plans – Reserve Fund Balances Through 2033.....	45
Figure 4.5B Comparison of Funding Plans -- Association Contributions to Reserve Fund by Year.....	46
Figure 4.5C Comparison of Funding Plans – Percentage of Full Funding by Year	46
4.6 Other Common Funding Methods	47
5.0 LIMITATIONS.....	48
APPENDIX.....	49

1.0 EXECUTIVE SUMMARY

1.1 DISCLOSURES REQUIRED BY STATE OF WA RCW 64.90.550

The undersigned makes the following disclosures required by RCW 64.90.550 to establish that this Reserve Study meets all requirements of the Washington Uniform Common Interest Ownership Act, Chapter 64.90 RCW:

- a. This Reserve Study was prepared with the assistance of a reserve study professional and that professional was independent;
- b. This Reserve Study includes all information required by RCW 64.90.550 Reserve Study – Contents; and
- c. This 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 the association to (1) defer major maintenance, repair, or replacement, (2) increase future reserve contributions, (3) borrow funds to pay for major maintenance, repair, or replacement, or (4) impose special assessments for the cost of major maintenance, repair, or replacement.

1.2 GENERAL DESCRIPTION OF PROPERTY

Lake Cushman Maintenance Company was developed around 1966 and currently includes approximately 3,144 lots around Lake Cushman. There is approximately 55 miles of privately owned and maintained roads, two private domestic water systems, several private parks and community water accesses, several community buildings, a 9-hole golf course, and many acres of greenbelt.

Like all properties, this property will require capital maintenance. We have itemized areas of capital maintenance that we anticipate over the next thirty (30) years along with estimated costs and estimated schedule of repair/replacement.

1.3 IMMEDIATE NECESSARY CAPITAL EXPENDITURES

Table 1.3 below shows the items that are in need of action immediately or within the near future. This is a summary; all tasks are explained in greater detail in Section 3.0 Physical Analysis.

Table 1.3: Summary of Immediate Necessary Capital Expenditures

Component	Cost	Urgency
<i>Numerous projects planned in 2023 and 2024 listed in Table 3.1A and Table 3.20</i>		

2.0 RESERVE STUDY BACKGROUND

2.1 PURPOSE OF THIS LEVEL 3 RESERVE STUDY

The primary purpose of this Level 3 Reserve Study is to provide the Association with a planning and budgeting tool to adequately maintain the property 30 years into the future without unexpected special assessments. This study is intended to provide the Association with an understanding of their property and to bring to light necessary immediate expenditures and reasonably anticipated future capital expenses that should be addressed.

Associations have a responsibility to their members to adequately maintain their properties and our Reserve Studies provide our clients with the tools to implement capital maintenance. When small issues and maintenance items are addressed prior to becoming larger problems, there is typically a significant overall savings for a property owner. Properly maintained properties maintain higher property values than those with an abundance of deferred maintenance.

An additional benefit of this Reserve Study is that it is one of the qualifications required for Associations to obtain FHA approval (which is very helpful in selling or refinancing individual units). Many other sources of funding are also beginning to require them as well.

2.2 WASHINGTON STATE RCW 64.90.550

As of July 1, 2018, WA State RCW 64.90.550 defined a Reserve Study in WA State as the following:

- (1) Any reserve study is supplemental to the association's operating and maintenance budget.
- (2) A reserve study must include:
 - (a) A reserve component list, including any reserve component, the replacement cost of which exceeds one percent of the annual budget of the association, excluding contributions to the reserves for that reserve component. If one of these reserve components is not included in the reserve study, the study must explain the basis for its exclusion. The study must also include quantities and estimates for the useful life of each reserve component, the remaining useful life of each reserve component, and current major replacement costs for each reserve component;
 - (b) The date of the study and a disclosure as to whether the study meets the requirements of this section;
 - (c) The following level of reserve study performed:
 - (i) Level I: Full reserve study funding analysis and plan;
 - (ii) Level II: Update with visual site inspection; or
 - (iii) Level III: Update with no visual site inspection;
 - (d) The association's reserve account balance;
 - (e) The percentage of the fully funded balance to which the reserve account is funded;
 - (f) Special assessments already implemented or planned;
 - (g) Interest and inflation assumptions;
 - (h) Current reserve account contribution rates for a full funding plan and a baseline funding plan;
 - (i) A recommended reserve account contribution rate for a full funding plan to achieve one hundred percent fully funded reserves by the end of the thirty-year study period, a recommended reserve account contribution rate for a baseline funding plan to maintain the reserve account balance above zero throughout the thirty-year study period without special assessments, and a reserve account contribution rate recommended by the reserve study professional;
 - (j) A projected reserve account balance for thirty years based on each funding plan presented in the reserve study;

This reserve study meets the qualifications of WA State RCW 64.90.550

(k) A disclosure on whether the reserve study was prepared with the assistance of a reserve study professional, and whether the reserve study professional was independent; and

(l) A statement of the amount of any current deficit or surplus in reserve funding expressed on a dollars per unit basis. The amount is calculated by subtracting the association's reserve account balance as of the date of the study from the fully funded balance, and then multiplying the result by the fraction or percentage of the common expenses of the association allocable to each unit; except that if the fraction or percentage of the common expenses of the association allocable vary by unit, the association must calculate any current deficit or surplus in a manner that reflects the variation.

(3) A reserve study must also include the following disclosure:

"This 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 the association to (1) defer major maintenance, repair, or replacement, (2) increase future reserve contributions, (3) borrow funds to pay for major maintenance, repair, or replacement, or (4) impose special assessments for the cost of major maintenance, repair, or replacement."

2.3 SCOPE AND METHODOLOGY

Our initial Level 1 Reserve Study was finalized on October 9, 2022 at this property. We provided the Board a subsequent Level 3 Reserve Study on July 1, 2022.

This report is an off-site update of that report based solely on the information provided to us by Karen Laverdiere on June 28, 2023.

Financial Analysis: We performed an analysis on the financial needs and current status at the property. The financial analysis provides the following:

- Forecasts the anticipated Capital Reserves necessary at the property over the next 30 years.
- Projects future Capital Reserve balances and determines the appropriate funding levels necessary.
- Reviews the Association's current funding plan and current financial position.
- Provides our recommended annual contribution to the Reserve Fund to maintain Full Funding.

2.4 SOURCES OF INFORMATION

The following people provided us information for this study:

- Karen Laverdiere, Finance Manager

2.5 DEFINITIONS

Assumed Inflation - Our assumed inflation rate is our best guess of the long term average of the inflation rate over the next thirty years; it is not based on the current Consumer Price Index (CPI). Our number is much closer to the historical average of the CPI over the previous 25 years.

Capital Reserves Balance - Actual or projected funds as of a particular point in time that the Association has identified for use to defray the future repair or replacement of those major components which the Association is obligated to maintain. Also known as reserves, reserve accounts, cash reserves.

Component - An individual line item in the Reserve Study developed or updated in the physical analysis. These elements form the building blocks of the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited useful life expectancies, 3) predictable remaining useful life expectancies, 4) above a minimum threshold cost, and 5) as required by local codes.

Component Inventory - The task of selecting and quantifying reserve components. This task is accomplished through onsite visual observations, review of Association design and organizational documents, and a review of established Association precedents.

Deficit - An actual (or projected) reserve balance less than the fully funded balance. The opposite would be a surplus.

Effective Age - The difference between useful life and remaining useful life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computation.

Financial Analysis - The portion of a Reserve Study where current status of the reserves (measured as cash or percent funded) and a recommended reserve contribution rate (reserve funding plan) are derived. The financial analysis is one of the two parts of a Reserve Study.

Fully Funded - 100% funded. When the actual (or projected) reserve balance is equal to the fully funded balance.

Fully Funded Balance (FFB) - Total accrued depreciation. An indicator against which actual (or projected) reserve balance can be compared. In essence, it is the reserve balance that is proportional to the current Repair/replacement cost and the fraction of life “used up”. This number is calculated for each component, then summed together for an Association total.

Percent Funded - The ratio, at a particular point of time (typically the beginning of the fiscal year), of the actual (or projected) reserve balance to the fully funded balance, expressed as a percentage.

Special Assessment - An assessment levied on the members of an Association in addition to regular assessments. Special assessments are often regulated by governing documents or local statutes.

2.6 FREQUENTLY ASKED QUESTIONS ABOUT RESERVE STUDIES

What is a reserve study?

Reserve studies are comprehensive reports that are used as budget planning tools that will assess the current financial health of the reserve fund as well as create a plan for future funding to offset anticipated major future common area expenditures.

According to *Community Association Institute's Best Practices, Reserve Studies/Management*: “There are two components of a reserve study—a physical analysis and a financial analysis. During the physical analysis, a reserve provider evaluates information regarding the physical status and repair/replacement cost of the association’s major common area components. To do so, the provider conducts a component inventory, a condition assessment, and life and valuation estimates. A financial analysis assesses only the association’s reserve balance or fund status (measured in cash or as percent funded) to determine a recommendation for an appropriate reserve contribution rate (funding plan).”

What are the different types of reserve studies?

Reserve studies fit into one of three categories: Full; Update with Site Visit; and Update with No Site Visit. They are frequently called Level 1, Level 2, and Level 3 respectively (as defined by Washington State RCW 64.90.550).

Level 1: A full reserve study – the reserve provider conducts a component inventory, a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both a fund status and a funding plan. They typically extend 30-years. A full reserve study must be in place before a Level 2 or Level 3 can take place.

Level 2: An update with site visit (on-site review) -- the reserve study provider conducts a component inventory (verification only, not quantification), a condition assessment (based on on-site visual observations), and life and valuation estimates to determine both a fund status and a funding plan. A Level 2 update is performed every third year, with the first one scheduled 3 years after the Level 1 was completed.

Level 3: An update with no site visit (off-site review) -- the reserve study provider conducts life and valuation estimates to determine a fund status and a funding plan. A Level 3 update is performed annually, except in years when a Level 1 or Level 2 has been conducted.

When should associations obtain reserve studies?

Most association experts would agree that an initial full 30-year reserve study should be conducted sooner rather than later if one is not already in place. They are typically updated annually after that to account for things such as inflation and any adjustments in funding levels, budgets, repairs or replacements.

If you follow Washington State RCW 64.90.555 (which we recommend), your reserve study schedule would look like this:

- Year 1: Level 1 full 30-year study
- Years 2, 3: Level 3 annual updates
- Year 4: Level 2 update with site visit
- Years 5, 6: Level 3 annual updates
- Year 7: Level 2 update with site visit

The cycle of Level 2 and Level 3 updates continues indefinitely. A Level 1 full study is not necessary after year 1.

What are the benefits of a Reserve Study?

Benefits of reserve studies, in short, include improved property maintenance (and therefore value) as well as complying with the law. In more detail:

Complying with Washington State law

View the rules regarding Reserve Studies and Reserve Accounts here:

<http://app.leg.wa.gov/RCW/default.aspx?cite=64.90> - Sections 535, 540, 545, 550, 555, and 560

Fulfilling lender requirements (such as FHA)

Many lenders are requiring up-to-date reserve studies that indicate adequate financial health before they lend. Having a reserve study in place that shows a healthy funding plan before a homeowner finds a buyer could save significant time in the closing process.

Help maintain the property's value and appearance

A reserve study helps maintain the property's value and the property owner's investment. By identifying and budgeting for future repairs or replacement (anticipated capital expenditures), the property's common elements continue to look attractive and well-kept, adding to the community's overall quality of life. Many features, when properly maintained, can also benefit from an extended lifespan resulting in overall cost savings to the owners. Well maintained properties almost always have higher resale values than those that have been neglected.

Establishing sound financial planning and budget direction

A comprehensive reserve study lays out a schedule of anticipated major repairs or replacements to common property elements and applies cost estimates to them. It typically spans a 30-year period, and will serve as a financial planning tool for the association to use when determining homeowners dues and contributions to the reserve fund.

Reducing the need for special assessments

An association that has properly implemented their reserve study will strategically collect fees over time from homeowners (via monthly dues) rather than need large sums of cash unexpectedly (special assessments). Therefore, the need for special assessments should be minimized because expenses have already been planned for and the funds exist when needed.

Fulfilling the board of directors' fiduciary responsibility

Board members of community associations have a fiduciary responsibility to their members. Directors are legally bound to use sound business judgment in guiding the association and cannot ignore major capital expenditures or eliminate them from the budget.

3.0 PHYSICAL ANALYSIS

3.1 COMPONENT ASSESSMENT AND VALUATION

The component assessment and valuation of the itemized capital expenses on this property was done by providing our opinion of Useful Life, Remaining Useful Life, and Repair or Replacement Costs for the Reserve components. Table 3.1A lists this component inventory, and is based on the information that we were provided and on onsite visual observations.

The remainder of “Section 3.0 Physical Analysis” details each of the items in Table 3.1A using narratives and photos. They are meant to be read together.

Table 3.1B is a summary of expenses, grouped according to their expense category. Chart 3.1B is a pie chart illustrating the same.

Table 3.1A Key:

Quantity - The total quantity of each component.

Units - SF = Square Feet SY = Square Yards LF = Lineal Feet
EA = Each LS = Lump Sum SQ = Roofing Square (10 ft X 10 ft)

Cost/Unit - The cost of a component. The unit cost is multiplied by the component’s quantity to obtain the total estimated replacement cost for the component.

Remaining Life – An opinion of the probable remaining life, in years, that a reserve component can be expected to continue to serve its intended function. Replacements anticipated to occur in the initial or base year have “zero” Remaining Life.

Useful Life - Total Useful Life or Depreciable Life. An opinion of the total probable life, in years, that a reserve component can be expected to serve its intended function in its present condition.

Table 3.1A: Component Assessment and Valuation

Note: All numbers provided are the engineer's opinion of probable life and cost in 2023 dollars. Exact numbers may vary.

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS						
<i>Immediate Planned General Water System Expenses</i>						
2004 meter purchase loan repayment / 5 years left	1	LS	\$115,000	0	1	\$115,000
Replace meter registers	1	LS	\$32,000	19	20	\$32,000
Water comprehensive plan update	1	LS	\$75,000	0	5	\$75,000
Water reservoir - cleaning/coating - phase 1 (Mount Rose)	1	LS	\$35,000	9	10	\$35,000
Water reservoir - cleaning/coating - phase 2 (Division #1)	1	LS	\$35,000	9	10	\$35,000
Water reservoir - cleaning/coating - phase 3 (Division #10)	1	LS	\$35,000	9	10	\$35,000
Water reservoir - cleaning/coating - phase 4 (Division #15)	1	LS	\$35,000	9	10	\$35,000
Well level transducer replacement allotment	1	LS	\$98,000	1	5	\$98,000
Perkins Portable Generator 30kw	1	EA	\$17,750	19	50	\$17,750
Feasibility study to install new well system 5 (scada - fiber optic)	1	LS	\$40,000	0	30	\$40,000
Install fiber optic to replace radio telemetry for wells/pump houses - phase 1 of 2	1	LS	\$200,000	0	30	\$200,000
Install fiber optic to replace radio telemetry for wells/pump houses - phase 2 of 2	1	LS	\$200,000	1	30	\$200,000
<i>System 3 - Well #2 - Division #4</i>						
Well #2 (AHB683) - 8", 225' deep	1	EA	\$18,000	33	85	\$18,000
New source approval - well #2	1	EA	\$14,000	33	85	\$14,000
Well pump (30 hp) - well #2	1	EA	\$30,000	16	30	\$30,000
Variable speed drive - Yaskaw ay P7, 30 hp - well #2	1	EA	\$7,000	6	20	\$7,000
Source meter - well #2	1	EA	\$2,500	6	15	\$2,500
Pumphouse electronics - well #2	1	LS	\$10,000	16	30	\$10,000
Pumphouse structure - well #2	1	LS	\$8,000	8	60	\$8,000
Pumphouse roof - steel - well #2	1	LS	\$3,500	8	60	\$3,500
Install Cummins Diesel 50 kw Generator at Well #2	1	EA	\$85,000	0	50	\$85,000

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS - CONTINUED						
<i>System 3 - Well #10 - Division #4</i>						
Well #10 - 8", 164' deep, AHB682	1	EA	\$13,200	52	85	\$13,200
New source approval - well #10	1	LS	\$14,000	52	85	\$14,000
Well pump (30 hp) - well #10	1	EA	\$30,000	16	30	\$30,000
Variable speed drive - Yaskaw ay P7, 30 hp - well#10	1	EA	\$7,000	6	20	\$7,000
Source meter - well #10	1	EA	\$2,500	6	15	\$2,500
Pumphouse electronics - well #10	1	LS	\$10,000	16	30	\$10,000
Pumphouse structure - well #10	1	LS	\$8,000	27	60	\$8,000
Pumphouse roof - shingles - well #10	1	LS	\$2,500	8	61	\$2,500
<i>System 3 General Expenditures</i>						
Distribution mains and service connections in System 3	26,100	LF	\$120	13	80	\$3,132,000
Isolation valves in System 3	80	EA	\$1,200	3	30	\$96,000
Blow offs in System 3	12	EA	\$2,000	3	30	\$24,000
Air / Vacuum release valve in System 3	4	EA	\$3,000	3	30	\$12,000
Fire hydrants in System 3	9	EA	\$11,000	16	30	\$99,000
Concrete reservoir - 26'X35', 138,900 gallons in System 3	1	EA	\$340,000	64	80	\$340,000
Systems 3 Radio Telemetry sites	3	EA	\$4,000	3	15	\$12,000
Water meter setters in System 3	396	EA	\$300	11	24	\$118,800
Service meters in System 3	396	EA	\$300	12	15	\$118,800

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS - CONTINUED						
<i>System 5 - Well #9 - Division #1</i>						
Well #9 (AHB680) - 8", 208' deep	1	EA	\$16,640	52	85	\$16,640
New source approval - w ell #9	1	LS	\$14,000	52	85	\$14,000
Well pump (50 hp) - w ell #9	1	EA	\$35,000	29	30	\$35,000
Variable speed drive - Yaskaw a P7, 60 hp - w ell #9	1	EA	\$8,500	5	20	\$8,500
Source meter - w ell #9	1	EA	\$2,500	6	15	\$2,500
Pump electronics - w ell #9	1	LS	\$10,000	15	30	\$10,000
Pumphouse structure - w ell #9	1	LS	\$8,000	27	60	\$8,000
Pumphouse roof - shingles - w ell #9	1	LS	\$2,500	8	30	\$2,500
Chlorination equipment - Walchem pump - w ell #9	1	LS	\$1,500	0	10	\$1,500
CAT 3-Phase Diesel D100-4 Generator - w ell #9	1	EA	\$55,000	9	25	\$55,000
<i>System 5 - Well #1 - Division #1</i>						
Well #1 (AHB681) - 8", 118' deep	1	EA	\$9,440	40	85	\$9,440
New source approval - w ell #1	1	LS	\$14,000	40	85	\$14,000
Well pump (40 hp) - w ell #1	1	EA	\$28,000	15	30	\$28,000
Variable speed drive - Yaskaw a P7, 40 hp - w ell #1	1	EA	\$7,000	5	20	\$7,000
Source meter - w ell #1	1	EA	\$2,500	6	15	\$2,500
Pump electronics - w ell #1	1	LS	\$10,000	15	30	\$10,000
Pumphouse structure - w ell #1	1	LS	\$8,000	15	60	\$8,000
Pumphouse roof - steel - w ell #1	1	LS	\$3,000	15	60	\$3,000
Chlorination equipment - LMI pump - w ell #1	1	LS	\$1,500	8	10	\$1,500

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS - CONTINUED						
<i>System 5 - Division 1 Booster Station</i>						
Division 1 booster pump 1 - 15 hp	1	EA	\$13,600	29	30	\$13,600
Division 1 pump controller - Yaskawa P1000, 15 hp	1	EA	\$7,000	17	20	\$7,000
Division 1 Hach CL monitoring equipment	1	LS	\$6,000	9	10	\$6,000
Division 1 booster pump 2 - 20 hp	1	EA	\$14,000	14	30	\$14,000
Division 1 booster pump controller - Aquavar 20 hp	1	LS	\$7,000	17	20	\$7,000
Pump electronics - Division 1 booster pump	1	LS	\$10,000	14	30	\$10,000
Pumphouse structure - Division 1 booster pump	1	LS	\$8,000	20	60	\$8,000
Pumphouse roof - steel - Division 1 booster pump	1	LS	\$3,000	20	60	\$3,000
Backup generator - Cummins 60kw	1	EA	\$60,000	47	50	\$60,000
<i>System 5 - Division 15 Booster Station</i>						
Division 15 booster pump - 20 hp	1	EA	\$14,000	22	30	\$14,000
Division 15 pump controller - Yaskawa P1000, 20 hp	1	EA	\$7,000	17	20	\$7,000
Pump electronics - Division 15 booster pump	1	LS	\$10,000	6	30	\$10,000
Pumphouse structure - Division 15 booster pump	1	LS	\$8,000	36	60	\$8,000
Pumphouse roof - shingles - Division 15 booster pump	1	LS	\$2,500	25	30	\$2,500
<i>System 5 - Anderson Booster Station - Division #13</i>						
Anderson booster pump 3.5 hp	1	EA	\$4,000	23	30	\$4,000
Anderson pump controller - Yaskawa 3.5 hp	1	EA	\$4,000	20	20	\$4,000
Pump electronics - Anderson booster pump	1	LS	\$2,000	30	30	\$2,000
Pumphouse structure - Anderson booster pump	1	LS	\$6,000	36	60	\$6,000
Pumphouse roof - shingles - Anderson booster pump	1	LS	\$1,800	6	30	\$1,800

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS - CONTINUED						
<i>System 5 - Bi-Directional Booster Station - Division #11</i>						
Bi-directional station pump - 10 hp	1	EA	\$8,000	23	30	\$8,000
Bi-directional station pump controller - Aquavar 10 hp	1	EA	\$6,000	13	20	\$6,000
Bi-directional Valves - 4 Cla-Val Valves	4	EA	\$5,000	6	30	\$20,000
Pump electronics - BiDirectional booster pump	1	LS	\$10,000	6	30	\$10,000
Pumphouse structure - BiDirectional booster pump	1	LS	\$10,000	36	60	\$10,000
Pumphouse roof - shingles - Bi-Directional booster pump	1	LS	\$2,500	6	30	\$2,500
<i>System 5 - Well #8 - Division #14</i>						
Well #8 (AHB679) - 8", 115' deep	1	EA	\$9,200	51	85	\$9,200
New source approval - w ell #8	1	LS	\$14,000	51	85	\$14,000
Well #8 pump (15 hp)	1	EA	\$11,000	25	30	\$11,000
Well #8 Pump controller - 15 hp	1	EA	\$7,000	19	20	\$7,000
Source meter - w ell #8	1	EA	\$2,500	6	15	\$2,500
Pump electronics - w ell #8	1	LS	\$10,000	6	30	\$10,000
Pumphouse structure - w ell #8	1	LS	\$8,000	26	60	\$8,000
Pumphouse roof - shingles - w ell #8	1	LS	\$2,500	8	30	\$2,500
<i>System 5 - Well #5 - Division #14</i>						
Well #5 (AHB678) - 8", 159' deep	1	EA	\$12,720	34	85	\$12,720
New source approval - w ell #5	1	LS	\$14,000	34	85	\$14,000
Well #5 pump (15 hp)	1	EA	\$12,000	6	30	\$12,000
Well #5 Pump controller - 15 hp	1	EA	\$7,000	9	20	\$7,000
Source meter - w ell #5	1	EA	\$2,500	6	15	\$2,500
Pump electronics - w ell #5	1	LS	\$10,000	6	30	\$10,000
Pumphouse structure - w ell #5	1	LS	\$8,000	9	60	\$8,000
Pumphouse roof - shingles - w ell #5	1	LS	\$2,500	8	30	\$2,500

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS - CONTINUED						
<i>System 5 - Well #7 - Division #8 Golf Course</i>						
Well #7 (AHB675) - 8", 63' deep	1	EA	\$7,000	51	85	\$7,000
New source approval - well #7	1	LS	\$14,000	51	85	\$14,000
Well #7 pump (5 hp)	1	EA	\$8,000	28	30	\$8,000
Well #7 Pump controller - 5 hp	1	EA	\$3,000	5	20	\$3,000
Source meter - well #7	1	EA	\$2,500	6	15	\$2,500
Pump electronics - well #7	1	LS	\$10,000	6	30	\$10,000
Pumphouse structure - well #7	1	LS	\$8,000	26	60	\$8,000
Pumphouse roof - shingles - well #7	1	LS	\$2,500	8	30	\$2,500
<i>System 5 - Well #3 - Lou Parsons Diesel - Division #5</i>						
Well #3 (AHB677) - 8", 51' deep	1	EA	\$6,500	31	85	\$6,500
New source approval - well #3	1	LS	\$14,000	31	85	\$14,000
Well #3 pump (5 hp)	1	EA	\$12,000	1	30	\$12,000
Well #3 Pump controller - 5 hp	1	EA	\$3,000	5	20	\$3,000
Source meter - well #3	1	EA	\$2,500	6	15	\$2,500
Pump electronics - well #3	1	LS	\$10,000	6	30	\$10,000
Pumphouse structure - well #3	1	LS	\$12,000	6	60	\$12,000
Pumphouse roof - steel - well #3	1	LS	\$5,000	6	60	\$5,000
<i>System 5 - Well #11 - Division #8 Golf Course</i>						
Well #11 (AHB676) - 8", 160' deep	1	EA	\$12,800	52	85	\$12,800
New source approval - well #11	1	LS	\$14,000	52	85	\$14,000
Well #11 pump (10 hp)	1	EA	\$12,000	1	30	\$12,000
Well #11 Pump controller - 10 hp	1	EA	\$5,000	5	20	\$5,000
Source meter - well #11	1	EA	\$2,500	6	15	\$2,500
Pump electronics - well #11	1	LS	\$10,000	6	30	\$10,000
Pumphouse structure - well #11	1	LS	\$8,000	27	60	\$8,000
Pumphouse roof - shingles - well #11	1	LS	\$2,500	8	30	\$2,500

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS - CONTINUED						
<i>System 5 - Division 10 Booster Station</i>						
Division 10 booster pump 1 - 25 hp	1	EA	\$18,000	28	30	\$18,000
Division 10 pump 1 controller - Aquaver 25 hp	1	EA	\$7,000	18	20	\$7,000
Division 10 booster pump 2 - 25 hp	1	EA	\$18,000	28	30	\$18,000
Division 10 pump 2 controller - Aquaver 25 hp	1	EA	\$7,000	18	20	\$7,000
Division 10 pumphouse electronics	1	LS	\$10,000	15	30	\$10,000
Division 10 pumphouse structure	1	LS	\$20,000	9	60	\$20,000
Division 10 pumphouse roof - steel	1	LS	\$8,000	9	60	\$8,000
Backup generator - Kohler 80 kw for Division 10	1	EA	\$70,000	41	50	\$70,000
Propane tank for generator - 1,000 gallon	1	EA	\$2,500	31	40	\$2,500
Aquaphon A200 w ater leak listening device	1	EA	\$9,000	17	20	\$9,000
Sound barrier / Insulation for generator	1	LS	\$2,000	48	50	\$2,000

Component	Quantity	Units	Cost/Unit	Remaining Life (Years)	Useful Life (Years)	Total Cost
3.2 WATER SUPPLY SYSTEMS - CONTINUED						
<i>System 5 General Expenditures</i>						
Distribution mains - Division 1	19,815	LF	\$120	9	80	\$2,377,800
Distribution mains - Divisions 10-13, 15-16	46,860	LF	\$120	19	80	\$5,623,200
Distribution mains - Middle zone	85,815	LF	\$120	25	80	\$10,297,800
Distribution mains - 2008 install	5,800	LF	\$120	56	80	\$696,000
Isolation valves in System 5	250	EA	\$1,200	3	30	\$300,000
Blow offs in System 5	50	EA	\$2,000	3	30	\$100,000
Air / Vacuum release valve in System 5	10	EA	\$3,000	3	30	\$30,000
PRV vaults in System 5	5	EA	\$3,000	3	30	\$15,000
Fire hydrants in System 5	40	EA	\$6,000	16	30	\$240,000
Division 1 Reservoir - 15'x26'; 59,600 gallons	1	EA	\$176,000	41	80	\$176,000
Division 15 Reservoir - 21.5'x20'; 50,500 gallons	1	EA	\$164,000	31	80	\$164,000
Eastside Reservoir 1 - 20.5'x26'; 79,500 gallons	1	EA	\$176,000	27	80	\$176,000
Eastside Reservoir 2 - 20.5'x26'; 79,500 gallons	1	EA	\$176,000	27	80	\$176,000
Eastside Reservoir 3 - 25'x30'; 132,100 gallons	1	EA	\$280,000	66	80	\$280,000
Division 10 Reservoir - 30'x30'; 158,600 gallons	1	EA	\$320,000	54	80	\$320,000
System 5 Reservoir overflow sensor system	1	LS	\$98,975	1	10	\$98,975
System 5 well level transducers	7	EA	\$5,711	1	10	\$39,980
System 5 well meter setters	1,519	EA	\$300	9	24	\$455,700
System 5 service meters	1,519	EA	\$300	12	15	\$455,700

3.20 SUMMARY OF ANNUAL ANTICIPATED EXPENSES

Using the conclusions described throughout “Section 3.0 Physical Analysis”, the following Table 3.20 lists the annual anticipated capital expenses for each reserve item in the year that we believe is most probable. All of these anticipated expenses already have inflation factored into them at the assumed level that is listed in “Section 4.3 Assumptions for Future Interest Rate and Inflation.”

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
3.2	WATER SUPPLY SYSTEMS												
<i>Immediate Planned General Water System Expenses</i>													
	2004 meter purchase loan repayment / 5 years left	\$115,000	\$118,450	\$122,004									
	Replace meter registers												
	Water comprehensive plan update	\$75,000					\$86,946					\$100,794	
	Water reservoir - cleaning/coating - phase 1 (Mount Rose)										\$45,667		
	Water reservoir - cleaning/coating - phase 2 (Division #1)										\$45,667		
	Water reservoir - cleaning/coating - phase 3 (Division #10)										\$45,667		
	Water reservoir - cleaning/coating - phase 4 (Division #15)										\$45,667		
	Well level transducer replacement allotment		\$100,940					\$117,017					\$135,655
	Perkins Portable Generator 30kw												
	Feasibility study to install new well system 5 (scada - fiber optic)	\$40,000											
	Install fiber optic to replace radio telemetry for wells/pump houses - phase 1 of 2	\$200,000											
	Install fiber optic to replace radio telemetry for wells/pump houses - phase 2 of 2		\$206,000										
<i>System 3 - Well #2 - Division #4</i>													
	Well #2 (AHB683) - 8", 225' deep												
	New source approval - well #2												
	Well pump (30 hp) - well #2												
	Variable speed drive - Yaskaway P7, 30 hp - well #2							\$8,358					
	Source meter - well #2							\$2,985					
	Pumphouse electronics - well #2												
	Pumphouse structure - well #2									\$10,134			
	Pumphouse roof - steel - well #2									\$4,434			
	Install Cummins Diesel 50 kw Generator at Well #2	\$85,000											
<i>System 3 - Well #10 - Division #4</i>													
	Well #10 - 8", 164' deep, AHB682												
	New source approval - well #10												
	Well pump (30 hp) - well #10												
	Variable speed drive - Yaskaway P7, 30 hp - well#10							\$8,358					
	Source meter - well #10							\$2,985					
	Pumphouse electronics - well #10												
	Pumphouse structure - well #10												
	Pumphouse roof - shingles - well #10									\$3,167			

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<i>System 3 General Expenditures</i>												
Distribution mains and service connections in System 3												
Isolation valves in System 3				\$104,902								
Blowoffs in System 3				\$26,225								
Air / Vacuum release valve in System 3				\$13,113								
Fire hydrants in System 3												
Concrete reservoir - 26'X35', 138,900 gallons in System 3												
Systems 3 Radio Telemetry sites				\$13,113								
Water meter setters in System 3												\$164,447
Service meters in System 3												
<i>System 5 - Well #9 - Division #1</i>												
Well #9 (AHB680) - 8", 208' deep												
New source approval - well #9												
Well pump (50 hp) - well #9												
Variable speed drive - Yaskawa P7, 60 hp - well #9						\$9,854						
Source meter - well #9							\$2,985					
Pump electronics - well #9												
Pumphouse structure - well #9												
Pumphouse roof - shingles - well #9									\$3,167			
Chlorination equipment - Walchem pump - well #9	\$1,500										\$2,016	
CAT 3-Phase Diesel D100-4 Generator - well #9										\$71,763		
<i>System 5 - Well #1 - Division #1</i>												
Well #1 (AHB681) - 8", 118' deep												
New source approval - well #1												
Well pump (40 hp) - well #1												
Variable speed drive - Yaskawa P7, 40 hp - well #1						\$8,115						
Source meter - well #1							\$2,985					
Pump electronics - well #1												
Pumphouse structure - well #1												
Pumphouse roof - steel - well #1												
Chlorination equipment - LMI pump - well #1									\$1,900			

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<i>System 5 - Division 1 Booster Station</i>												
Division 1 booster pump 1 - 15 hp												
Division 1 pump controller - Yaskawa P1000, 15 hp												
Division 1 Hach CL monitoring equipment										\$7,829		
Division 1 booster pump 2 - 20 hp												
Division 1 booster pump controller - Aquavar 20 hp												
Pump electronics - Division 1 booster pump												
Pumphouse structure - Division 1 booster pump												
Pumphouse roof - steel - Division 1 booster pump												
Backup generator - Cummins 60kw												
<i>System 5 - Division 15 Booster Station</i>												
Division 15 booster pump - 20 hp												
Division 15 pump controller - Yaskawa P1000, 20 hp												
Pump electronics - Division 15 booster pump							\$11,941					
Pumphouse structure - Division 15 booster pump												
Pumphouse roof - shingles - Division 15 booster pump												
<i>System 5 - Anderson Booster Station - Division #13</i>												
Anderson booster pump 3.5 hp												
Anderson pump controller - Yaskawa 3.5 hp												
Pump electronics - Anderson booster pump												
Pumphouse structure - Anderson booster pump												
Pumphouse roof - shingles - Anderson booster pump							\$2,149					
<i>System 5 - Bi-Directional Booster Station - Division #11</i>												
Bi-directional station pump - 10 hp												
Bi-directional station pump controller - Aquavar 10 hp												
Bi-directional Valves - 4 Cla-Val Valves							\$23,881					
Pump electronics - BiDirectional booster pump							\$11,941					
Pumphouse structure - BiDirectional booster pump												
Pumphouse roof - shingles - Bi-Directional booster pump							\$2,985					

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<i>System 5 - Well #8 - Division #14</i>												
Well #8 (AHB679) - 8", 115' deep												
New source approval - well #8												
Well #8 pump (15 hp)												
Well #8 Pump controller - 15 hp												
Source meter - well #8							\$2,985					
Pump electronics - well #8							\$11,941					
Pumphouse structure - well #8												
Pumphouse roof - shingles - well #8									\$3,167			
<i>System 5 - Well #5 - Division #14</i>												
Well #5 (AHB678) - 8", 159' deep												
New source approval - well #5												
Well #5 pump (15 hp)							\$14,329					
Well #5 Pump controller - 15 hp										\$9,133		
Source meter - well #5							\$2,985					
Pump electronics - well #5							\$11,941					
Pumphouse structure - well #5										\$10,438		
Pumphouse roof - shingles - well #5									\$3,167			
<i>System 5 - Well #7 - Division #8 Golf Course</i>												
Well #7 (AHB675) - 8", 63' deep												
New source approval - well #7												
Well #7 pump (5 hp)												
Well #7 Pump controller - 5 hp							\$3,478					
Source meter - well #7							\$2,985					
Pump electronics - well #7							\$11,941					
Pumphouse structure - well #7												
Pumphouse roof - shingles - well #7									\$3,167			

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<i>System 5 General Expenditures</i>												
Distribution mains - Division 1										\$3,102,490		
Distribution mains - Divisions 10-13, 15-16												
Distribution mains - Middle zone												
Distribution mains - 2008 install												
Isolation valves in System 5				\$327,818								
Blowoffs in System 5				\$109,273								
Air / Vacuum release valve in System 5				\$32,782								
PRV vaults in System 5				\$16,391								
Fire hydrants in System 5												
Division 1 Reservoir - 15'x26'; 59,600 gallons												
Division 15 Reservoir - 21.5'x20'; 50,500 gallons												
Eastside Reservoir 1 - 20.5'x26'; 79,500 gallons												
Eastside Reservoir 2 - 20.5'x26'; 79,500 gallons												
Eastside Reservoir 3 - 25'x30'; 132,100 gallons												
Division 10 Reservoir - 30'x30'; 158,600 gallons												
System 5 Reservoir overflow sensor system		\$101,944										\$137,005
System 5 well level transducers		\$41,179										\$55,342
System 5 well meter setters										\$594,585		
System 5 service meters												
ANNUAL EXPENSES BY YEAR	\$516,500	\$593,234	\$122,004	\$643,616	\$0	\$117,666	\$307,827	\$0	\$35,470	\$4,015,439	\$102,810	\$492,448

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
<i>System 3 General Expenditures</i>													
	Distribution mains and service connections in System 3		\$4,599,448										
	Isolation valves in System 3												
	Blowoffs in System 3												
	Air / Vacuum release valve in System 3												
	Fire hydrants in System 3					\$158,866							
	Concrete reservoir - 26'X35', 138,900 gallons in System 3												
	Systems 3 Radio Telemetry sites							\$20,429					
	Water meter setters in System 3												
	Service meters in System 3	\$169,380											
<i>System 5 - Well #9 - Division #1</i>													
	Well #9 (AHB680) - 8", 208' deep												
	New source approval - well #9												
	Well pump (50 hp) - well #9												
	Variable speed drive - Yaskawa P7, 60 hp - well #9												
	Source meter - well #9										\$4,651		
	Pump electronics - well #9				\$15,580								
	Pumphouse structure - well #9												
	Pumphouse roof - shingles - well #9												
	Chlorination equipment - Walchem pump - well #9									\$2,709			
	CAT 3-Phase Diesel D100-4 Generator - well #9												
<i>System 5 - Well #1 - Division #1</i>													
	Well #1 (AHB681) - 8", 118' deep												
	New source approval - well #1												
	Well pump (40 hp) - well #1				\$43,623								
	Variable speed drive - Yaskawa P7, 40 hp - well #1												
	Source meter - well #1										\$4,651		
	Pump electronics - well #1				\$15,580								
	Pumphouse structure - well #1				\$12,464								
	Pumphouse roof - steel - well #1				\$4,674								
	Chlorination equipment - LMI pump - well #1							\$2,554					

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
System 5 General Expenditures												
Distribution mains - Division 1												
Distribution mains - Divisions 10-13, 15-16								\$9,860,315				
Distribution mains - Middle zone												
Distribution mains - 2008 install												
Isolation valves in System 5												
Blowoffs in System 5												
Air / Vacuum release valve in System 5												
PRV vaults in System 5												
Fire hydrants in System 5					\$385,130							
Division 1 Reservoir - 15'x26'; 59,600 gallons												
Division 15 Reservoir - 21.5'x20'; 50,500 gallons												
Eastside Reservoir 1 - 20.5'x26'; 79,500 gallons												
Eastside Reservoir 2 - 20.5'x26'; 79,500 gallons												
Eastside Reservoir 3 - 25'x30'; 132,100 gallons												
Division 10 Reservoir - 30'x30'; 158,600 gallons												
System 5 Reservoir overflow sensor system										\$184,123		
System 5 well level transducers										\$74,375		
System 5 well meter setters												
System 5 service meters	\$649,719											
ANNUAL EXPENSES BY YEAR	\$819,100	\$4,608,259	\$36,302	\$224,347	\$829,633	\$49,585	\$46,817	#####	\$165,259	\$482,663	\$26,825	\$23,683

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required		2047	2048	2049	2050	2051	2052	2053
3.2	WATER SUPPLY SYSTEMS							
<i>Immediate Planned General Water System Expenses</i>								
	2004 meter purchase loan repayment / 5 years left							
	Replace meter registers							
	Water comprehensive plan update		\$157,033					\$182,045
	Water reservoir - cleaning/coating - phase 1 (Mount Rose)						\$82,480	
	Water reservoir - cleaning/coating - phase 2 (Division #1)						\$82,480	
	Water reservoir - cleaning/coating - phase 3 (Division #10)						\$82,480	
	Water reservoir - cleaning/coating - phase 4 (Division #15)						\$82,480	
	Well level transducer replacement allotment			\$211,346				
	Perkins Portable Generator 30kw							
	Feasibility study to install new well system 5 (scada - fiber optic)							\$97,090
	Install fiber optic to replace radio telemetry for wells/pump houses - phase 1 of 2							\$485,452
	Install fiber optic to replace radio telemetry for wells/pump houses - phase 2 of 2							
<i>System 3 - Well #2 - Division #4</i>								
	Well #2 (AHB683) - 8", 225' deep							
	New source approval - well #2							
	Well pump (30 hp) - well #2							
	Variable speed drive - Yaskaway P7, 30 hp - well #2			\$15,096				
	Source meter - well #2							
	Pumphouse electronics - well #2							
	Pumphouse structure - well #2							
	Pumphouse roof - steel - well #2							
	Install Cummins Diesel 50 kw Generator at Well #2							
<i>System 3 - Well #10 - Division #4</i>								
	Well #10 - 8", 164' deep, AHB682							
	New source approval - well #10							
	Well pump (30 hp) - well #10							
	Variable speed drive - Yaskaway P7, 30 hp - well#10			\$15,096				
	Source meter - well #10							
	Pumphouse electronics - well #10							
	Pumphouse structure - well #10				\$17,770			
	Pumphouse roof - shingles - well #10							

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required		2047	2048	2049	2050	2051	2052	2053
<i>System 3 General Expenditures</i>								
	Distribution mains and service connections in System 3							
	Isolation valves in System 3							
	Blowoffs in System 3							
	Air / Vacuum release valve in System 3							
	Fire hydrants in System 3							
	Concrete reservoir - 26'X35', 138,900 gallons in System 3							
	Systems 3 Radio Telemetry sites							
	Water meter setters in System 3							
	Service meters in System 3				\$263,889			
<i>System 5 - Well #9 - Division #1</i>								
	Well #9 (AHB680) - 8", 208' deep							
	New source approval - well #9							
	Well pump (50 hp) - well #9						\$82,480	
	Variable speed drive - Yaskawa P7, 60 hp - well #9		\$17,797					
	Source meter - well #9							
	Pump electronics - well #9							
	Pumphouse structure - well #9				\$17,770			
	Pumphouse roof - shingles - well #9							
	Chlorination equipment - Walchem pump - well #9							\$3,641
	CAT 3-Phase Diesel D100-4 Generator - well #9							
<i>System 5 - Well #1 - Division #1</i>								
	Well #1 (AHB681) - 8", 118' deep							
	New source approval - well #1							
	Well pump (40 hp) - well #1							
	Variable speed drive - Yaskawa P7, 40 hp - well #1		\$14,656					
	Source meter - well #1							
	Pump electronics - well #1							
	Pumphouse structure - well #1							
	Pumphouse roof - steel - well #1							
	Chlorination equipment - LMI pump - well #1					\$3,432		

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required		2047	2048	2049	2050	2051	2052	2053
<i>System 5 - Division 1 Booster Station</i>								
	Division 1 booster pump 1 - 15 hp						\$32,049	
	Division 1 pump controller - Yaskawa P1000, 15 hp							
	Division 1 Hach CL monitoring equipment						\$14,139	
	Division 1 booster pump 2 - 20 hp							
	Division 1 booster pump controller - Aquavar 20 hp							
	Pump electronics - Division 1 booster pump							
	Pumphouse structure - Division 1 booster pump							
	Pumphouse roof - steel - Division 1 booster pump							
	Backup generator - Cummins 60kw							
<i>System 5 - Division 15 Booster Station</i>								
	Division 15 booster pump - 20 hp							
	Division 15 pump controller - Yaskawa P1000, 20 hp							
	Pump electronics - Division 15 booster pump							
	Pumphouse structure - Division 15 booster pump							
	Pumphouse roof - shingles - Division 15 booster pump		\$5,234					
<i>System 5 - Anderson Booster Station - Division #13</i>								
	Anderson booster pump 3.5 hp							
	Anderson pump controller - Yaskawa 3.5 hp							
	Pump electronics - Anderson booster pump							\$4,855
	Pumphouse structure - Anderson booster pump							
	Pumphouse roof - shingles - Anderson booster pump							
<i>System 5 - Bi-Directional Booster Station - Division #11</i>								
	Bi-directional station pump - 10 hp							
	Bi-directional station pump controller - Aquavar 10 hp							
	Bi-directional Valves - 4 Cla-Val Valves							
	Pump electronics - BiDirectional booster pump							
	Pumphouse structure - BiDirectional booster pump							
	Pumphouse roof - shingles - Bi-Directional booster pump							

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required		2047	2048	2049	2050	2051	2052	2053
<i>System 5 - Well #8 - Division #14</i>								
	Well #8 (AHB679) - 8", 115' deep							
	New source approval - well #8							
	Well #8 pump (15 hp)		\$23,032					
	Well #8 Pump controller - 15 hp							
	Source meter - well #8							
	Pump electronics - well #8							
	Pumphouse structure - well #8			\$17,253				
	Pumphouse roof - shingles - well #8							
<i>System 5 - Well #5 - Division #14</i>								
	Well #5 (AHB678) - 8", 159' deep							
	New source approval - well #5							
	Well #5 pump (15 hp)							
	Well #5 Pump controller - 15 hp						\$16,496	
	Source meter - well #5							
	Pump electronics - well #5							
	Pumphouse structure - well #5							
	Pumphouse roof - shingles - well #5							
<i>System 5 - Well #7 - Division #8 Golf Course</i>								
	Well #7 (AHB675) - 8", 63' deep							
	New source approval - well #7							
	Well #7 pump (5 hp)					\$18,303		
	Well #7 Pump controller - 5 hp		\$6,281					
	Source meter - well #7							
	Pump electronics - well #7							
	Pumphouse structure - well #7			\$17,253				
	Pumphouse roof - shingles - well #7							

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required	2047	2048	2049	2050	2051	2052	2053
<i>System 5 - Well #3 - Lou Parsons Diesel - Division #5</i>							
Well #3 (AHB677) - 8", 51' deep							
New source approval - well #3							
Well #3 pump (5 hp)							
Well #3 Pump controller - 5 hp		\$6,281					
Source meter - well #3							
Pump electronics - well #3							
Pumphouse structure - well #3							
Pumphouse roof - steel - well #3							
<i>System 5 - Well #11 - Division #8 Golf Course</i>							
Well #11 (AHB676) - 8", 160' deep							
New source approval - well #11							
Well #11 pump (10 hp)							
Well #11 Pump controller - 10 hp		\$10,469					
Source meter - well #11							
Pump electronics - well #11							
Pumphouse structure - well #11				\$17,770			
Pumphouse roof - shingles - well #11							
<i>System 5 - Division 10 Booster Station</i>							
Division 10 booster pump 1 - 25 hp					\$41,183		
Division 10 pump 1 controller - Aquaver 25 hp							
Division 10 booster pump 2 - 25 hp					\$41,183		
Division 10 pump 2 controller - Aquaver 25 hp							
Division 10 pumphouse electronics							
Division 10 pumphouse structure							
Division 10 pumphouse roof - steel							
Backup generator - Kohler 80 kw for Division 10							
Propane tank for generator - 1,000 gallon							
Aquaphon A200 water leak listening device							
Sound barrier / Insulation for generator							

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 3.20: ANNUAL CAPITAL EXPENSES

Action Required		2047	2048	2049	2050	2051	2052	2053
System 5	General Expenditures							
	Distribution mains - Division 1							
	Distribution mains - Divisions 10-13, 15-16							
	Distribution mains - Middle zone		\$21,561,306					
	Distribution mains - 2008 install							
	Isolation valves in System 5							
	Blowoffs in System 5							
	Air / Vacuum release valve in System 5							
	PRV vaults in System 5							
	Fire hydrants in System 5							
	Division 1 Reservoir - 15'x26'; 59,600 gallons							
	Division 15 Reservoir - 21.5'x20'; 50,500 gallons							
	Eastside Reservoir 1 - 20.5'x26'; 79,500 gallons				\$390,947			
	Eastside Reservoir 2 - 20.5'x26'; 79,500 gallons				\$390,947			
	Eastside Reservoir 3 - 25'x30'; 132,100 gallons							
	Division 10 Reservoir - 30'x30'; 158,600 gallons							
	System 5 Reservoir overflow sensor system							
	System 5 well level transducers							
	System 5 well meter setters							
	System 5 service meters				\$1,012,241			
ANNUAL EXPENSES BY YEAR		\$0	\$21,802,091	\$276,044	\$2,111,335	\$104,101	\$475,084	\$773,083

4.0 FINANCIAL ANALYSIS

The financial analysis in this Reserve Study is a proprietary system that was developed by Samdal & Associates. We have provided the funding method that we believe will most adequately fund the reserves of this Association.

4.1 CURRENT FINANCIAL INFORMATION AND CURRENT FUNDING PLAN

The Association’s Reserve Fund balance was \$708,271 as of June 30, 2023 (Balance provided by Karen Laverdiere). According to our calculations detailed in this report, the Reserve Fund balance required for “Full Funding” of this property at this time is \$19,576,350. Therefore, the property is 3.6% funded.

There is not a regular Reserve Fund contribution. This study will help the Board to establish a regular annual contribution to the Reserve Fund.

This property is currently
3.6% funded.

4.2 RECOMMENDED RESERVE FUNDING PLAN

Full Funding is the ideal position for any property and represents a strong financial position. We recommend that all properties be Fully Funded, as Full Funding allows Associations to maintain their properties adequately and minimizes their risk of unplanned special assessments.

Ideally, the Association should be Fully Funded immediately; however, we recognize that financial realities can sometimes make this difficult. Therefore, we have provided three different plans to get the Association Fully Funded within three different time frames: Immediately, Within Five Years, and Within Ten Years. It is to the Association’s benefit to be Fully Funded as soon as possible.

Our funding recommendations are as follows:

Option One: Immediate Full Funding

If the Association desires to be Fully Funded immediately, then based on the anticipated expenditures the Association will need to immediately contribute a total of \$18,868,079 to the Reserve Fund. Following this initial contribution, the funding plan necessary to maintain a Fully Funded Capital Reserve Fund for the duration of this study will be a total property contribution of \$637,573 per year in the initial year. This annual contribution will need to be increased 3% each subsequent year to maintain Full Funding and to account for inflation.

For a detailed look at the annual funding contribution necessary per year, see Table 4.5 “Reserve Fund Balance Sheet” (Section 4.5).

-OR-

Option One

Immediate
Contribution:

\$18,868,079

Annual Contribution
Thereafter:

2024 \$637,573

(with 3% annual
increase thereafter)

Option Two: Full Funding Within Five Years

There is currently a “full funding” deficiency of \$18,868,079. This option makes up this deficiency over the next five years. Starting in 2024 for five years through 2028, the Association will make up their Reserve Fund deficiency by contributing \$4,637,504 annually (which includes \$3,999,931 in make-up funds and \$637,573 in capital maintenance funds that will increase annually with inflation).

If this plan is followed, the Association will be Fully Funded by the start of 2029. From this point on, the funding plan will be identical to funding plan listed above in the “Immediate Full Funding” option to maintain Full Funding. This means that the Association will reduce their Reserve Fund contribution to \$739,122 in 2029. This 2029 annual contribution will need to be increased 3% each subsequent year (to account for inflation) for the duration of this 30-year study to maintain Full Funding and to account for inflation.

For a detailed look at the annual funding contribution necessary per year, see Table 4.5 “Reserve Fund Balance Sheet” (Section 4.5).

-OR-

Option Three: Full Funding Within Ten Years

There is currently a “full funding” deficiency of \$18,868,079. This option makes up this deficiency over the next ten years. Starting in 2024 for ten years through 2033, the Association will make up their Reserve Fund deficiency by contributing \$2,785,059 annually (which includes \$2,147,485 in make-up funds and \$637,573 in capital maintenance funds that will increase annually with inflation).

If this plan is followed, the Association will be Fully Funded by the start of 2034. From this point on, the funding plan will be identical to funding plan listed above in the “Immediate Full Funding” option to maintain Full Funding. This means that the Association will reduce their Reserve Fund contribution to \$856,845 in 2034. This 2034 annual contribution will need to be increased 3% each subsequent year for the duration of this 30-year study to maintain Full Funding and to account for inflation.

For a detailed look at the annual funding contribution necessary per year, see Table 4.5 “Reserve Fund Balance Sheet” (Section 4.5).

Other funding options are also possible. Section 4.6 details other common funding methods as well. It is up to the Association to decide which funding option is best for them.

<u>Option Two</u>	
Annual Contribution:	
2024	\$4,637,504
Increasing at 3% per year through:	
2028	\$4,717,525
At year end, full funding will be achieved. Then:	
2029	\$739,122
(with 3% annual increase thereafter)	

<u>Option Three</u>	
Annual Contribution:	
2024	\$2,785,059
Increasing at 3% per year through:	
2033	\$2,979,374
At year end, full funding will be achieved. Then:	
2034	\$856,845
(plus 3% annual increase thereafter)	

4.3 OTHER REQUIRED FUNDING PLAN OPTIONS

Per Washington State RCW 64.90.550, our Reserve Study is required to provide the following funding plans:

- **30-Year Make up** - Funding Plan necessary for the Association Reserve Fund to reach a Full Funding Level in 30 years.
- **Baseline Funding** - Minimum level of funding required in order to maintain the Reserve Fund above zero while paying for all components listed in Table 3.1 - Component Assessment and Valuation Table.

Special Note: Because these are “bare minimum” funding options that increase an Association’s risk for special assessments (and financial instability), we do not recommend either of these funding options. We recommend that the Association obtain a level of Full Funding as soon as possible to ensure that the Association has the resources necessary to adequately maintain its collective property and minimize the burden of special assessments.

These required options are as follows:

Option Four: Full Funding in 30 Years

There is currently a “full funding” deficiency of \$18,868,079. This option makes up this deficiency over the next thirty years. Starting in 2024 for thirty years through 2053, the Association will make up their Reserve Fund deficiency by contributing \$1,572,170 annually (which includes \$934,596 in make-up funds and \$637,573 in capital maintenance funds that will increase annually with inflation).

If this plan is followed, the Association will be Fully Funded by the start of 2054.

For a detailed look at the annual funding contribution necessary per year, see Table 4.5 “Reserve Fund Balance Sheet” (Section 4.5).

-OR-

Option Five: Baseline Funding – Keeping Reserve Balance above Zero

The funding plan necessary to maintain the Reserve Fund above zero for the duration of this study will be an annual contribution of \$1,073,350 per year in the initial year. This annual contribution will need to be increased 3% each subsequent year to maintain the Reserve Fund above zero and to account for inflation.

For a detailed look at the annual funding contribution necessary per year, see Table 4.5 “Reserve Fund Balance Sheet” (Section 4.5).

Option Four	
Annual Contribution:	
2024	\$1,572,170
Increasing at 3% per year through:	
2053	\$2,437,080

Option Five	
Annual Contribution:	
\$1,073,350	
(with 3% annual increase thereafter)	

4.4 ASSUMPTIONS FOR FUTURE INTEREST RATE AND INFLATION

For the purposes of this report, we have assumed that the inflation rate over the next 30 years will average 3%. This is based on historical averages over the last 25 years and our conservative best guess for the future. This percentage can vary greatly just as global economic conditions can vary, which is one reason why this Reserve Study should be updated annually per Washington RCW 64.90.550, which we provide complimentary over the next two years with this Reserve Study (see Appendix).

For the purpose of this study, we will assume that the Association manages their money in the Reserve Fund so that the average interest rate return on its money will be equal to that of inflation. This is a conservative estimate given that since 1965, the average yield between short term treasuries and inflation has been 1.04%, which means that these relatively conservative investments have been able to outpace inflation over the long term (according to Crestmont Research, www.crestmontresearch.com). Since we have assumed that the inflation rate over the duration of this study will average 3%, we have conservatively also assumed that the Reserve Fund average interest rate will equal 3%. Again, this does not reflect current averages but rather a best guess of the future assuming you have invested effectively.

A common strategy is to invest in multiple accounts. Funds that will be necessary in the shorter term must be kept in a relatively liquid account. Funds that are not allotted for near future planned expenditures can be deposited into longer term investments which frequently earn higher interest rates. Consult with a qualified financial advisor for the best solution for your Association.

4.5 ANNUAL FUND BALANCES; ANNUAL FUNDING TABLE AND FIGURES

The table and figures shown in this section are intended to give the Association a clearer view of the likely future financial position that the Association will be in, provided that the reserve funding plan is followed.

- Table 4.5: “Reserve Fund Balance Sheet”. This table lists annual revenue, expenses, and year end reserve fund balances. All Section 4.5 Figures are based on this data.
- Figure 4.5A-1: “Comparison of Funding Plans -- Reserve Fund Balances Through 2053”. This line graph depicts the funding balances of the proposed funding options vs. the current. Note the current plan, in dotted red, falls below zero in several places. This represents insufficient funding for repairs needed in these years.
- Figure 4.5A-2: “Comparison of Funding Plans -- Reserve Fund Balances Through 2033”. This line graph focuses on the next ten years, comparing the proposed plans to get the Association to a Full Funding status.
- Figure 4.5B: “Comparison of Funding Plans -- Association Contributions to Reserve Fund by Year”
- Figure 4.5C: “Comparison of Funding Plans – Percentage of Full Funding by Year”

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 4.5: RESERVE FUND BALANCE SHEET

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
FULL FUNDING WITHIN 10 YEARS											
Beginning Reserve Balance	708,271	198,577	2,429,237	5,224,529	7,594,240	10,708,909	13,818,801	16,850,828	20,308,767	23,857,623	23,497,152
Full Funding Annual Maintenance Funding	-	637,573	656,701	676,402	696,694	717,595	739,122	761,296	784,135	807,659	831,889
Planned Special Assessments / Make up Funds		2,147,485	2,147,485	2,147,485	2,147,485	2,147,485	2,147,485	2,147,485	2,147,485	2,147,485	2,147,485
Annual Total Property Contribution to The Reserve Fund	-	2,785,059	2,804,186	2,823,887	2,844,179	2,865,080	2,886,608	2,908,782	2,931,620	2,955,144	2,979,374
Average Monthly Contribution to the Reserve Fund per Unit		114.39	115.17	115.98	116.81	117.67	118.56	119.47	120.40	121.37	122.37
Annual Capital Expenses	516,500	593,234	122,004	643,616	-	117,666	307,827	-	35,470	4,015,439	102,810
Interest Income	6,806	38,835	113,110	189,440	270,490	362,478	453,246	549,157	652,705	699,824	748,063
Ending Reserve Balance	198,577	2,429,237	5,224,529	7,594,240	10,708,909	13,818,801	16,850,828	20,308,767	23,857,623	23,497,152	27,121,780
Percentage of Full Funding	1.0%	12.5%	25.5%	35.9%	47.6%	58.1%	67.5%	76.7%	85.1%	91.7%	100.0%
<i>Yellow Highlighted Cells Represent Make-Up Funds</i>											
FULL FUNDING WITHIN 30 YEARS											
Beginning Reserve Balance	708,271	198,577	1,198,154	2,725,432	3,789,087	5,558,519	7,282,817	8,887,682	10,875,643	12,910,423	10,990,454
Full Funding Annual Maintenance Funding	-	637,573	656,701	676,402	696,694	717,595	739,122	761,296	784,135	807,659	831,889
Planned Special Assessments / Make up Funds		934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596
Annual Total Property Contribution to The Reserve Fund	-	1,572,170	1,591,297	1,610,998	1,631,290	1,652,191	1,673,719	1,695,892	1,718,731	1,742,255	1,766,485
Average Monthly Contribution to the Reserve Fund per Unit		64.57	65.36	66.17	67.00	67.86	68.74	69.65	70.59	71.56	72.55
Annual Capital Expenses	516,500	593,234	122,004	643,616	-	117,666	307,827	-	35,470	4,015,439	102,810
Interest Income	6,806	20,641	57,984	96,274	138,142	189,773	238,973	292,069	351,518	353,215	354,669
Ending Reserve Balance	198,577	1,198,154	2,725,432	3,789,087	5,558,519	7,282,817	8,887,682	10,875,643	12,910,423	10,990,454	13,008,798
Percentage of Full Funding	1.0%	6.2%	13.3%	17.9%	24.7%	30.6%	35.6%	41.1%	46.1%	42.9%	48.0%
<i>Yellow Highlighted Cells Represent Make-Up Funds</i>											
BASELINE FUNDING											
Beginning Reserve Balance	708,271	198,577	691,852	1,710,908	2,264,763	3,523,177	4,735,627	5,828,223	7,303,930	8,826,933	6,396,153
Full Funding Annual Maintenance Funding	-	1,073,350	1,105,551	1,138,717	1,172,879	1,208,065	1,244,307	1,281,636	1,320,085	1,359,688	1,400,478
Planned Special Assessments / Make up Funds											
Annual Total Property Contribution to The Reserve Fund	-	1,073,350	1,105,551	1,138,717	1,172,879	1,208,065	1,244,307	1,281,636	1,320,085	1,359,688	1,400,478
Average Monthly Contribution to the Reserve Fund per Unit		44.08	45.41	46.77	48.17	49.62	51.11	52.64	54.22	55.84	57.52
Annual Capital Expenses	516,500	593,234	122,004	643,616	-	117,666	307,827	-	35,470	4,015,439	102,810
Interest Income	6,806	13,159	35,509	58,754	85,536	122,051	156,116	194,071	238,387	224,972	211,350
Ending Reserve Balance	198,577	691,852	1,710,908	2,264,763	3,523,177	4,735,627	5,828,223	7,303,930	8,826,933	6,396,153	7,905,171
Percentage of Full Funding	1.0%	3.6%	8.3%	10.7%	15.6%	19.9%	23.4%	27.6%	31.5%	25.0%	29.1%

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 4.5: RESERVE FUND BALANCE SHEET

	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
FULL FUNDING WITHIN 10 YEARS											
Beginning Reserve Balance	27,121,780	28,305,296	29,218,858	26,340,704	28,044,421	29,636,894	30,692,141	32,601,041	34,601,172	26,371,839	28,130,015
Full Funding Annual Maintenance Funding	856,845	882,551	909,027	936,298	964,387	993,319	1,023,118	1,053,812	1,085,426	1,117,989	1,151,529
Planned Special Assessments / Make up Funds											
Annual Total Property Contribution to The Reserve Fund	856,845	882,551	909,027	936,298	964,387	993,319	1,023,118	1,053,812	1,085,426	1,117,989	1,151,529
Average Monthly Contribution to the Reserve Fund per Unit	35.19	36.25	37.33	38.45	39.61	40.80	42.02	43.28	44.58	45.92	47.29
Annual Capital Expenses	492,448	819,100	4,608,259	36,302	224,347	829,633	49,585	46,817	10,215,839	165,259	482,663
Interest Income	819,119	850,111	821,077	803,721	852,433	891,562	935,367	993,136	901,079	805,446	853,933
Ending Reserve Balance	28,305,296	29,218,858	26,340,704	28,044,421	29,636,894	30,692,141	32,601,041	34,601,172	26,371,839	28,130,015	29,652,814
Percentage of Full Funding	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<i>Yellow Highlighted Cells Represent Make-Up Funds</i>											
FULL FUNDING WITHIN 30 YEARS											
Beginning Reserve Balance	13,008,798	14,717,541	16,172,085	13,851,143	16,128,788	18,312,408	19,976,536	22,512,583	25,158,676	17,594,682	20,038,159
Full Funding Annual Maintenance Funding	856,845	882,551	909,027	936,298	964,387	993,319	1,023,118	1,053,812	1,085,426	1,117,989	1,151,529
Planned Special Assessments / Make up Funds	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596
Annual Total Property Contribution to The Reserve Fund	1,791,442	1,817,147	1,843,624	1,870,894	1,898,983	1,927,915	1,957,715	1,988,408	2,020,022	2,052,585	2,086,125
Average Monthly Contribution to the Reserve Fund per Unit	73.58	74.63	75.72	76.84	77.99	79.18	80.41	81.67	82.96	84.30	85.68
Annual Capital Expenses	492,448	819,100	4,608,259	36,302	224,347	829,633	49,585	46,817	10,215,839	165,259	482,663
Interest Income	409,749	456,497	443,693	443,053	508,983	565,846	627,918	704,501	631,823	556,150	625,197
Ending Reserve Balance	14,717,541	16,172,085	13,851,143	16,128,788	18,312,408	19,976,536	22,512,583	25,158,676	17,594,682	20,038,159	22,266,818
Percentage of Full Funding	52.0%	55.3%	52.6%	57.5%	61.8%	65.1%	69.1%	72.7%	66.7%	71.2%	75.1%
<i>Yellow Highlighted Cells Represent Make-Up Funds</i>											
BASELINE FUNDING											
Beginning Reserve Balance	7,905,171	9,106,622	10,056,488	7,234,096	9,014,166	10,704,770	11,881,163	13,935,517	16,106,758	8,075,601	10,060,489
Full Funding Annual Maintenance Funding	1,442,493	1,485,767	1,530,340	1,576,251	1,623,538	1,672,244	1,722,412	1,774,084	1,827,307	1,882,126	1,938,589
Planned Special Assessments / Make up Funds											
Annual Total Property Contribution to The Reserve Fund	1,442,493	1,485,767	1,530,340	1,576,251	1,623,538	1,672,244	1,722,412	1,774,084	1,827,307	1,882,126	1,938,589
Average Monthly Contribution to the Reserve Fund per Unit	59.24	61.02	62.85	64.74	66.68	68.68	70.74	72.86	75.05	77.30	79.62
Annual Capital Expenses	492,448	819,100	4,608,259	36,302	224,347	829,633	49,585	46,817	10,215,839	165,259	482,663
Interest Income	251,406	283,199	255,526	240,122	291,413	333,782	381,527	443,975	357,375	268,021	323,654
Ending Reserve Balance	9,106,622	10,056,488	7,234,096	9,014,166	10,704,770	11,881,163	13,935,517	16,106,758	8,075,601	10,060,489	11,840,069
Percentage of Full Funding	32.2%	34.4%	27.5%	32.1%	36.1%	38.7%	42.7%	46.5%	30.6%	35.8%	39.9%

LEVEL 3 RESERVE STUDY FOR LAKE CUSHMAN MAINTENANCE COMPANY - WATER SUPPLY SYSTEM

TABLE 4.5: RESERVE FUND BALANCE SHEET

	2045	2046	2047	2048	2049	2050	2051	2052	2053
FULL FUNDING WITHIN 10 YEARS									
Beginning Reserve Balance	29,652,814	31,719,036	33,886,550	36,180,328	16,452,112	18,020,452	17,813,670	19,679,897	21,268,687
Full Funding Annual Maintenance Funding	1,186,074	1,221,657	1,258,306	1,296,056	1,334,937	1,374,985	1,416,235	1,458,722	1,502,484
Planned Special Assessments / Make up Funds									
Annual Total Property Contribution to The Reserve Fund	1,186,074	1,221,657	1,258,306	1,296,056	1,334,937	1,374,985	1,416,235	1,458,722	1,502,484
Average Monthly Contribution to the Reserve Fund per Unit	48.71	50.17	51.68	53.23	54.83	56.47	58.17	59.91	61.71
Annual Capital Expenses	26,825	23,683		21,802,091	276,044	2,111,335	104,101	475,084	773,083
Interest Income	906,973	969,541	1,035,471	777,819	509,447	529,568	554,092	605,151	649,002
Ending Reserve Balance	31,719,036	33,886,550	36,180,328	16,452,112	18,020,452	17,813,670	19,679,897	21,268,687	22,647,089
Percentage of Full Funding	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<i>Yellow Highlighted Cells Represent Make-Up Funds</i>									
FULL FUNDING WITHIN 30 YEARS									
Beginning Reserve Balance	22,266,818	25,060,075	27,976,436	31,041,525	12,107,760	14,494,385	15,130,437	17,864,782	20,347,733
Full Funding Annual Maintenance Funding	1,186,074	1,221,657	1,258,306	1,296,056	1,334,937	1,374,985	1,416,235	1,458,722	1,502,484
Planned Special Assessments / Make up Funds	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596	934,596
Annual Total Property Contribution to The Reserve Fund	2,120,671	2,156,253	2,192,903	2,230,652	2,269,534	2,309,582	2,350,831	2,393,318	2,437,080
Average Monthly Contribution to the Reserve Fund per Unit	87.10	88.56	90.07	91.62	93.21	94.86	96.55	98.30	100.09
Annual Capital Expenses	26,825	23,683		21,802,091	276,044	2,111,335	104,101	475,084	773,083
Interest Income	699,412	783,791	872,187	637,674	393,135	437,805	487,614	564,717	635,392
Ending Reserve Balance	25,060,075	27,976,436	31,041,525	12,107,760	14,494,385	15,130,437	17,864,782	20,347,733	22,647,122
Percentage of Full Funding	79.0%	82.6%	85.8%	73.6%	80.4%	84.9%	90.8%	95.7%	100.0%
<i>Yellow Highlighted Cells Represent Make-Up Funds</i>									
BASELINE FUNDING									
Beginning Reserve Balance	11,840,069	14,194,742	16,684,045	19,334,691	237	2,001,127	2,267,654	4,650,006	6,799,879
Full Funding Annual Maintenance Funding	1,996,747	2,056,650	2,118,349	2,181,900	2,247,357	2,314,777	2,384,221	2,455,747	2,529,420
Planned Special Assessments / Make up Funds									
Annual Total Property Contribution to The Reserve Fund	1,996,747	2,056,650	2,118,349	2,181,900	2,247,357	2,314,777	2,384,221	2,455,747	2,529,420
Average Monthly Contribution to the Reserve Fund per Unit	82.01	84.47	87.00	89.61	92.30	95.07	97.92	100.86	103.89
Annual Capital Expenses	26,825	23,683		21,802,091	276,044	2,111,335	104,101	475,084	773,083
Interest Income	384,751	456,337	532,297	285,738	29,577	63,085	102,231	169,210	230,341
Ending Reserve Balance	14,194,742	16,684,045	19,334,691	237	2,001,127	2,267,654	4,650,006	6,799,879	8,786,557
Percentage of Full Funding	44.8%	49.2%	53.4%	0.0%	11.1%	12.7%	23.6%	32.0%	38.8%

Figure 4.5A-1 Comparison of Funding Plans – Reserve Fund Balances Through 2053

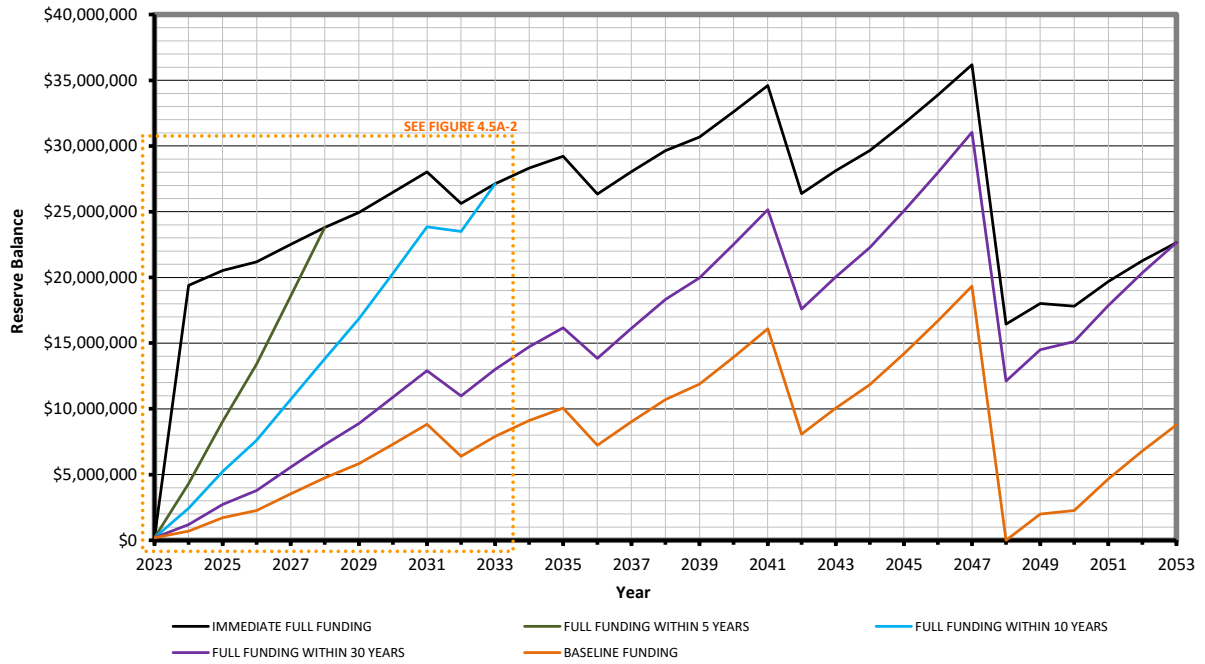


Figure 4.5A-2 Comparison of Funding Plans – Reserve Fund Balances Through 2033

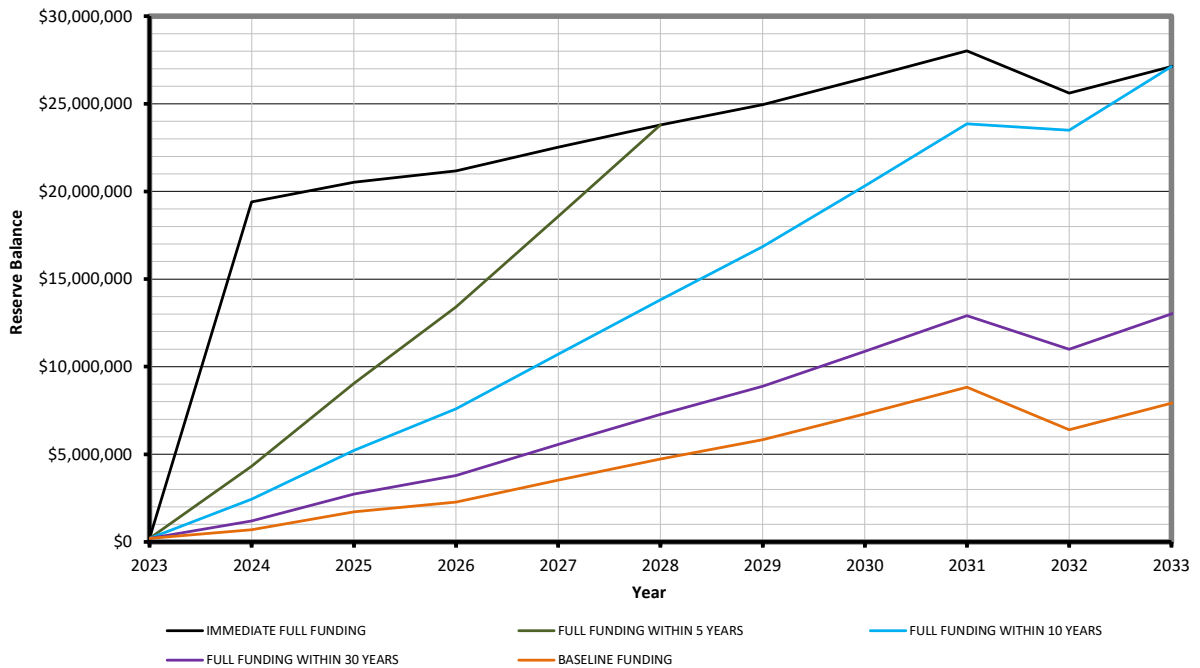


Figure 4.5B Comparison of Funding Plans -- Association Contributions to Reserve Fund by Year

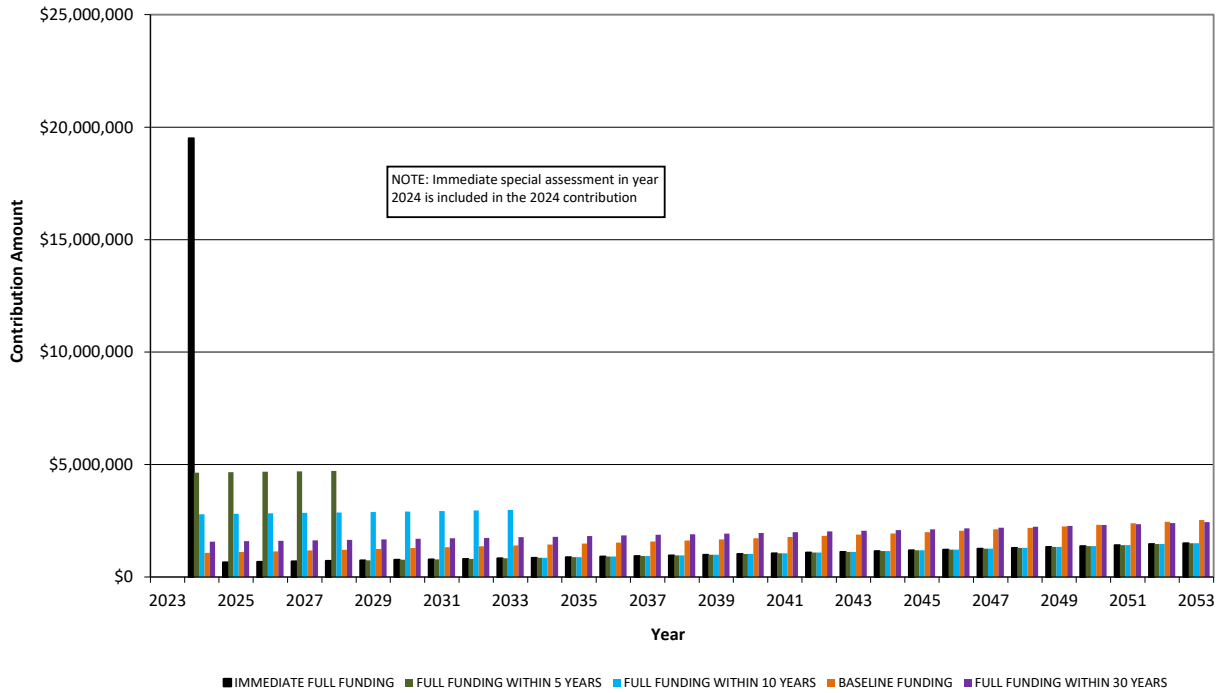
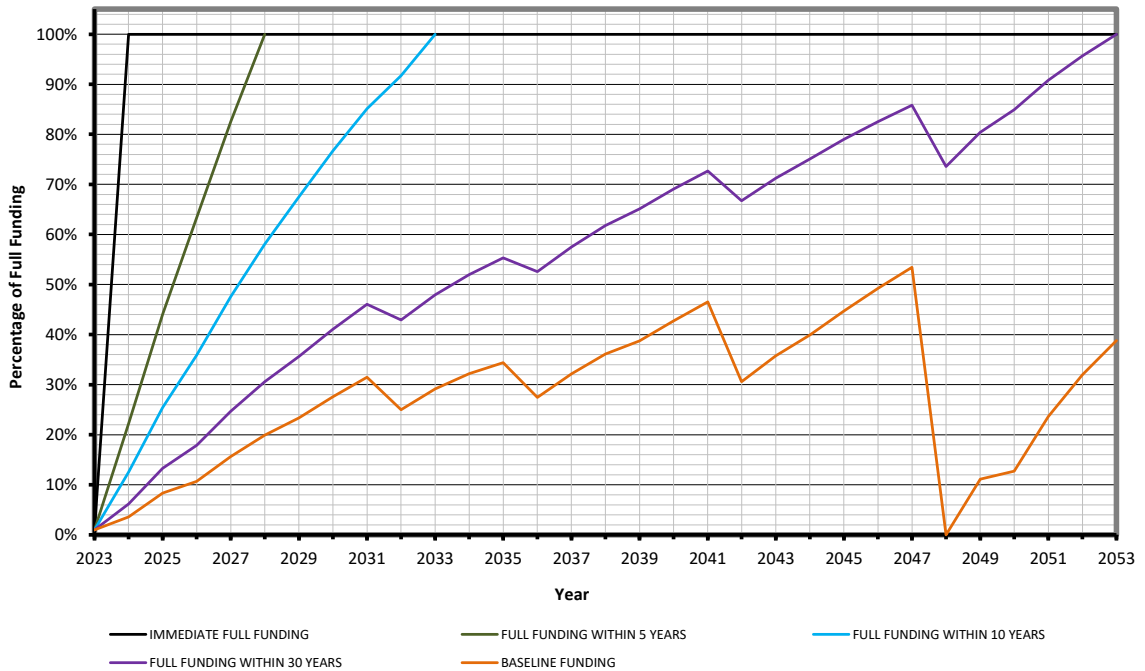


Figure 4.5C Comparison of Funding Plans – Percentage of Full Funding by Year



4.6 OTHER COMMON FUNDING METHODS

The following methods are methods that are sometimes implemented. We believe that many of these funding methods that keep the reserve fund at less than “Fully Funded” represent a weaker position for the Association. As the Fully Funded percentage decreases, the likelihood of unplanned special assessments increases.

Cash Flow Method

A method of calculating Reserve contributions where contributions to the Reserve fund are designed to offset the variable annual expenditures from the Reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of Reserve expenses until the desired Funding Goal is achieved.

Component Method

A method of calculating Reserve contributions where the total reserve contribution is based on the sum of contributions for individual components.

Baseline Funding

Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.

Full Funding

Setting a Reserve funding goal of attaining and maintaining the Reserve Fund at or near 100% funded. *Recommended by Samdal & Associates*

Statutory Funding

Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statutes.

Threshold Funding

Establishing a Reserve funding goal of keeping the Reserve Balance above a specified dollar or Percent Funded amount. Depending on the threshold this may be more or less conservative than “Fully Funded.”

5.0 LIMITATIONS

This report has been prepared for the exclusive use of Lake Cushman Maintenance Company and their property management company. We do not intend for any other party to rely on this report for any reason without our expressed written consent. If another individual or party relies on this study, they shall indemnify and hold Samdal & Associates harmless for any damages, losses, or expenses they may incur as a result of its use.

The Level 3 Reserve Study is a reflection of the information provided to us. This report has been prepared for Lake Cushman Maintenance Company's use, not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records. Our inspection report is not an exhaustive technical inspection of the property; we merely comment on the items that we believe that our clients would benefit from knowing. During a typical inspection, no invasive inspection is performed, no furnishings are moved, and no finishes are removed.

This report is a snap shot in time of the condition of the property at the time of inspection. The remaining life values that we list are based on our opinion of the remaining useful life and are by no means a guarantee. Our opinions are based on what we believe one could reasonably expect and are not based on worst case scenarios. These opinions are based upon our experience with other buildings of similar age and construction type. Opinions will vary and you may encounter contractors and/or consultants with differing opinions from ours. Ratings of various building components are most often determined by comparison to other buildings of similar age and construction type. The quality of materials originally impacts our judgment of their current state.

The life expectancy estimates that we prepare are based on National Association of Home Builders (NAHB) averages, Building Owners and Managers (BOMA) averages, product defined expected life averages, and our own assessment of typical life expectancy based on our experience with similar components in our area.

This report will tell you a great deal about the overall condition of this property. However, this report does not constitute a warranty, an insurance policy, or a guarantee of any kind. Owning any property involves some risk and while we can give an excellent overview of the property, we cannot inspect what we cannot see.

Our inspection and report do not include building code compliance or municipal regulatory compliance. Nor do they include mold investigations, hazardous materials investigations, or indoor air quality analysis.

The purpose of this report is not intended to be a statement of insurability of this property as insurance companies have particular standards for insurability of certain building types and certain building materials.

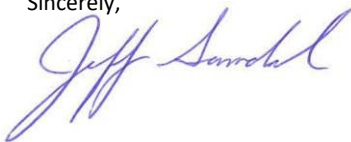
While we may comment that certain components have been recalled that we are aware of, we are not aware of all recalls. It is beyond the scope of this inspection to determine all systems or components that are currently or will be part of any recall in the future. You may wish to subscribe or contact the CPSC (Consumer Product Safety Commission) web site for recall information regarding any system or component. If a problem is encountered on your property, we cannot be responsible for any corrective action that you take, unless we have the opportunity to review the conditions, before repairs are made.

Please ensure that you have read and understand the entire proposal to perform this Level 3 Reserve Study that was signed prior to our inspection. If you have any questions regarding this document, please contact us.

We appreciate the opportunity to be of assistance and we hope that we have provided you a clear understanding of your financial situation and given you a better overall understanding of the property. This report supersedes any opinion or discussion that occurred during the inspection and should be considered our complete opinion of the condition of this property.

Please contact us if you have any questions regarding this report. We will be happy to be of assistance.

Sincerely,



Jeff Samdal, PE, RS, PRA

APPENDIX

Resume of Engineer Performing Study

Jeff Samdal, P.E., Principal

Professional Qualifications and Experience

Areas of Expertise

Mr. Samdal is the owner of Samdal & Associates, Inc., a corporation that specializes in building inspections, engineering, project management, and related services. He is a double-licensed Professional Engineer (Mechanical and Civil) in Washington State. He is also an accredited Building Inspection Engineer (BIE) and Reserve Specialist (RS), and Professional Reserve Analyst (PRA). He has performed thousands of building inspections as well as numerous additional services such as building envelope investigations, construction management, and general consulting for property owners pertaining to building maintenance and long-term budgeting. Mr. Samdal consistently earns repeat and referral business because of his attention to detail, practical approach, knowledge of the industry, and genuine appreciation for clients' concerns for their real estate investments.

Capabilities

Mr. Samdal is experienced at performing residential (single- and multi-family), commercial, and industrial inspections in Washington State and beyond. Mr. Samdal's experience includes the following:

- Property Condition Assessments (PCAs)
- Capital Needs Assessments (CNAs)
- Reserve Studies for Condominiums and Homeowner's Association
- Building Envelope Studies

Relevant Work History

Mr. Samdal has been owner and operator of Samdal & Associates since 2005, performing or managing all aspects of this business. Additionally, Mr. Samdal has been the co-owner and president of True North Construction Management since 2017, which is informative in obtaining current construction costs and keeping up to date with modern construction methods and construction products.

Prior to concentrating on building inspections, Mr. Samdal worked for Washington Group International's (WGI) Hydropower and Water Resources Group. While working for WGI, Mr. Samdal was involved in rebuilding and rehabilitating hydro facilities. He served as the on-site powerhouse and switchyard inspector during construction. His duties included design, drawing and specification preparation, cost estimating, scheduling, and construction management. Prior to working for WGI, Mr. Samdal worked for Duke Energy in a similar role.

Education

BS in Mechanical Engineering, University of Washington

Licenses and Certifications

- *Licensed Professional Engineer (PE)*, Mechanical Engineering, State of Washington, #40985
- *Licensed Professional Engineer (PE)*, Civil Engineering, State of Washington, #40985
- *Reserve Specialist (RS)*, Community Associations Institute (CAI), #173
- *Professional Reserve Analyst (PRA)*, Association of Professional Reserve Analysts
- *Building Inspection Engineer (BIE)*, National Association of Building Inspection Engineers
- *Structural Pest Inspector*, State of Washington, #70763

Professional Affiliation

American Society of Mechanical Engineers, 2002 – present

Community Involvement

Mr. Samdal lives in Woodinville with his wife and 2 children and has been involved with many of their activities as a Little League coach, a scout leader, a personal fitness coach, among other activities.