

# LUMMI ISLAND SCENIC ESTATES

LUMMI ISLAND, WASHINGTON

FULL RESERVE STUDY

MAY, 2013



PREPARED BY:

**BOB STEIMER, RESERVE SPECIALIST**  
M.S. CIVIL ENGINEERING, PROFESSIONAL ENGINEER

**KEVIN BROWN, RESERVE SPECIALIST**  
B.S. CONSTRUCTION MANAGEMENT

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## EXECUTIVE SUMMARY

### BACKGROUND:

Name:	Lummi Island Scenic Estates	Date:	MAY, 2013
Type of Study:	Level 1 – Full Reserve Study	No. of Units:	402

Lummi Island Scenic Estates is a 402-unit residential community located on Lummi Island, Washington. The community consists of 402 dues paying lots along with several common amenities.

### FINANCIAL INFORMATION:

Reserve Account Balance at Time of Study:	\$268,553
Annual Operating Budget:	\$263,525
Component Inclusion Threshold:	\$2,635
Annual Budgeted Contribution Rate (2013):	\$16,357
Remaining Contribution for the Year:	\$16,357
Planned or Implemented Special Assessment:	None
Fully Funded Balance:	\$335,443
<b>Percent Funded at Time of Study:</b>	<b>80%</b>
Funding Status at Time of Study:	Well Funded

### RECOMMENDATIONS:

<b>Recommended 2014 Contribution:</b>	\$45,800
Recommended Contribution per Month:	\$3,817
Average Contribution per Unit per Year:	\$114
Average Contribution per Unit Per Month:	\$9
Recommended Special Assessment:	None
Timeline for Fully Funded Status:	Consistently Approx. 70 – 50%
2014 Baseline Funding Plan Contribution Rate:	\$43,300
2014 Full Funding Plan Contribution Rate:	\$54,500

The recommended reserve contribution represents a Threshold Funding Plan to prevent special assessments over the course of the 30-year study **while maintaining a minimum reserve account balance of one year's annual contribution**. The fiscal year for the Reserve Study is a calendar year.

Cost projection accuracy decreases into the distant future. Assumptions should be reconsidered and updated with each revision of the study.

There is no legal requirement to fund reserves. There is a requirement to have a current Reserve Study to know the recommended reserve contribution rate. Reserve Studies must be updated annually to reflect recent financial information, repairs or replacements, and to adjust for future repair costs. Every three years, the update must be based on a visual on-site inspection conducted by a Reserve Study Professional.

### **ESTIMATED REPAIR SUMMARY**

The following repairs are expected to occur in the next few years at Lummi Island Scenic Estates.

#### **EXPENSES RECOMMENDED THROUGH 2015:**

<b>COMPONENT – REPAIR TO BE MADE:</b>	<b>YEAR:</b>	<b>ESTIMATED COST:</b>
15.2.1 - Water Towers, Repair	0 (2013)	\$10,000
15.2.1 - Water Towers, Circulation System	1 (2014)	\$16,000
2.6.1 - Asphalt Pavement	2 (2015)	\$20,000

The following repairs make up the bulk of the Associations' reserve funding requirements. Changing the timing or costs of these items may result in changes to the recommended contribution.

#### **MAJOR EXPENSES OVER THE NEXT 30 YEARS:**

<b>COMPONENT – REPAIR TO BE MADE:</b>	<b>NEXT IN YEAR:</b>	<b>ESTIMATED COST:</b>
15.1.2 - Valves	15 (2028)	\$105,000
2.9.1 - Dock Pilings	20 (2033)	\$100,000
15.2.2 - Reservoir & Dam	15 (2028)	\$100,000
20.1.1 - Professional Services	15 (2028)	\$100,000
15.4.1 - Treatment Plant	15 (2028)	\$77,000
15.5.1 - Water Mains	10 (2023)	\$75,000



# LUMMI ISLAND - 2014 PROPOSED BUDGET SUPPLEMENTAL BUDGET INFORMATION ON RESERVES

In Compliance with RCW 64.34.308 and RCW 64.38.025

31-May-13

## In compliance with Sec. 4 (a)

Current Budgeted Contribution to Reserves:	\$16,357
Recommended Contribution to Reserves From Study:	\$45,800
Funding Plan Used for Recommendation:	Threshold
<b>Proposed Budget's Contribution to Reserves:</b>	

## In compliance with Sec. 4 (b)

Is Additional Funding (Regular or Special Assessment) Planned?	Yes/No
When is it due?	
What is its purpose?	
Amount per unit per year (on average)?	
Amount per unit per month (on average)?	

## In compliance with Sec. 4 (c)

Based upon the most recent reserve study, will the Association have funds to meet obligations for the next 30 years at the current contribution rate?

No

## In compliance with Sec. 4 (d)

If funds are insufficient, see attached spreadsheet for what additional payments may be due and when. (Current Budget Projections per RCW 64.34.308 Section 4(d) or RCW 64.38.025 Sec. 4(d)) Refer to "Required Special Assessment" line.

## In compliance with Sec. 4 (e)

Projected 2013 Year End Reserve Balance  
**Percent Funded** as of the study date

Per Study:	Per Budget:
\$274,910	
80%	

## In compliance with Sec. 4 (f)

### 5 Year Projections Using Recommended Reserve Fund Contribution & Current 2013 Reserve Fund Contribution

**Estimates Per Study**  
Year End **Balance** at **Recommended Contribution**  
Projected **Percent Fully Funded** at **Recommended Contribution**  
Year End **Balance** at **Current Contribution**  
Projected Year End **Fully Funded Balance**  
Projected **Percent Fully Funded** at **Current Contribution**

2014	2015	2016	2017	2018

Constant Contributions & Inflated Expenses

## In compliance with Sec. 4 (g)

### 5 Year Projections Using Proposed 2014 Reserve Fund Contribution

#### Per Proposed Budget's Contribution

Projected Year End **Balance** w/**Proposed Budget**  
Projected Year End **Fully Funded Balance**  
Projected. **Percent Fully Funded** w/**Proposed Budget**

2014	2015	2016	2017	2018

Constant Contributions & Inflated Expenses



# LUMMI ISLAND

## 30-Year Projection Using

### Current 2013 Reserve Fund Contributions (Constant) and Projected Expenses (Adjusted for Inflation)

per RCW 64.34.308 Section 4(d) or RCW 64.38.025 Section 4 (d)

Reserve Consultants Ltd.

Date: 31-May-13

Year of Study: Fiscal Year:	0 2013	1 2014	2 2015	3 2016	4 2017	5 2018	6 2019	7 2020	8 2021	9 2022	10 2023
CARRY OVER RESERVES		\$274,910	\$277,535	\$283,152	\$311,490	\$340,961	\$214,062	\$205,457	\$230,687	\$256,925	\$284,214
ANNUAL RESERVE CONTRIBUTION		\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357
RESERVE EXPENDITURES		\$16,480	\$21,630	\$0	\$0	\$151,489	\$32,864	\$0	\$0	\$0	\$224,149
SPECIAL ASSESSMENT		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACCUMULATED RESERVES		\$274,787	\$272,262	\$299,509	\$327,847	\$205,829	\$197,555	\$221,814	\$247,044	\$273,282	\$76,422
INTEREST EARNED		\$2,748	\$10,890	\$11,980	\$13,114	\$8,233	\$7,902	\$8,873	\$9,882	\$10,931	\$3,057
YEAR-END BALANCE	\$274,910	\$277,535	\$283,152	\$311,490	\$340,961	\$214,062	\$205,457	\$230,687	\$256,925	\$284,214	\$79,479
Short of Funds in Year:											
Required Special Assessment:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Shortfall Amount Per Unit Per Year:											
Shortfall Amount Per Unit Per Month:											
Years	0-1	2-10	11-30								
Inflation Multiplier	1.03	1.05	1.05								
Interest Rate Multiplier	0.01	0.04	0.04								
	1	1.03	1.08	1.14	1.19	1.25	1.31	1.38	1.45	1.52	1.60
	0.01	0.01	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Year of Study: Fiscal Year:	11 2024	12 2025	13 2026	14 2027	15 2028	16 2029	17 2030	18 2031	19 2032	20 2033
CARRY OVER RESERVES	\$79,479	\$99,669	\$84,025	\$104,397	\$125,584	\$0	\$0	\$0	\$17,011	\$34,703
ANNUAL RESERVE CONTRIBUTION	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357
RESERVE EXPENDITURES	\$0	\$35,233	\$0	\$0	\$925,856	\$53,532	\$112,418	\$0	\$0	\$473,723
ACCUMULATED RESERVES	\$95,836	\$80,793	\$100,382	\$120,754	(\$783,914)	(\$37,175)	(\$96,061)	\$16,357	\$33,368	(\$422,663)
INTEREST EARNED	\$3,833	\$3,232	\$4,015	\$4,830	\$0	\$0	\$0	\$654	\$1,335	\$0
YEAR-END BALANCE	\$99,669	\$84,025	\$104,397	\$125,584	(\$783,914)	(\$37,175)	(\$96,061)	\$17,011	\$34,703	(\$422,663)
Short of Funds in Year:					2028	2029	2030			2033
Required Special Assessment:	\$0	\$0	\$0	\$0	-\$783,914.30	-\$37,175.40	-\$96,061.04	\$0	\$0	-\$422,662.89
Shortfall Amount Per Unit Per Year:					\$1,950	\$92	\$239			\$1,051
Shortfall Amount Per Unit Per Month:					\$163	\$8	\$20			\$88
Years	0-1	2-10	11-30							
Inflation Multiplier	1.03	1.05	1.05							
Interest Rate Multiplier	0.01	0.04	0.04							
		1.68	1.76	1.85	1.94	2.04	2.14	2.25	2.36	2.48
		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Year of Study: Fiscal Year:	21 2034	22 2035	23 2036	24 2037	25 2038	26 2039	27 2040	28 2041	29 2042	30 2043
CARRY OVER RESERVES	\$0	\$17,011	\$0	\$17,011	\$34,703	\$0	\$0	\$17,011	\$34,703	\$53,102
ANNUAL RESERVE CONTRIBUTION	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357	\$16,357
RESERVE EXPENDITURES	\$0	\$57,391	\$0	\$0	\$182,702	\$87,199	\$0	\$0	\$0	\$1,145,884
ACCUMULATED RESERVES	\$16,357	(\$24,023)	\$16,357	\$33,368	(\$131,642)	(\$70,842)	\$16,357	\$33,368	\$51,060	(\$1,076,425)
INTEREST EARNED	\$654	\$0	\$654	\$1,335	\$0	\$0	\$654	\$1,335	\$2,042	\$0
YEAR-END BALANCE	\$17,011	(\$24,023)	\$17,011	\$34,703	(\$131,642)	(\$70,842)	\$17,011	\$34,703	\$53,102	(\$1,076,425)
Short of Funds in Year:		2035			2038	2039				2043
Required Special Assessment:	\$0	-\$24,022.55	\$0	\$0	-\$131,641.90	-\$70,841.64	\$0	\$0	\$0	#####
Shortfall Amount Per Unit Per Year:		\$60			\$327	\$176				\$2,678
Shortfall Amount Per Unit Per Month:		\$5			\$27	\$15				\$223
Years	0-1	2-10	11-30							
Inflation Multiplier	1.03	1.05	1.05							
Interest Rate Multiplier	0.01	0.04	0.04							
		2.73	2.87	3.01	3.16	3.32	3.49	3.66	3.85	4.04
		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

#### NOTES:

1. Year Zero carry over balance is the current actual reserve balance as reported to Reserve Consultants Ltd.
2. Year Zero reserve contribution is that estimated for the remainder of the year, following preparation of this report.

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## **INTRODUCTION**

### **PURPOSE OF A RESERVE STUDY:**

The purpose of a Reserve Study is to recommend a reasonable annual reserve Contribution Rate made by an association to its reserve account. Reserve accounts are established to fund major maintenance, repair, and replacement of common elements, including limited common elements, expected to be necessary within the next thirty years. A Reserve Study is intended to project adequate funds for the replacement or major repair of any significant component of the property as it becomes necessary without relying on special assessments. It is a budget planning tool which identifies the current status of the reserve account and a stable and equitable Funding Plan to offset the anticipated future major shared expenditures.

Each reserve component is evaluated to determine the current condition, the remaining useful life, and the estimated replacement cost. This information is combined into a spreadsheet to determine funding requirements and establish the annual contribution rate needed to minimize special assessments. All costs and annual reserve balances are shown in constant dollars, and with adjustments for annual inflation and interest earned. Ideally, an even level of contributions is established that maintains a positive balance in the reserve account over the timeline the study examines.

A Reserve Study also calculates a “Fully Funded Balance”. Fully Funded Balance is the sum total of the reserve components’ depreciated value using a straight line depreciation method. To calculate each component’s depreciated value:

$$\text{Depreciated Value} = \text{Current Replacement Cost} \times \frac{\text{Effective Age}}{\text{Expected Useful Life}}$$

When assessed with the current reserve balance, the Fully Funded Balance yields a Percent Fully Funded. This acts as a measuring tool to assess an association’s ability to absorb unplanned expenses. These expenses could be emergency repairs not covered by insurance, or expenses that differ from the existing Reserve Study in terms of timing or cost.

The Fully Funded Balance is neither the present replacement cost of all of the Association’s reserve components, nor does it have a mathematical relationship to the recommended reserve contribution funding plans. For a detailed explanation, with examples, see “Fully Funded Balance Relationship to the Contribution Rate” appendix.

There are three levels of Reserve Studies:

- The first level, an initial Reserve Study, must be based upon a visual site inspection conducted by a Reserve Study Professional. This is also known as a full **Level 1** Reserve Study.



- At least every three years, an updated Reserve Study must be prepared and based upon a visual site inspection conducted by a Reserve Study Professional. This is also known as a **Level 2** Update with Site Visit.
- Every year, the Association must update the Reserve Study. Except as noted above, the annual updates do not require a site visit. This is also known as a **Level 3** Update without Site Visit.

This study is a **Level 1** – Full Reserve Study.

**GOVERNMENT REQUIREMENTS FOR A RESERVE STUDY:**

The content of a Reserve Study for a homeowners association is regulated by the Washington State government (RCW 64.38.070 §2). The required content is:

- (a) A reserve component list, including any reserve component that would cost more than one percent of the annual budget of the association, not including the reserve account, for major maintenance, repair, or replacement. If one of these reserve components is not included in the Reserve Study, the study should provide commentary explaining the basis for its exclusion. The study must also include quantities and estimates for useful life of each reserve component, remaining useful life of each reserve component, and current repair and replacement cost for each component;
- (b) The date of the study, and a statement that 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 that 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 baseline funding plan;
- (i) A recommended reserve account contribution rate; a 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 baseline funding plan to maintain the reserve balance above zero throughout the thirty-year study period without special assessments, and a contribution rate recommended by the reserve study professional;
- (j) A projected reserve account balance for thirty years and a funding plan to pay for projected costs from those reserves without reliance on future unplanned special assessments; and

- (k) A statement on whether the reserve study was prepared with the assistance of a reserve study professional.

**The Washington State government further requires the following disclosure in every Reserve Study (RCW 64.38.070 §3):**

**"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 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."**

The full Washington Homeowners' Association Act may be reviewed on the Washington State Legislature's website at <http://apps.leg.wa.gov/rcw/default.aspx?cite=64.38> and parts 64.38.065 to 64.38.090 for the Reserve Study Amendment's portions. In April 2011, the Act was amended to change the required content within the Reserve Studies, add reporting of the Reserve Study results as part of the budget summary to owners, and extend the Reserve Study requirement to homeowners' associations with significant assets. For questions regarding the Act, we recommend contacting an attorney familiar with homeowners' associations' legal requirements.

#### **LIMITATIONS AND ASSUMPTIONS OF A RESERVE STUDY:**

This Reserve Study is not a report on the condition of the buildings maintained by the Association, or a detailed report of repairs necessary to the building. It is also not an investigation into or comment on the quality of construction of the reserve components, or whether the construction complies with the building code or the requirements of the Washington Homeowners' Association Act.

The observations made by Reserve Consultants Ltd. are limited to a visual inspection of a sample of the reserve components. Unless informed otherwise, our assumption is that the components are constructed in substantial compliance with the building code and to industry standards, and that it will receive ordinary and reasonable maintenance and repair by the Association. These assumptions include that most reserve components will achieve their normal useful lives for similar components in the Pacific Northwest, and that they will be replaced when necessary to prevent damage to other reserve components.

This Reserve Study assumes that the Association will be maintained to keep a good level of appearance, with a special emphasis on retaining the original appearance of the



Association to the greatest possible extent. The analysis also assumes that the Association will replace materials as they are required with good quality materials, installed by qualified, licensed, contractors. We further assume that the Association will experience the full typical useful life for the new materials installed.

The long term nature of this study requires that certain assumptions and predictions be made about future events. Since there can be no guarantee that these future events will occur as assumed, this analysis must be viewed in light of the circumstances under which it was conducted. Reasonable effort has been made to ensure that the conclusions of this report are based on reliable information and sound reasoning.

This report should be updated annually with actual repair costs, reserve balances, etc. Every three years it should be updated with a site inspection and professional review. Regular updating will allow changes based on actual occurrences and adjustments for the cost of repairs to be incorporated into the annual reserve contributions. This will allow any savings or additional costs to be properly allocated among unit owners.

#### **OUR APPROACH TO A RESERVE STUDY:**

Reserve Consultants Ltd. employs a "Reasonable Approach" when evaluating reserve components in order to draft a study that is of greatest value to our clients. This means we attempt to predict, based on the costs involved and the client's objectives, what a reasonable person will decide to have done when maintenance, repairs, or replacement become necessary. For example, a reasonable person will not replace a fence when it only needs to be repainted. The benefit of this is that reserve contributions are minimized to allow for what it most likely to occur. Our studies are not based on a worst case scenario, but rather on what we expect is most likely to occur. Our approach assumes minor problems will be corrected as they occur, before they become major problems.

Many sources were used in drafting this report. These include:

- Site visits and inspection of facilities;
- Conference with association representatives;
- Review of architectural plans of the buildings, if made available;
- Review of the declaration for the Association, or a list of components the Association is responsible for;
- Generally accepted construction, maintenance, and repair guidelines.

The costs estimated for this Reserve Study are based on several sources:

- Costs experienced by Lummi Island Scenic Estates;
- Costs experienced by other associations in the area;
- RS Means Building Construction Cost Data 2013.

Several factors may influence the actual costs that the Association will experience. The quality of replacement materials of items can significantly impact cost, as well as the timing between replacements. The use of Architects or independent construction managers to specify and oversee work may also cause additional expenses.

When making estimates on the future inflation and interest rates, we use a staggered approach given the current economic environment. For 2013 and 2014, we use an inflation rate of 3%, and an interest rate of 2%. For the remaining years of the study, we use a 5% inflation rate and a 4% interest rate.

#### **RESERVE STUDY BENEFITS TO UNIT OWNERS:**

The benefits of a consistent annual reserve contribution as determined by a Reserve Study are many:

- **Provides disclosure to buyers and owners.** No matter how the Association chooses to fund its reserves, the Reserve Study will provide owners and prospective purchasers with information about future expenses for repair and replacement of the common elements so that they can make an informed decision about buying and owning a unit. It will help eliminate the surprise of large unexpected repairs costs, which may be passed on to owners.
- **Is fair.** Each owner contributes only for the useful life consumed during their term of ownership. When used from the start of an association, current owners are not assessed for what previous owners did not pay.
- **Protects the owner's investment.** By ensuring that funds always exist to keep a community maintained and functional, each owner's investment in their unit is protected.
- **Increases salability & lending attractiveness.** Savvy purchasers and lenders are closely examining association finances before making commitments. A good Reserve Study and adequate reserves illustrate an association's financial health and endurance. Lenders often require that associations have adequate reserve contributions, or they will not offer loans for units within the association.
- **Reduces special assessments.** By utilizing a reserve study to aid in medium and long range planning, the need for special assessments is greatly reduced. This assists personal financial planning and reduces uncertainty and fear of ownership.
- **Complies with the Washington Homeowners' Association Act.** The Washington Homeowners' Association Act requires that all homeowners' associations have a reserve study prepared by an independent professional qualified in drafting a reserve study. Reserve Consultants Ltd. has been performing reserve studies in the Greater Puget Sound area since 1992, and employs qualified independent Reserve Study Professionals.

## **ASSOCIATION OVERVIEW**

Lummi Island Scenic Estates is a 402-unit residential community located on Lummi Island, Washington. The community consists of 402 dues paying lots along with several community buildings, a small community marina and a shared water supply system. See the individual component worksheets located at the end of this study for a description of the Association's common elements.

Lot owners are responsible for all improvements to their parcels.

The costs for these items (parcel improvements) are not included in the reserve account contribution recommendations. Individual owners should remember that they have the responsibility to pay for repairs to these elements and added items. The Association should establish policies and processes regarding the maintenance on these "owner responsibility" items.

### **REVIEW OF GENERAL CONDITIONS**

The overall appearance of the Association's common buildings is good. Please refer to the individual component worksheets located at the back of this report for a description of the Association's common elements.

#### **MAJOR EXPENSES OVER THE NEXT 30 YEARS:**

<b>COMPONENT – REPAIR TO BE MADE:</b>	<b>NEXT IN YEAR:</b>	<b>ESTIMATED COST:</b>
15.1.2 - Valves	15 (2028)	\$105,000
2.9.1 - Dock Pilings	20 (2033)	\$100,000
15.2.2 - Reservoir & Dam	15 (2028)	\$100,000
20.1.1 - Professional Services	15 (2028)	\$100,000
15.4.1 - Treatment Plant	15 (2028)	\$77,000
15.5.1 - Water Mains	10 (2023)	\$75,000



## **FINANCIAL ANALYSIS & RESERVE CONTRIBUTION RECOMMENDATIONS**

For budgeting purposes, we recommend that Lummi Island Scenic Estates set the contribution rate at \$45,800 for reserves beginning in 2014. This amount should increase annually with inflation. This amount is determined using the Cash Flow method with a Threshold Funding plan, to provide adequate reserves each time an expense is anticipated, with a minimum level of reserves (the threshold) equal to one year's reserve contribution at all times during the study period, so that no special assessments will be required. These figures are based on a reserve balance on December 31, 2012 of \$268,553, plus a planned remaining 2013 reserve contribution of \$16,357. Figures were provided by an association representative. Lummi Island Scenic Estates should determine the best reserve funding level for their association based on their maintenance needs and risk aversion.

<b>Recommended 2014 Contribution:</b>	<b>\$45,800</b>
Recommended Contribution per Month:	\$3,817
Average Contribution per Unit per Year:	\$114
Average Contribution per Unit Per Month:	\$9
Average Contribution per Unit per Year as a Percentage of Average Unit Value:	0.08%

The contribution as a percentage of average unit value is calculated to provide a way for owners, and prospective owners, to compare the reserve requirements of one association with that of another association or of single-family home ownership. Typically, condominium associations in the Puget Sound area need to set aside from ½% to 1% of their average unit value, homeowners' associations need to put aside 1/3% to ½% and single family homeowners put aside 1% to 2% each year.

**See the Tables & Graphs section for additional information on contribution rates, expected expenses, and projected inflated values.**

### **FUNDING PLANS**

As noted above, an annual contribution of \$45,800 is a Threshold Funding plan to provide funding as expenses are incurred over time, while maintaining a minimum reserve balance of one year's contribution. Absent specific instructions from clients, or unusual circumstances, this is our recommended funding plan.

An alternative strategy Lummi Island Scenic Estates could employ is Baseline Funding. This provides for necessary expenditures without maintaining a minimum reserve balance. To pursue such a strategy, the recommended Baseline Funding contribution rate would be \$43,300.

Lummi Island Scenic Estates could also consider contributions to obtain and maintain the level of reserves to be Fully Funded, so that the Percent Fully Funded is 100% by Year 30. The recommended Full Funding contribution rate would be \$54,500.

We recommend that Lummi Island Scenic Estates adopt a policy regarding their reserve funding which would address the level of funding that the Association would strive to maintain, as well as methods of investing reserve funds to best match risk with return and investment length with expected expenses.

### **FULLY FUNDED BALANCE CALCULATIONS**

The Fully Funded Balance for Lummi Island Scenic Estates is \$335,443. The actual current funding is \$268,553. The Association is approximately 80% funded. This means that based on a straight line savings for each reserve component, the Association saved 80% of the accumulated depreciation of the reserve components.

Generally, associations that are:

- 60% or more Funded are considered reasonably well funded;
- 25% to 60% are considered adequately funded;
- 25% or less Funded are considered at high risk for special assessment.

At 80%, Lummi Island Scenic Estates is considered well funded.

See the Fully Funded Balance Calculation table for more detail, and the graph for a visual representation of the current level of funding.

## **DISCLOSURES**

1 – RESERVE CONSULTANTS LTD. ALSO PROVIDES CONSTRUCTION INSPECTION SERVICES FOR CONDOMINIUMS, AND DOES DESIGN AND CONSTRUCTION OVERSIGHT FOR MAJOR REPAIR PROJECTS, INCLUDING ROOFING, DECKS AND BUILDING ENVELOPE REPLACEMENT.

2 – KEN HARER, A PRINCIPAL OF RESERVE CONSULTANTS LTD. IS ALSO THE MANAGING PARTNER OF CONDOMINIUM LAW GROUP, PLLC, A LAW FIRM THAT PROVIDES LEGAL SERVICES TO CONDOMINIUMS AND OTHER COMMUNITY ASSOCIATIONS.

3 – NO SHAREHOLDER OR EMPLOYEE OF RESERVE CONSULTANTS LTD. HAS ANY INTEREST IN, OR OBLIGATION TO, ANY CONSTRUCTION COMPANY, MANAGEMENT COMPANY, OR DEVELOPMENT ENTITY THAT CREATES CONDOMINIUMS.

4 – RESERVE CONSULTANTS LTD. HAS BEEN A MEMBER OF COMMUNITY ASSOCIATION INSTITUTE SINCE ABOUT 1993, AND HAS PERFORMED WORK FOR MANY ASSOCIATION MANAGERS.

5 – THIS REPORT AND ANALYSIS IS BASED UPON OBSERVATIONS OF THE VISIBLE AND APPARENT CONDITION OF THE BUILDING AND ITS MAJOR COMPONENTS ON THE DATE OF THE INSPECTION. ALTHOUGH CARE HAS BEEN TAKEN IN THE PERFORMANCE OF THIS INSPECTION, RESERVE CONSULTANTS LTD. (AND/OR ITS REPRESENTATIVES) MAKE NO REPRESENTATIONS REGARDING LATENT OR CONCEALED DEFECTS WHICH MAY EXIST AND NO WARRANTY OR GUARANTEE IS EXPRESSED OR IMPLIED. THIS REPORT IS MADE ONLY IN THE BEST EXERCISE OF OUR ABILITY AND JUDGMENT. CONCLUSIONS IN THIS REPORT ARE BASED ON ESTIMATES OF THE AGE AND NORMAL WORKING LIFE OF VARIOUS ITEMS OF EQUIPMENT AND APPLIANCES. PREDICTIONS OF LIFE EXPECTANCY AND THE BALANCE OF USEFUL LIFE ARE NECESSARILY BASED ON INDUSTRY AND/OR STATISTICAL COMPARISONS. IT IS ESSENTIAL TO UNDERSTAND THAT ACTUAL CONDITIONS CAN ALTER THE USEFUL LIFE OF ANY ITEM. THE PREVIOUS USE OR MISUSE, IRREGULARITY OF SERVICING, FAULTY MANUFACTURE, UNFAVORABLE CONDITIONS, ACTS OF GOD, AND UNFORESEEN CIRCUMSTANCES MAKE IT IMPOSSIBLE TO STATE PRECISELY WHEN EACH ITEM WOULD REQUIRE REPLACEMENT. THE CLIENT HEREIN SHOULD BE AWARE THAT CERTAIN COMPONENTS WITHIN THE ABOVE REFERENCED PROPERTY MAY FUNCTION CONSISTENT WITH THEIR PURPOSE AT THE TIME OF INSPECTION, BUT DUE TO THEIR NATURE, ARE SUBJECT TO DETERIORATION WITHOUT NOTICE.

6 – UNLESS OTHERWISE NOTED, ALL RESERVE COMPONENTS ARE ASSUMED TO MEET THE BUILDING CODE REQUIREMENTS IN FORCE AT THE TIME OF CONSTRUCTION. INFORMATION PROVIDED BY THE CLIENT IS ASSUMED TO BE ACCURATE AND RELIABLE.

7 – CONCLUSIONS REACHED IN THIS REPORT ASSUME RESPONSIBLE OWNERSHIP AND COMPETENT MANAGEMENT OF THE PROPERTY. INFORMATION PROVIDED BY OTHERS IS BELIEVED TO BE RELIABLE, BUT WE ASSUME NO RESPONSIBILITY FOR ACCURACY THEREOF.



**APPENDICES:**

## **EVALUATORS' CREDENTIALS**

**BOB STEIMER**      PRINCIPAL, RESERVE CONSULTANTS LTD.  
M.S. CIVIL ENGINEERING  
REGISTERED PROFESSIONAL ENGINEER, WASHINGTON

Bob Steimer has over thirty-five years' experience in design, construction, contract management, and facilities maintenance. He has a broad base of experience both geographically and materially. With over six years' experience specifically as head of maintenance at two large naval facilities (Norfolk and Alameda), Bob is an expert in the development of maintenance plans and the physical effects of their implementation. His experience in the roofing business includes design, construction, and inspection as well as the management of large and small roofing systems. Bob is a Registered Professional Engineer in the State of Washington and a qualified underwater construction technician (diver). Bob has been the principal inspector and cost estimator for over five hundred reserve studies as well as numerous roof and building inspections since joining Reserve Consultants in 1992. He now also heads the roofing inspection and consulting business conducted by Reserve Consultants. As a Professional Engineer, Bob concentrates his work on inspection of buildings, remedial construction specifications, and reserve consultation. He is a current member of the Roof Consultants Institute (RCI). In 2008, the Community Association Institute recognized Bob's work on reserve studies with the "Reserve Specialist" designation.

**KEVIN BROWN**      ASSOCIATE, RESERVE CONSULTANTS LTD.  
B.S. CONSTRUCTION MANAGEMENT, UNIVERSITY OF WASHINGTON

Kevin Brown graduated from the School of Architecture at the University of Washington with a degree in Construction Management. After graduation Kevin spent several years working as a Project Manager in Phoenix, AZ and the Puget Sound area. He has estimated and managed work on jobs ranging from a \$75,000,000 airport remodel at SeaTac International Airport to several \$200,000+/- retail projects and a variety of project types, sizes, and scopes in between. Since joining Reserve Consultants Ltd. in 2008, Kevin has completed over 250 Reserve Studies. In 2011, he became a recognized "Reserve Specialist" by the Community Association Institute.



### **FULLY FUNDED BALANCE RELATIONSHIP TO THE CONTRIBUTION RATE**

The contribution rate is the steady level of annual reserve contributions to keep the reserve account balance above zero and pay for all anticipated repairs as they occur for 30 years into the future. It is the amount sufficient to pay for repairs as they occur, and does not have any mathematical connection to the Fully Funded Balance or the Percent Fully Funded.

The Fully Funded Balance relates to how much the building has deteriorated compared to the cost of making it like new again. For example, if a roof will last 10 years and cost \$100,000 to replace, then when it is 2 years old it is 20% used up, and the Fully Funded Balance for its future replacement will be \$20,000. When it is 8 years old, it will be 80% deteriorated, and its fully funded balance would be \$80,000.

However, if no savings were kept since the roof was installed for its replacement, and it is already 5 years old, then it would need a contribution rate of \$20,000 for the next 5 years to pay for the roof when it reaches 10 years old. At Year 6, 20% of the repair cost would be saved, but the Fully Funded Balance would be \$60,000, and it would only be 33% fully funded. Year 7 would have \$40,000, and move to 57% funded (since the Fully Funded Balance went to \$70,000). The roof would only be fully funded the year of the last contribution and pay for the new roof.





### **SAMPLE FULLY FUNDED BALANCE CALCULATIONS AND CONTRIBUTION RATE**

Here is a sample of how the Fully Funded Balance is calculated for a simple association with 6 reserve components. For ease of calculation, one component reaches the end of its useful life each year, each has a useful life of 6 years, and each costs \$100,000 to replace.

#### **Fully Funded Balance Calculations**

#### **SAMPLE ASSOCIATION**

COMPONENT DESCRIPTION	USEFUL LIFE	EFFECT. AGE	REMAIN USEFUL LIFE	CURRENT REPLACE COST	FULLY FUNDED BALANCE
Plumbing	6	6	0	\$ 100,000	\$ 100,000
Parking lot	6	5	1	\$ 100,000	\$ 83,333
Roof	6	4	2	\$ 100,000	\$ 66,667
Paint	6	3	3	\$ 100,000	\$ 50,000
Decks	6	2	4	\$ 100,000	\$ 33,333
Siding	6	1	5	\$ 100,000	\$ 16,667
<b>TOTAL FULLY FUNDED BALANCE</b>					<b>\$ 350,000</b>

**IF ACTUAL RESERVE BALANCE = \$ 50,000**

**THEN PERCENT FULLY FUNDED = 14%**

Every year, this association needs \$100,000 as a reserve Contribution Rate to fund its repairs to avoid special assessments. **This is true regardless of how much money it has in reserves to start.** If the association starts with a reserve of \$50,000, it is 14% funded. If it starts with a reserve balance of \$300,000, it is 86% funded. Either way, the contribution rate should be \$100,000, because that is the average repair expense each year. The only exception to this is the odd case of an overfunded association (more than 100%) where the contribution rate may be less for a few years until savings reaches a risk level that the association finds acceptable.

#### **Why is the Percent Fully Funded Important?**

If the association experiences those unplanned expenses, a high reserve balance will cover unexpected expenses. **An association with a well-funded reserve account has less risk of special assessments to pay for unexpected expenses.** A poorly



funded association would have a higher risk of a special assessment. With an unexpected \$100,000 expense, the 14% funded association shown above runs out of money and needs a special assessment to cover the cost. The 86% funded association drops to 57% funded, but does not require a special assessment. The Contribution Rate remains unchanged for both.

An association that is Fully Funded may have large cash reserves, and will still be making the same contributions unless it allows itself to become less Fully Funded. Since the association has to contribute \$100,000 every year whether it is 14% funded or 100% funded, it can choose whether or not it wants to keep that extra \$300,000 in the association's reserve account, or in the hands of its members.

We typically recommend that the association select a minimum reserve account balance, or Threshold it wants to maintain, and select a contribution rate to maintain that minimum rather than try to build their account to 100% fully funded. We further recommend associations consider a threshold balance equal to one year's reserve contribution. However, each association must judge their unique risk tolerance. Sometimes, the contribution rate necessary to cover repairs in the near term will build to Fully Funded in the later portions of the 30 year time frame.

Other observations based on our simple 6 component association: If the association starts at 14%, to build the fund to a Fully Funded condition in 30 years requires they increase their annual contribution to \$110,000. If they want to build to a fully funded condition in 13 years, they need to contribute \$125,000 a year. That extra \$25,000 a year is not necessary to pay for any repairs over the period of the study.



## **GENERAL INFORMATION**



*Reserve  
Consultants*  
Ltd.

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[www.reserveconsultants.net](http://www.reserveconsultants.net) PO Box 2068, Kirkland, WA. 98083-2068 206.523.3248 FAX 206.633.1521

## **ASPHALT**

**What is asphalt?** Asphalt is the black substance that covers most roadways and parking lots. It is a mixture of sand, gravel, and a petroleum based binder. The binder is usually thicker than oil but slightly thinner than tar. The mixture can be mixed either hot or cold, but "hot mix" has much better strength. "Cold mix" is usually only used for temporary patches.

**Is it better than concrete?** Asphalt has some properties that make it better than concrete and some that make it worse. Asphalt is not as strong or as rigid as concrete. It will therefore not support heavy loads over long periods as well as concrete. Also asphalt is easily damaged by leaking oil or other solvents and can be gouged or pierced relatively easily. It requires more routine maintenance than concrete and is more susceptible to ultraviolet light (UV) radiation damage. On the other hand, asphalt is generally cheaper to install and repair than concrete. Its flexibility allows it to deform under a load instead of cracking as concrete would.

**What causes cracks and potholes?** Water, ultraviolet radiation from the sun, heating and cooling cycles, spilled oil or other solvents, heavy or long duration loads, and settlement or lifting of the subgrade all break down asphalt to varying degrees. This aging process breaks down the binder or cement which is holding the sand and gravel together. This allows the filler (sand and gravel) to be washed or blown away forming a rut or depression. As vehicles drive over these small bumps, they bounce on the already weakened asphalt and cause more cracking and breakdown of the mixture. The process accelerates as the size of the hole increases.

**What can I do to fix it?** Cracks can be cleaned with high pressure air and sealed with special fillers made for that purpose. Potholes must be cut out back to good asphalt and then refilled with a new asphalt mixture. Depending on the size and depth, the subgrade or gravel base under the asphalt may need to be repaired also.

**How can I prevent damage to it?** Keep oil or gasoline leaks from cars away from asphalt by using drip pans. Insure that all the asphalt is well drained (properly sloped so that water does not pond). Keep trees six or more feet away from the edge of asphalt to prevent root damage. Recoat the asphalt at six year intervals with a petroleum resistant seal coat.

**What is a seal coat?** This is a thin coating of asphalt binder that is applied to the surface of the asphalt to help prevent the breakdown of the asphalt into its component parts. A higher percent of solids as opposed to solvents in the seal coat is desirable since the solvents evaporate, leaving the heavier solids behind. It is normally best to use a petroleum resistant seal coat since this helps prevent future oil and gasoline spills from damaging the asphalt.

**How long does asphalt last?** The industry standard is fifteen years. However, overloading, lack of drainage, or spilling of solvents can severely decrease this expected life. Routine maintenance and seal coats can significantly increase the life.

**How often should I inspect it?** Generally a visual inspection by a qualified individual at three year intervals will provide all the information needed to plan for your asphalt maintenance.

**What is an overlay?** This is a new wearing layer of asphalt (usually one to two inches thick) placed over the older asphalt. The underlying layers must be somewhat sound or the overlay will fail very quickly. Repairs of potholes and severely cracked areas must be done before the overlay. Sometimes a non-woven fabric material is placed over the old asphalt before the overlay to reinforce it and help prevent cracks from propagating through the new overlay.

## **ELECTRICAL**

**What is included in an electrical system?** The electrical distribution system typically comes in from the power company through a transformer to your main switch gear and main feeders. It then is routed through sub-feeders to each individual unit electric meter and circuit breaker box. The power company owns and is usually responsible for everything up to and including the power transformer. The individual unit is typically responsible for everything from their individual circuit breaker on to their outlets and lights. The part in between is for the association to worry about. It usually consists of one or more large pieces of switch gear and main and sub-main feeder boxes and circuit breakers and electric meters.

**What typically fails?** Circuit breakers, contacts, wire connections, switches and other small parts most commonly fail. These parts are pieces of larger components.

**Can I substitute one manufacturer's part for another?** No. The entire component including the enclosure is U. L. approved as a unit. Only exact replacement parts can be used.

**Should I buy spare parts now?** Spare parts are typically available for about twenty years. After parts become unavailable, you must replace the entire component, enclosure and all when any small piece fails. Buying one or more spares of each item likely to fail, such as main circuit breakers, can often extend the component life significantly.

**Do changes in building codes impact cost?** Yes. You are not required to retrofit immediately upon a building code change, but you will have to upgrade whenever you have to change out a component. Also changes in code such as sizes of enclosures will make your system obsolete sooner since manufacturers don't want to keep making parts for items that don't meet new code requirements.

**What can I do to prolong the electrical component life?** Annual preventive maintenance by a licensed electrician should include inspection, cleaning of enclosures and contacts, and retorquing of all electrical connections, especially where aluminum wire is used. You can also perform other heat sensing tests to find loose connections or overloaded parts.

**What is group relamping?** As the name implies, it means changing all your light bulbs at one time or at least in large groups. By using this approach you can save on material costs through volume purchases and on labor costs by more efficient use of workers. This approach is especially efficient for fluorescent bulbs which tend to flicker and lose efficiency (grow dim) toward the end of their useful life.



**How can I save money on lighting?** Changing to higher efficiency bulbs i.e. fluorescent, high pressure sodium, halogen, etc. can save significant amounts over a period of years. Sometimes local power companies have incentive programs which help pay the initial costs.

**What about aluminum wire?** In current construction, aluminum wire is only used on main feed lines such as from the transformers to the electric meters and on to the unit breaker panels. In previous years, it was used for all wiring, because it was cheaper. This practice was discontinued because too many fires were being attributed to the aluminum wire. The aluminum tended to work itself loose from its connectors due to thermal expansion / contraction. This looseness caused sparking / arcing which generated heat and sometimes caused fires. This is why it is especially important to check and tighten aluminum wire connections.



## **ROOFS – PROCEDURAL**

**How often do I need to inspect my roof?** In order to catch problems early, and therefore reduce your long term costs, a twice yearly inspection is necessary. Spring and Fall are the best times for these inspections, which should be performed by a person familiar in roof maintenance. Additional inspections after major storms are recommended.

**What kind of maintenance does my roof need?** During the twice yearly inspections, you should clean the roof surface, drains, and down spouts, patch all tears and cracks in the surface, and replace or repair any loose or damaged flashing, caulking, pitch pockets, etc.

**What is the best kind of warranty?** Warranties may be given by the manufacturers or the installer or both. Manufacturer warranties are generally better simply because the company is usually larger. Beware of manufacturers and installers who turn out to be the same entity. All warranties are written to protect the manufacturer. They are filled with exclusions and are often prorated over the warranty life. Your best protection is to have professional, reputable people involved in the design, installation, and inspection of the work and not rely on a warranty to get you a "good roof".

**Should I take the low bidder on my re-roof project?** Price should generally be the last item you look at to decide on a contractor for a re-roof job instead of the first. If you have adequate specifications, an independent inspector, and a contractor who is recommended by your chosen material manufacturer, then the low bid is probably a good bid. Remember if you get one bid for \$30,000 and another for \$60,000 they are probably bidding "apples and oranges".

**When do I need to re-roof?** There are three approaches to this question. The first says to wait until leaks and roof problems become intolerable. The second says to preemptively re roof before any damage occurs. The first approach may be cheaper if you guess correctly and don't incur large unexpected losses. The second approach insures no damage but may incur unnecessary cost. The third is a combination of the other two and says to "maintain and wait". Keep your annual inspections and repairs and maintenance up to date and squeeze most of the life out of your roof. This is the cheapest and best if implemented properly.

**Can I re roof over my old roof?** This depends on the number of previous layers and how the old and new layers are separated and connected. Design is even more critical for a re-roof job. A complete tear off is not always required. You can inspect the surface with infrared or capacitance devices that will show areas of wet insulation which indicate failure of the roof at those locations. It is important not to trap moisture between layers or under the roofing plies.

**Do I have to replace the whole roof?** Not always. There are many relatively new roofs that are basically sound, but fail prematurely in a localized area. This could be caused by many things including: settling and ponding; rooftop equipment; poor installation; exposure to chemicals from a roof-top vent; a severe windstorm; or physical damage from people or birds. If the roof is properly inspected and mapped, it is possible to replace those bad sections and restore the roof to its original expected life.

**What can a roofing consultant do for me?** They can help you: 1) decide what kind of roof is best for your conditions 2) compare costs of like roofing products 3) determine what type of warranty you should purchase 4) write specifications for repairs or replacement 5) assess and manage the risk involved in different alternatives 6) conduct roof inspection to determine roof condition 7) resolve specific roof problems or problem areas 8) insure a quality roof installation through independent inspection of the roofing contractor. The cost of these services is usually based on the degree of difficulty and the time required to complete the work. They could be hourly, daily, or set bid prices per job depending on the wishes of the client.



## **ROOFS – TECHNICAL**

**What are the various types of roofs?** There are flat and pitched (or sloped) roofs. Pitched roofs are usually asphalt shingles or cedar shakes but could be metal or tile also. Flat roofs which are less than a 2 on 12 (2 feet of drop in 12 horizontal feet) are the most common for multifamily and commercial applications. There are three major types of flat roofs: 1) built up - layers of asphalt or coal tar and felt; 2) single ply - a rubberized sheet; 3) and modified bitumen - a chemical and physical combination of the other two categories.

**What is the best type of roof to use?** There is no single system that is best for all conditions. However sloped roofs obviously hold water for a shorter period than flat roofs and therefore are less susceptible to leaks. Unfortunately there is usually very little that can be done about slope since it is built into the structure. For sloped roofs, metal or tile / slate will last the longest, but their high cost makes them unattractive for many applications. A long life (40 year) heavy grade asphalt shingle is usually the most cost effective. Cedar is attractive, but is very poor on a life cycle basis. For flat built-up roofs, more layers are generally better, but the type and quality of the layers and bonding material between layers are the most important factors. Single plies are best in some very specific applications and modified bitumen is generally the most cost effective on a life cycle basis. Modified bitumen can be a single sheet such as the "torchdown" products or multi-layered similar to a built-up roof. A roofing consultant can help you assess which system will best meet your needs, if you require assistance.

**What are my roof's functions?** It always serves as water barrier but may also function as an insulator and as a structural component of the building.

**What is an "infrared" or "capacitance" inspection?** An infrared (IR) scan utilizes a video camera with a special lens and software to map heat traveling through an insulated roof surface. The differential temperatures so mapped indicate moisture trapped in the insulation or roofing layers. A capacitance (cap) inspection uses a small meter with metal probes to detect trapped moisture. Trapped moisture will cause premature deterioration of roofing materials and must not be covered over with a new roof.

**What does a surface coating do?** This is usually a white or silver colored layer that is applied over the main roof membrane to protect it from the sun's ultraviolet radiation. Since this sacrificial layer is deteriorating to protect the roof, it must be replenished or re-coated at three to five year intervals. These coatings are effective only if the roof has not deteriorated too far. It is not a substitute for a new roof. Many roof warranties require a reflective coat within one year or the warranty is voided.

**Is ponding water a problem?** Yes! First there is the obvious fact that the longer water sits on a roof, the more likely it is to find a crack to seep through. Water also attracts dirt and airborne chemicals that are left behind in concentrated form when the water evaporates. The water also causes local temperature differences in the roof which causes moisture to be pulled back and forth within the roof itself. The chemicals and moisture migration cause premature failures of the roof membrane. Water should be removed even if you have to add drains to the roof.

**What determines how long my roof will last?** The life of roofs can vary from 2 or 3 years to 20 or 30 years depending on the quality of your

1. Design
2. Materials
3. Installation
4. Periodic Inspection
5. Maintenance

Proper inspection of the installation procedure and materials is also essential for quality assurance.

## **Wood Rot**

**What is "dryrot" or wood rot?** It is damaged wood. Wood rot is caused by a wood fungus which is a primitive plant that gets its nutrients from the wood structure.

**How do I identify it?** The most common type found in the Pacific Northwest is Brown Rot. It decays the wood into small brown crumbly pieces. In some cases a visual inspection is all that is required, but generally a gently poking or prying of the wood with a knife or screwdriver is necessary. Rotted wood will feel "punky" or "spongy" and be much weaker than unrotted wood. Water stains in the wood are often an indicator of problems. Open end grain is most susceptible to it.

**Why is it a problem?** The fungus literally eats the wood structure and leaves sawdust behind. The wood then has no structural strength and whatever is being supported by the wood can collapse.

**What causes it?** The fungus is, of course, the cause but it cannot survive without the same environmental conditions which most living organisms need: air, lots of moisture, a food source (wood) and favorable temperatures. Posts and boards often rot on the inside because exposed surfaces dry out enough to prevent growth.

**What can I do if I have it?** Typically, there are two things that need to be done. Replace or reinforce the structural wood members that are infected and remove the source of water or moisture. If the water is removed, then the fungus growth will stop, but the wood will not regain its strength. If the wood is replaced but the water remains, the fungus will reappear immediately even if all of the infected wood was removed from the scene. This is due to the fact that this fungus reproduces by microscopic airborne spores which are constantly in the air throughout the Pacific Northwest.

**How do I prevent it?** The best way to prevent wood rot is not to allow the wood to come in contact with water or excessive moisture in the air (if the wood feels wet or moist, it is in danger). Caulking wood siding, raising wood posts above the ground on concrete foundations, placing plastic sheeting down as a vapor barrier under buildings and providing ventilation in closed spaces are typical methods of prevention. Sometimes, you cannot eliminate the moisture such as for some exterior wood decks or wood posts buried in the ground. In these cases, you can use wood that possesses a natural resistance to the fungus attack or is chemically treated. The most common and cheapest in the Pacific Northwest is cedar, although redwood and cypress work well also. If appearance is not as important as cost, the cheaper alternative is to use "treated" wood. This is wood that has been soaked in a preservative and comes in one type for above-ground use and another for in-ground use. Cedar and treated wood will rot eventually but will last longer.



**Are there other types of wood rot?** Other related types of wood rot include mold, sapstain, white rot and soft rot. These are not as common as the brown rot in the Pacific Northwest nor are they as destructive. However, they are important because they also require moisture to survive and can therefore be a precursor to the brown rot. Additionally, they can actually spread moisture through the wood in their "roots" and the millions of airborne spores they can produce can make people sick.

**Summary** Wood rot is a major potential problem to nearly all wood structures in the Pacific Northwest. Annual inspection of all wood components can spot this problem early and allow for prompt replacement of the damage and corrective preventive steps.

## **GLOSSARY OF TERMS**

If a term is defined by law, it is so noted and placed within quotes. Some terms, like “significant assets” have different definitions from the Condominium Act or Homeowners’ Association Act, so both are provided here.

**Asbestos** – A naturally occurring mineral that can break into small fibrous particles. It was used extensively in the past as a pipe insulator and in some interior ceiling textures. It has been banned for many years because it was shown to cause cancer. There are significant costs and regulations applicable when asbestos is present at any repair site.

**Asphalt** – A common type of pavement. See General Information section titled “Asphalt” when applicable to this report.

**Backing Rod** – A plastic foam substance resembling a rope that is cut to length and forced into large cracks in sidewalks or walls. It is used under sealant compounds to reduce the space that needs to be filled with sealant, and to provide a proper cross sectional shape.

### **“Baseline Funding Plan” –**

Condominiums - It means establishing a reserve funding goal of maintaining a reserve account balance above zero dollars throughout the thirty-year study period described under RCW 64.34.380. RCW 64.34.020 (41)

Homeowners’ Associations - It means establishing a reserve funding goal of maintaining a reserve account balance above zero dollars throughout the thirty-year study period described under section 9 of ESHB 1309. ESHB 1309 Sec. 7 (8)

**Building Codes** - Nationally recognized standards used to gauge the acceptability of a particular material or building procedure. Typically, if something is built to “code,” it is acceptable to all concerned. Some often used codes are International Building Code (IBC) (applicable to most multifamily housing), International Residential Code (IRC)(applicable to one and two family structures), Washington Energy Code, National Electric Code (NEC), Uniform Plumbing Code (UPC) , National Fire Protection Association Standards (NFPA). These are usually amended slightly by each city or county.

**Building Component** – See “Reserve Component”.

**Caulking** - A latex or polyurethane based material, usually applied from a tube, used to seal cracks for painting. See also “Sealant”.



**Circuit Breakers** - These are basically reusable fuses. They serve as the weak point in an electrical circuit so that if too much current goes through the wires, they shut off the power.

**Component Number** - A number assigned to each reserve component that allows grouping of like components. Based roughly on Construction Industry Standards.

**Common Elements** – Those portions of the building which are owned collectively by all Unit owners in a community, and for which the association is responsible.

**"Contribution Rate"** means, in a Reserve Study as described in RCW 64.34.380, the amount contributed to the reserve account so that the association will have cash reserves to pay major maintenance, repair, or replacement costs without the need of a special assessment. RCW 64.34.020 (10) and ESHB 1309 Sec. 7 (9)

**Constant Dollars** - Pretends that inflation does not exist. Shows all costs and contributions in today's dollars, no matter how far in the future they occur.

**"Effective Age"** Means the difference between the estimated useful life and the remaining useful life. RCW 64.34.020 (19) and ESHB 1309 Sec. 7 (10)

**EIFS** - Exterior Insulation and Finish System. An exterior building system with the outward look of stucco. It is actually a base of expanded foam insulation and then progressive layers of fiberglass mesh, base coat and elastomeric finish coat with color mixed in. It is marketed as a waterproof, lifetime finish, but has had many problems in the Pacific Northwest.

**Electrical Switch Gear** - Basically a huge switch that turns power on or off to all or part of a building; includes electrical enclosures, fuses, large breakers, and connecting equipment (see General Information section titled "Electrical" when applicable to this report.)

**Experience** - A term used in component sheets to describe how a component Useful Life might be determined. This term indicates that the inspector is using his past knowledge of similar situations to predict a 'useful life'.

**Flashing** - Typically sheet metal pieces that transition between different materials on the exterior of a building; common along edges of roofing surfaces, decks, and over top of penetrations in siding systems like windows and vents. Flashing can be made from painted or galvanized steel, aluminum, rubber, or from roofing material. Flexible membrane flashing is commonly used around window and vent installations under the exterior siding systems.

**"Fully Funded Balance"** Means the current value of the deteriorated portion, not the total replacement value, of all the reserve components. The Fully Funded Balance for

each reserve component is calculated by multiplying the current replacement cost of that reserve component by its effective age, then dividing the result by that reserve component's useful life. The sum total of all reserve components' Fully Funded Balances is the association's fully funded balance. RCW 64.34.020 (22) and ESHB 1309 Sec. 7 (12)

**“Full Funding Plan” –**

**Condominiums** - It means setting a reserve funding goal of achieving one hundred percent fully funded reserves by the end of the thirty-year study period described under RCW 64.34.380, in which the reserve account balance equals the sum of the deteriorated portion of all reserve components. RCW 64.34.020 (42)

**Homeowners' Associations** - It means setting a reserve funding goal of achieving one hundred percent funded reserves by the end of the thirty-year study period described under section 9 of ESHB 1309, in which the reserve account balance equals the sum of the deteriorated portion of all reserve components. ESHB 1309 Sec. 7 (11)

**G.F.I. - Ground Fault Interrupter** - This is a special circuit breaker or outlet that turns off if the current flowing to and from the outlet don't match. It is designed to prevent electric shock. GFI's are required by code in high risk (wet and damp) locations like bathrooms, kitchens, and garages.

**HVAC - Heating, Ventilation, and Air Conditioning.**

**Inflated Dollars** - As opposed to constant dollars, inflated dollars recognize that costs in the future will probably be higher than today because each dollar will buy fewer goods and services. A rate of inflation must be assumed and applied to all future costs. Also referred to as future cost.

**Inflation Multiplier** - 100% plus the assumed rate of inflation. Thus, for an assumed yearly inflation rate of 5%, the "multiplier" would be 105% or 1.05 if expressed as a decimal number rather than as a percentage. Each successive year the previous year's "multiplier" is multiplied by this number to arrive at the next year's "multiplier."

**Interest Rate Multiplier** - The assumed rate of interest earned on the average annual reserve bank account balance. Thus, 4% interest would be 0.04 expressed as a decimal number. A rate of interest earned must be assumed for all future years. Typically this is lower than the rate of inflation.



**Limited Common Element** – Those common elements which are assigned exclusively to one or some Units. Unit owners may be responsible for the cost to repair and maintain limited common elements, so those costs will not appear in a Reserve Study.

**Means** - A term used in component sheets to describe how a component 'typical life' might be determined. This term refers to a book published by RS Means. The book lists various maintenance terms, problem solutions, and 'typical lives'.

**Next Repair** – The next time the "Repair Cycle" starts with work on a component.

**Percent Fully Funded** – The percent of the Fully Funded Balance which the current community Reserve Account actually has in it.

**Preventive Maintenance** - Any procedure that extends the life of the item you are working on. Includes both inspections to discover problems and regularly scheduled repairs.

**RCW** – the **R**evised **C**ode of **W**ashington. RCW 64.34 is the Washington Condominium Act; the statute that governs condominiums. RCW 64.38 is the Washington Homeowners' Association Act; the statute that governs Homeowners' Associations.

**"Remaining Useful Life"** Means the estimated time, in years, before a component will require major maintenance, repair, or replacement to perform its intended function. RCW 64.34.020 (31) and ESHB 1309 Sec. 7 (15)

**Repair Cycle** – The frequency of repair to maintain a component to reach or extend its Useful Life

**"Replacement Cost"** Means the current cost of replacing, repairing, or restoring a reserve component to its original functional condition. RCW 64.34.020 (32) and ESHB 1309 Sec. 7 (16)

**Reserve Account** - Money set aside for future repair and replacement projects. For condominiums, the RCW requires a separate Reserve Account be maintained to hold reserves to fund repair or replacement of Reserve Components.

**"Reserve Component"** Means a common element whose cost of maintenance, repair, or replacement is infrequent, significant, and impractical to include in an annual budget. RCW 64.34.020 (34) and ESHB 1309 Sec. 7 (17)

**Reserve Contribution** - The amount of money saved to fund "replacement Costs" for maintenance and repairs of Common Elements. See "Contribution Rate". Current contributions and recommended contributions may be different.

**Reserve Specialist** – A designation for those professionals who have met the standards established by Community Associations Institute ([www.caionline.org](http://www.caionline.org)) for Reserve Study providers.

**Reserve Study** - A physical assessment of a building and a subsequent report that estimates which shall estimate the anticipated major maintenance, repair, and replacement costs, whose infrequent and significant nature make them impractical to be included in an annual budget, which will need to be repaired or replaced over the next 30 years. It provides estimates of these replacement costs and details expected annual expenditures. It is used to calculate reserve contribution rate required to maintain a facility in good condition both functionally and cosmetically. The Washington Condominium Act sets out requirements for annual reserve studies.

**"Reserve Study Professional"** Means an independent person suitably qualified by knowledge, skill, experience, training, or education to prepare a reserve study in accordance with RCW 64.34.380 and 64.34.382. RCW 64.34.020 (35) and ESHB 1309 Sec. 7 (18)

**RSG** - A term used in component sheets to describe how a component 'typical life' might be determined. This term stands for 'Reserve Study Guide' which is a publication that lists some 'typical lives' for various components.

**Sealant** – A flexible material used to span joints between materials or expansion joints in a building exterior. Often made of urethane or silicone based materials. Usually applied over a closed cell backer rod or bond breaker tape to prevent excessive thickness and allow the joint to flex properly.

**"Significant assets"** –

Condominiums - It means that the current total cost of major maintenance, repair, and replacement of the reserve components is fifty percent or more of the gross budget of the association, excluding reserve account funds. RCW 64.34.020 (43)

Homeowners' Associations - It means that the current replacement value of the major reserve components is seventy-five percent or more of the gross budget of the association, excluding the association's reserve account funds. ESHB 1309 Sec. 7 (19)

An example to calculate whether an association has significant assets is the following:

If the association has a sign (\$1,000), 3 park benches (\$1,500), and a fence along a property line (\$10,000), then their total cost for reserve component replacement would be \$12,500.

For a condominium, the association would have significant assets if the operating budget was less than \$25,000 per year ( $\$12,500/\$25,000=50\%$ ).

For a homeowner association, the association would have significant assets if their operating budget was less than \$16,667 per year ( $\$12,500/16,667=75\%$ ).

**Special Assessment** - A levy against all unit owners that is necessary when a needed repair/replacement/upgrade has not been planned for and for which no money has been saved.

**Threshold Funding Plan** – Our typical recommendation is a reserve Contribution Rate that is constant, increasing with inflation, to provide funds for all anticipated Reserve Expenses for the life of the study, but leaving a minimum level of Reserves (the “threshold”) at all times. Our default minimum threshold is one year’s contribution. It is also possible to have a “Threshold Funding Plan” that sets a minimum “Percent Fully Funded” below which an association would not fall during the study period or a specific money amount in constant or inflated dollars

**Typ.** - Abbreviation for ‘typical’ ; used on photographs and in text to refer to a problem that is shown or described once, but applies to many locations.

**Typical Life** - An average expected life for an average reserve component. As in any statistical average, there is a range of years over which each individual item might fall. This is the same as “Useful life”

**“Useful Life”** Means the estimated time, between years, that major maintenance, repair, or replacement is estimated to occur. RCW 64.34.020 (40) and ESHB 1309 Sec. 7 (20)

**U.L. Listed** - A designation used on electrical equipment of all kinds from lamps to circuit breakers. It stands for **Underwriters Laboratories** which safety tests and accepts or rejects electrical supplies and equipment. Other equipment or materials may also be tested and listed, but electrical is the most common.

**Wood Rot or Dry Rot** - A common type of damage to wood. See the General Information page titled "Wood Rot" when applicable to this report.

**Year End Balance or Reserve Balance** - What is projected to be left in the reserve account after the expected yearly expenses and contributions are added to the prior year's carryover balance. Assumes that the reserve contributions expenses occur as predicted.

**Yearly Expenses** - The total labor and material costs associated with all of the repairs/maintenance that are scheduled in that particular year.





**30-Year Spreadsheet** - A summary listing each reserve component and its yearly cost to maintain/repair over the next 30 years. It also lists the annual reserve balance, reserve contributions, reserve expenses and bank interest earned on any reserve balance.

## **GRAPHS & TABLES**

The following pages include the graphs and tables which illustrate our findings and were used to determine the optimum annual reserve contribution rate to the reserve account. It is important to realize that some of these items have large unknowns for both time and price. The estimates are based upon experience, industry averages and apparent component condition.

There are two categories of graphs and tables: Fully Funded Balance related and Reserve Projections related. The Fully Funded Balance material details how Lummi Island Scenic Estates's Fully Funded Balance was reached, along with its Percent Fully Funded and how we project they will change over time. The Reserve Projections material details the anticipated repairs and expected financial data over the next 30 years, both in constant dollars at today's value, and using our inflation forecasts.

The included Fully Funded Balance graphs and tables are:

1. Table – Fully Funded Balance Calculations
2. Graph – Percent Fully Funded
3. Graph – Inflated Percent Funded at Year End Over 30 Years at Recommended Contribution Rate
4. Graph – Inflated Fully Funded Balance vs. Projected Reserve Balance over 30 Years at Recommended Contribution Rate

The included Reserve Projection graphs and tables are:

1. Graph – Lummi Island Scenic Estates Reserve Projections: 2013 Constant Dollars
2. Table – Reserve Study Projections: 30-Year Spreadsheet with Constant Dollars
3. Graph – Lummi Island Scenic Estates Reserve Projections: Inflated Dollars
4. Table – Reserve Study Projections: 30-Year Spreadsheet Allowing for Inflation

## Fully Funded Balance Calculations

## LUMMI ISLAND

COMPONENT DESCRIPTION	Quantity	Unit	REPAIR CYCLE	REMAINING USEFUL LIFE	CURRENT REPLACE COST	FULLY FUNDED BALANCE
Asphalt Pavement	1	LS	10	2	\$ 20,000	\$ 16,000
Chain Link Fence	320	LF	30	20	\$ 7,008	\$ 2,336
Playground	1	EA	0	0	\$ -	\$ -
Dock Work	1	LS	50	10	\$ 35,000	\$ 28,000
Dock Pilings	1	LS	50	20	\$ 100,000	\$ 60,000
Siding	1	LS	0	0	\$ -	\$ -
Roofing, Sloped	1	LS	0	0	\$ -	\$ -
Roofing, Flat	17	SQ	20	10	\$ 22,338	\$ 11,169
Garage Doors	3	EA	20	10	\$ 3,942	\$ 1,971
Clubhouse	1	LS	10	5	\$ 25,000	\$ 12,500
Common Buildings	1	LS	10	5	\$ 20,000	\$ 10,000
Water Meters	218	EA	20	17	\$ 50,000	\$ 7,500
Valves	1	LS	20	15	\$ 105,000	\$ 26,250
Water Towers, Circulation System	2	EA	30	1	\$ 16,000	\$ 15,467
Water Towers, Repair	2	EA	25	0	\$ 10,000	\$ 10,000
Reservoir & Dam	1	LS	30	15	\$ 100,000	\$ 50,000
Swim Lake Dock & Beach Upgrades	1	LS	30	5	\$ 6,000	\$ 5,000
Swim Lake Dam Repairs	1	LS	15	15	\$ 5,000	\$ -
Clearwell	1	LS	5	5	\$ 20,000	\$ -
Treatment Plant	1	LS	20	15	\$ 77,000	\$ 19,250
Water Mains	17849	LF	10	10	\$ 75,000	\$ -
Septic Systems	2	EA	15	15	\$ 10,000	\$ -
Generator	1	EA	45	15	\$ 12,000	\$ 8,000
Backhoe	1	EA	25	5	\$ 50,000	\$ 40,000
Truck	1	EA	10	6	\$ 25,000	\$ 10,000
Tractor Mower	1	EA	20	10	\$ 4,000	\$ 2,000
Professional Services	1	LS	15	15	\$ 100,000	\$ -
<b>FULLY FUNDED BALANCE</b>					<b>Total</b>	<b>\$ 335,443</b>

**ACTUAL RESERVE BALANCE = \$268,553**

**PERCENT FULLY FUNDED = 80%**

5/31/2013

### ABBREVIATION KEY

**EA** each

**LF** linear foot

**SQ** roofing square

**BLDG** building(s)

**LS** lump sum

**SY** square yard

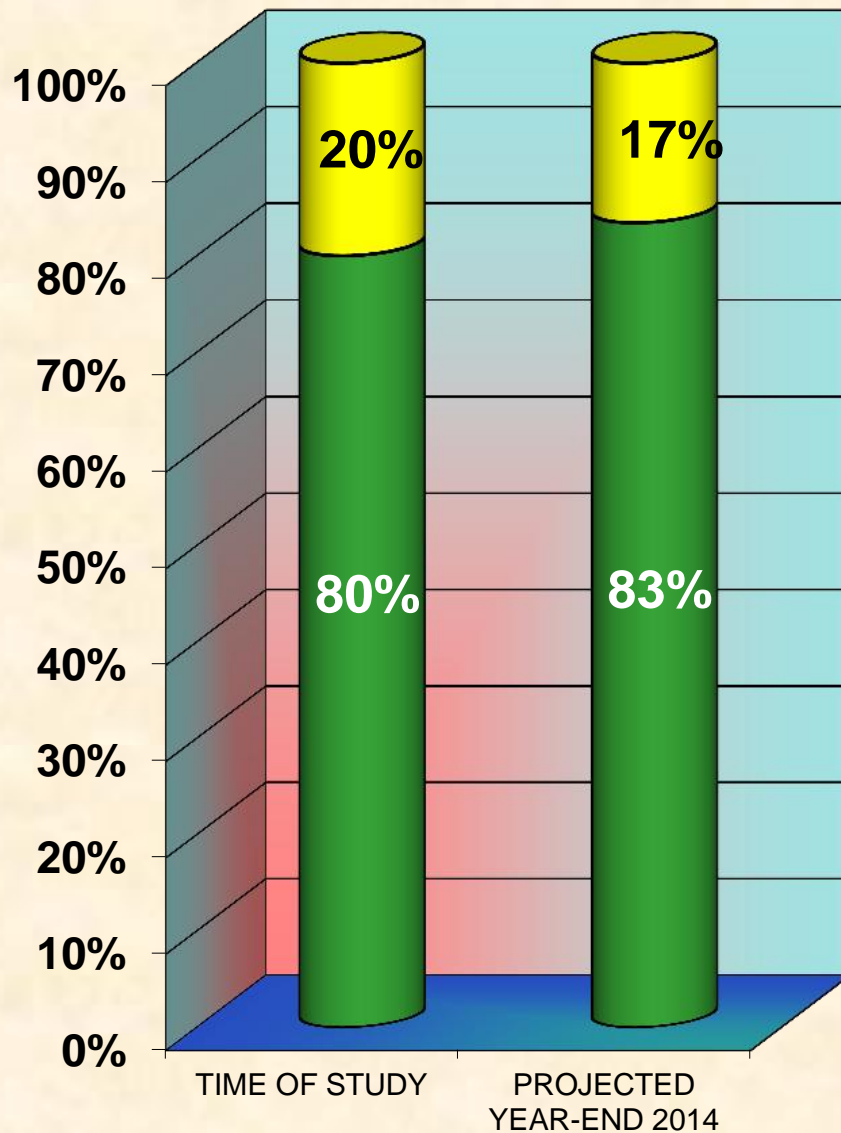
**FIXT** fixture(s)

**SF** square foot

**ZN** zone



## LUMMI ISLAND PERCENT FULLY FUNDED GRAPH



■ UNFUNDED BALANCE

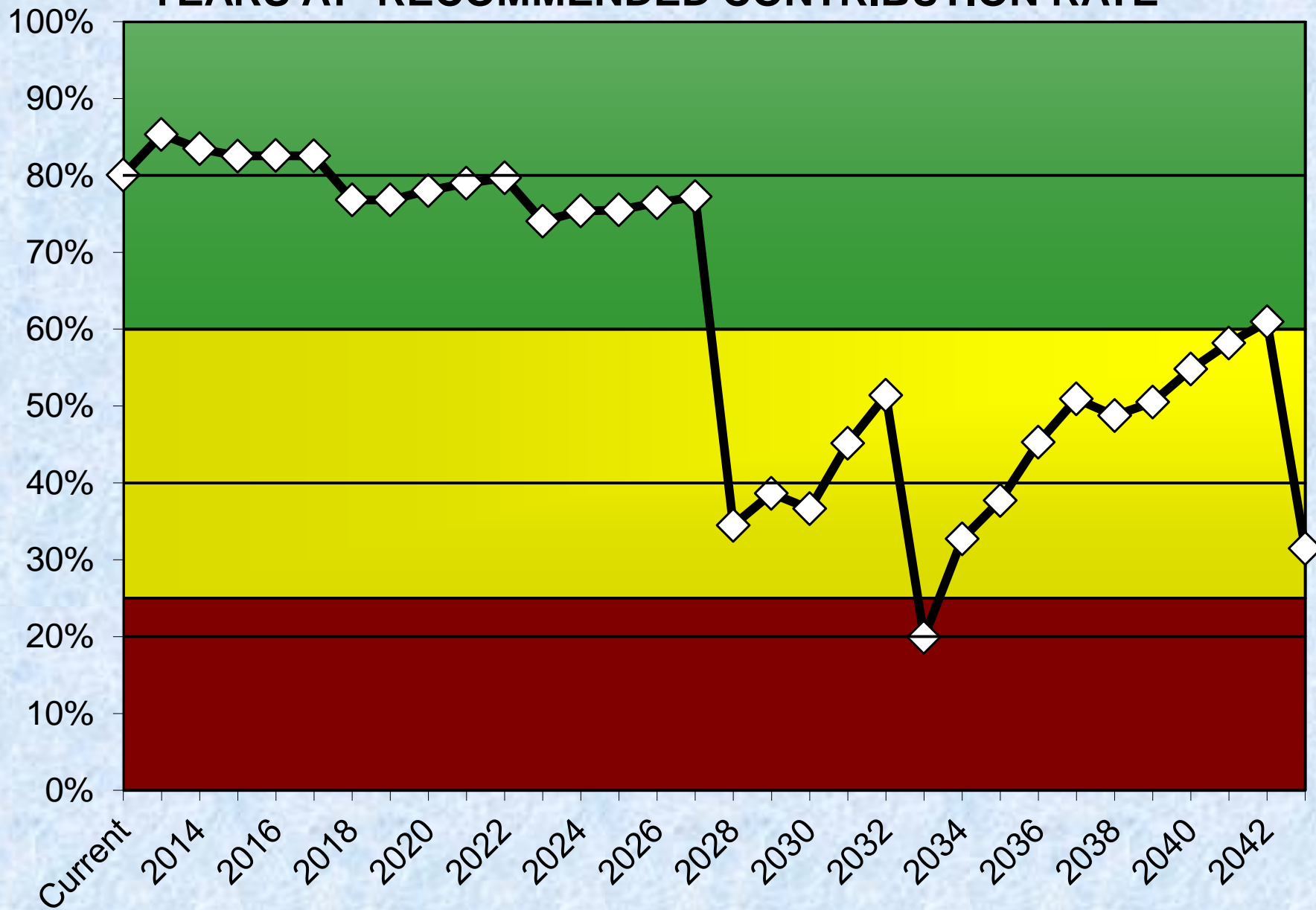
■ ACTUAL RESERVE BALANCE %



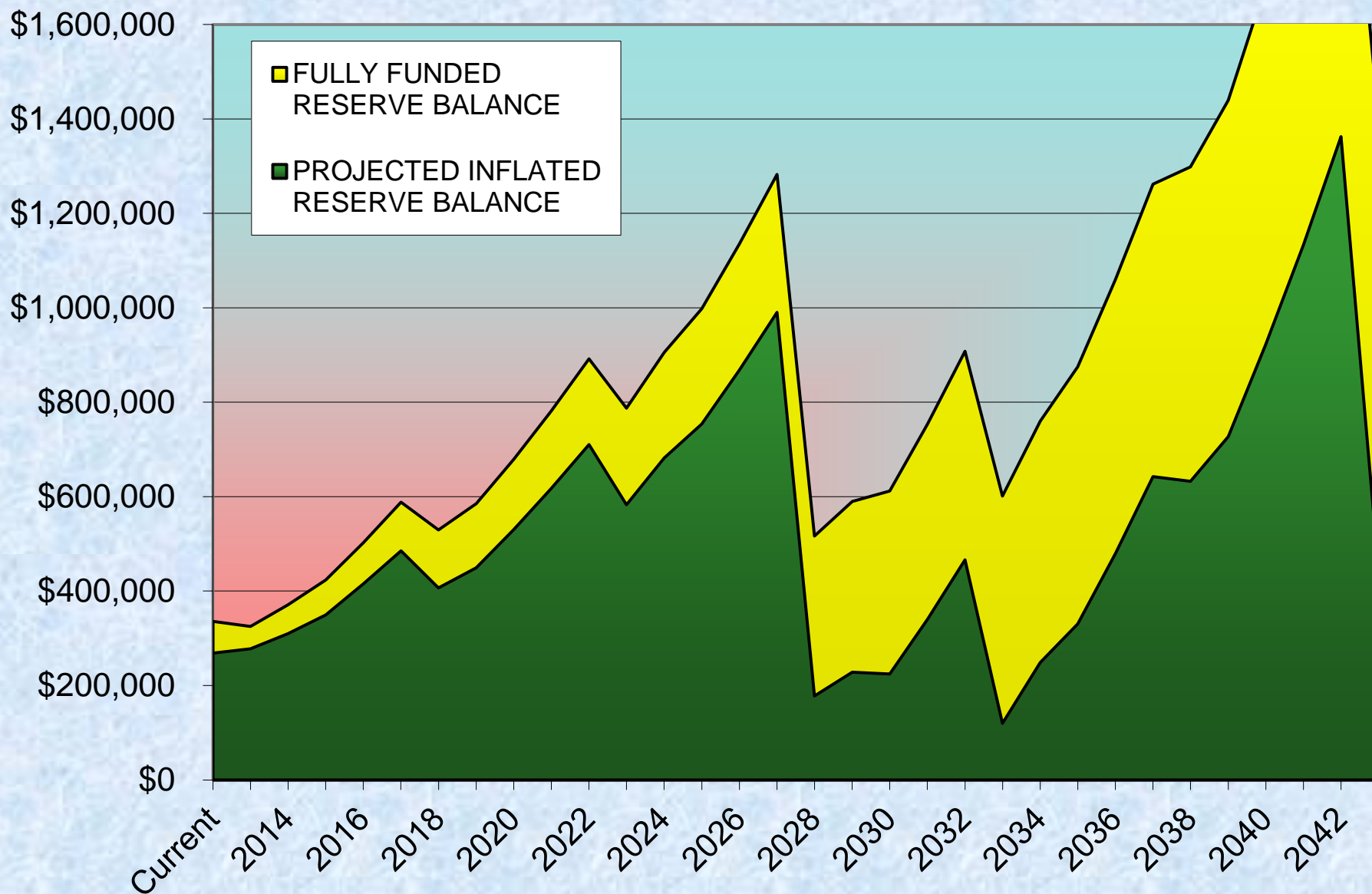
*Reserve  
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[www.reserveconsultants.net](http://www.reserveconsultants.net) PO Box 2068, Kirkland, WA. 98083-2068 206.523.3248 FAX 206.633.1521

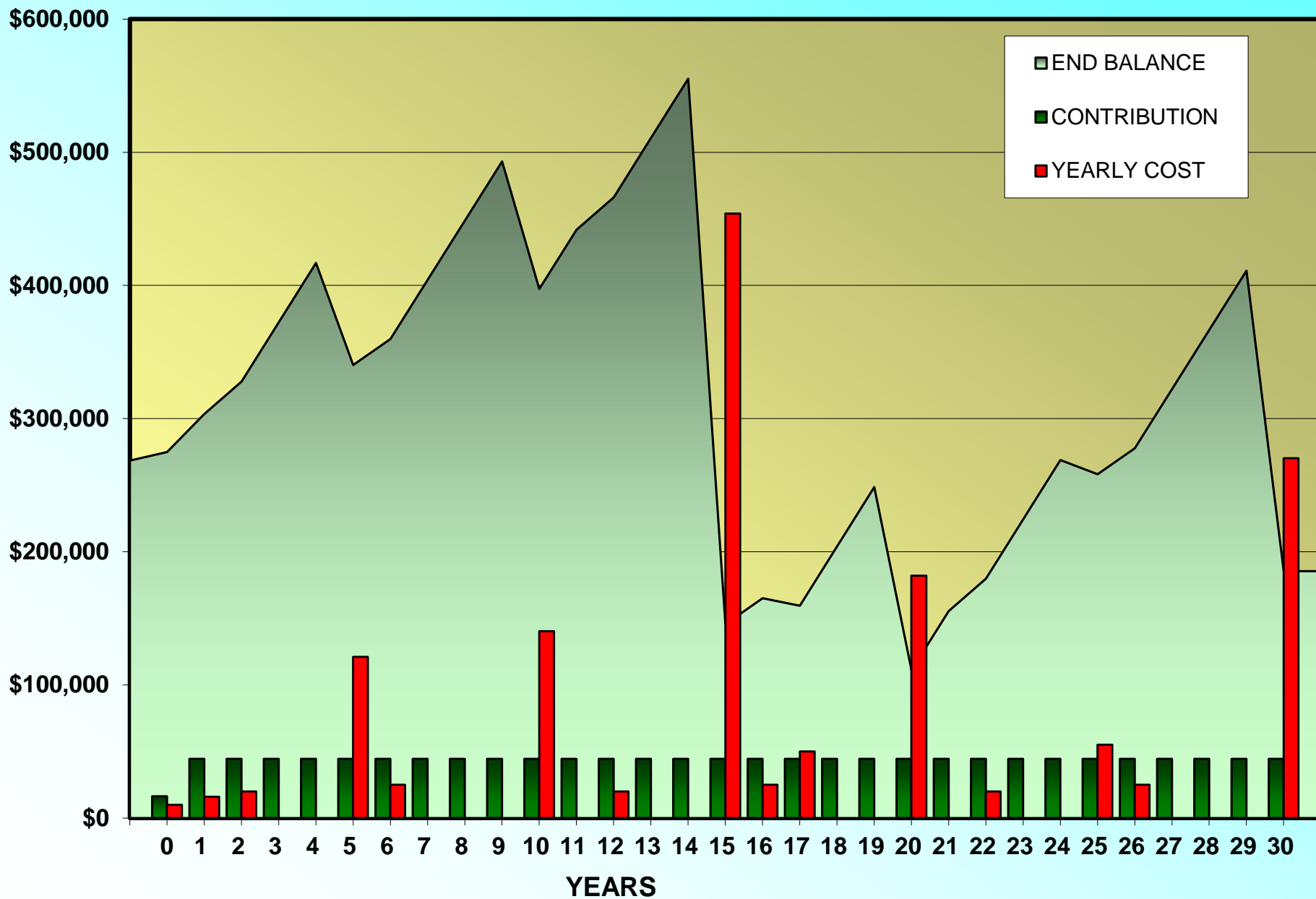
## INFLATED PERCENT FUNDED AT YEAR END OVER 30 YEARS AT RECOMMENDED CONTRIBUTION RATE



## INFLATED FULLY FUNDED BALANCE VS. PROJECTED RESERVE BALANCE OVER 30 YEARS AT RECOMMENDED CONTRIBUTION RATE



# LUMMI ISLAND RESERVE STUDY PROJECTIONS: 2013 CONSTANT DOLLARS





## LUMMI ISLAND

## Reserve Study Projections

## Reserve Consultants Ltd.

## 30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

DATE: 31-May-13

PER YEAR EXPENSES IN 2013 DOLLARS

#	COMPONENT NAME	REPAIR CYCLE	NEXT EXP.	0 2013	1 2014	2 2015	3 2016	4 2017	5 2018	6 2019	7 2020	8 2021	9 2022	10 2023
2.6.1	Asphalt Pavement	10	2			\$20,000								
2.7.1	Chain Link Fence	30	20											
2.8.1	Playground													
2.9.1	Dock Work	50	10											\$35,000
2.9.1	Dock Pilings	50	20											
6.2.1	Siding													
7.4.1	Roofing, Sloped													
7.4.2	Roofing, Flat	20	10											\$22,338
8.3.1	Garage Doors	20	10											\$3,942
12.1.1	Clubhouse	10	5						\$25,000					
12.1.2	Common Buildings	10	5						\$20,000					
15.1.1	Water Meters	20	17											
15.1.2	Valves	20	15											
15.2.1	Water Towers, Circulation System	30	1		\$16,000									
15.2.1	Water Towers, Repair	25	0	\$10,000										
15.2.2	Reservoir & Dam	30	15											
15.2.3	Swim Lake Dock & Beach Upgrades	30	5						\$6,000					
15.2.3	Swim Lake Dam Repairs	15	15											
15.3.1	Clearwell	5	5						\$20,000					
15.4.1	Treatment Plant	20	15											
15.5.1	Water Mains	10	10											\$75,000
15.6.1	Septic Systems	15	15											
16.5.1	Generator	45	15											
18.1.1	Backhoe	25	5						\$50,000					
18.1.2	Truck	10	6							\$25,000				
18.3.1	Tractor Mower	20	10											\$4,000
20.1.1	Professional Services	15	15											
TOTAL EXPENDED BY YEAR				\$10,000	\$16,000	\$20,000			\$121,000	\$25,000				\$140,280
CARRY OVER RESERVES				\$268,553	\$274,910	\$303,376	\$327,842	\$372,308	\$416,774	\$340,240	\$359,706	\$404,172	\$448,638	\$493,104
ANNUAL RESERVE CONTRIB				\$16,357	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466
RESERVE EXPENDITURES				\$10,000	\$16,000	\$20,000			\$121,000	\$25,000				\$140,280
ACCUMULATED RESERVES				\$274,910	\$303,376	\$327,842	\$372,308	\$416,774	\$340,240	\$359,706	\$404,172	\$448,638	\$493,104	\$397,290
INTEREST EARNED														
YEAR-END BALANCE				\$274,910	\$303,376	\$327,842	\$372,308	\$416,774	\$340,240	\$359,706	\$404,172	\$448,638	\$493,104	\$397,290

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NOTES: 1. Year Zero carry over balance is the current actual reserve balance as reported to Reserve Consultants Ltd.  
 2. Year Zero reserve contribution is that estimated for the remainder of the year, following preparation of this report.

## LUMMI ISLAND

Reserve Consultants, Ltd.

## 30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

DATE: 31-May-13

#	COMPONENT NAME	REPAIR CYCLE	NEXT EXP.	11 2024	12 2025	13 2026	14 2027	15 2028	16 2029	17 2030	18 2031	19 2032	20 2033
2.6.1	Asphalt Pavement	10	2		\$20,000								
2.7.1	Chain Link Fence	30	20										\$7,008
2.8.1	Playground												
2.9.1	Dock Work	50	10										
2.9.1	Dock Pilings	50	20										\$100,000
6.2.1	Siding												
7.4.1	Roofing, Sloped												
7.4.2	Roofing, Flat	20	10										
8.3.1	Garage Doors	20	10										
12.1.1	Clubhouse	10	5					\$25,000					
12.1.2	Common Buildings	10	5					\$20,000					
15.1.1	Water Meters	20	17							\$50,000			
15.1.2	Valves	20	15					\$105,000					
15.2.1	Water Towers, Circulation System	30	1										
15.2.1	Water Towers, Repair	25	0										
15.2.2	Reservoir & Dam	30	15					\$100,000					
15.2.3	Swim Lake Dock & Beach Upgrades	30	5										
15.2.3	Swim Lake Dam Repairs	15	15					\$5,000					
15.3.1	Clearwell	5	5										
15.4.1	Treatment Plant	20	15					\$77,000					
15.5.1	Water Mains	10	10										\$75,000
15.6.1	Septic Systems	15	15					\$10,000					
16.5.1	Generator	45	15					\$12,000					
18.1.1	Backhoe	25	5										
18.1.2	Truck	10	6						\$25,000				
18.3.1	Tractor Mower	20	10										
20.1.1	Professional Services	15	15					\$100,000					
TOTAL EXPENDED BY YEAR					\$20,000			\$454,000	\$25,000	\$50,000			\$182,008
CARRY OVER RESERVES				\$397,290	\$441,756	\$466,222	\$510,688	\$555,154	\$145,620	\$165,086	\$159,552	\$204,018	\$248,484
ANNUAL RESERVE CONTRIB				\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466
RESERVE EXPENDITURES				\$20,000	\$20,000			\$454,000	\$25,000	\$50,000			\$182,008
ACCUMULATED RESERVES				\$441,756	\$466,222	\$510,688	\$555,154	\$145,620	\$165,086	\$159,552	\$204,018	\$248,484	\$110,942
INTEREST EARNED													
YEAR-END BALANCE				\$441,756	\$466,222	\$510,688	\$555,154	\$145,620	\$165,086	\$159,552	\$204,018	\$248,484	\$110,942

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NOTES: 1. Year Zero  
2. Year Zt

NOTES: 1. Year Zero carry over balance is the current actual reserve balance as reported to Reserve Consultants Ltd.  
2. Year Zero reserve contribution is that estimated for the remainder of the year, following preparation of this report.

## LUMMI ISLAND

Reserve Consultants, Ltd.

## 30-YEAR SPREADSHEET WITH CONSTANT DOLLARS

DATE: 31-May-13

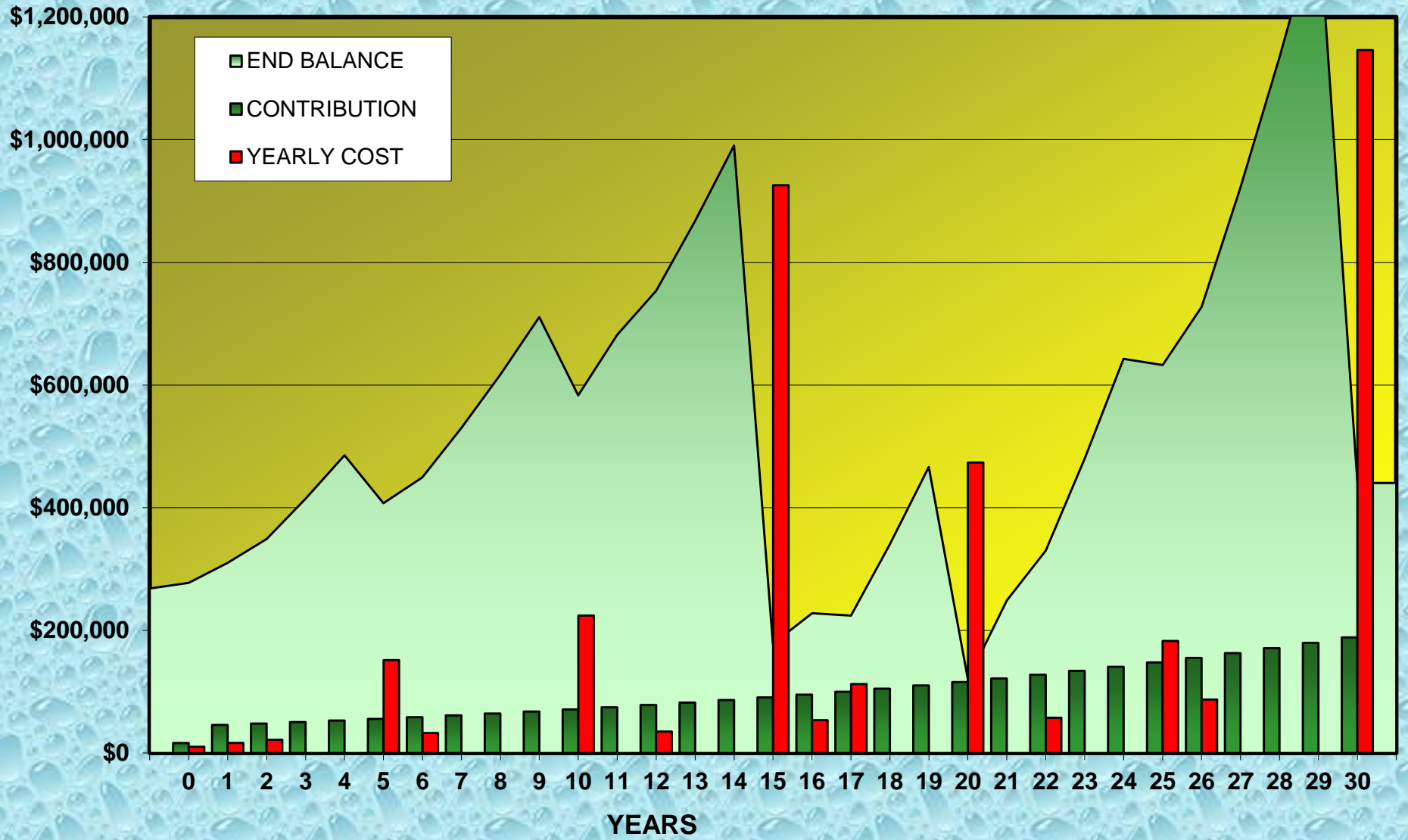
#	COMPONENT NAME	REPAIR CYCLE	NEXT EXP.	21 2034	22 2035	23 2036	24 2037	25 2038	26 2039	27 2040	28 2041	29 2042	30 2043
2.6.1	Asphalt Pavement	10	2		\$20,000								
2.7.1	Chain Link Fence	30	20										
2.8.1	Playground												
2.9.1	Dock Work	50	10										
2.9.1	Dock Pilings	50	20										
6.2.1	Siding												
7.4.1	Roofing, Sloped												
7.4.2	Roofing, Flat	20	10										\$22,338
8.3.1	Garage Doors	20	10										\$3,942
12.1.1	Clubhouse	10	5					\$25,000					
12.1.2	Common Buildings	10	5					\$20,000					
15.1.1	Water Meters	20	17										
15.1.2	Valves	20	15										
15.2.1	Water Towers, Circulation System	30	1										
15.2.1	Water Towers, Repair	25	0					\$10,000					
15.2.2	Reservoir & Dam	30	15										
15.2.3	Swim Lake Dock & Beach Upgrades	30	5										\$5,000
15.2.3	Swim Lake Dam Repairs	15	15										
15.3.1	Clearwell	5	5										
15.4.1	Treatment Plant	20	15										
15.5.1	Water Mains	10	10										\$75,000
15.6.1	Septic Systems	15	15										\$10,000
16.5.1	Generator	45	15										
18.1.1	Backhoe	25	5										\$50,000
18.1.2	Truck	10	6						\$25,000				
18.3.1	Tractor Mower	20	10										\$4,000
20.1.1	Professional Services	15	15										\$100,000
TOTAL EXPENDED BY YEAR					\$20,000			\$55,000	\$25,000				\$270,280
CARRY OVER RESERVES				\$110,942	\$155,408	\$179,874	\$224,340	\$268,806	\$258,272	\$277,739	\$322,205	\$366,671	\$411,137
ANNUAL RESERVE CONTRIB				\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466	\$44,466
RESERVE EXPENDITURES					\$20,000			\$55,000	\$25,000				\$270,280
ACCUMULATED RESERVES				\$155,408	\$179,874	\$224,340	\$268,806	\$258,272	\$277,739	\$322,205	\$366,671	\$411,137	\$185,323
INTEREST EARNED													
YEAR-END BALANCE				\$155,408	\$179,874	\$224,340	\$268,806	\$258,272	\$277,739	\$322,205	\$366,671	\$411,137	\$185,323

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NOTES: 1. Year Zero  
2. Year Zt

NOTES: 1. Year Zero carry over balance is the current actual reserve balance as reported to Reserve Consultants Ltd.  
2. Year Zero reserve contribution is that estimated for the remainder of the year, following preparation of this report.

## LUMMI ISLAND RESERVE STUDY PROJECTIONS: INFLATED DOLLARS



## LUMMI ISLAND

## Reserve Study Projections

Reserve Consultants Ltd.

## 30-YEAR SPREADSHEET ALLOWING FOR INFLATION

DATE: 31-May-13

PER YEAR EXPENSES (adjusted for inflation)

#	COMPONENT NAME	REPAIR CYCLE	NEXT EXP.	0 2013	1 2014	2 2015	3 2016	4 2017	5 2018	6 2019	7 2020	8 2021	9 2022	10 2023
2.6.1	Asphalt Pavement	10	2			\$21,630								
2.7.1	Chain Link Fence	30	20											
2.8.1	Playground													
2.9.1	Dock Work	50	10											\$55,925
2.9.1	Dock Pilings	50	20											
6.2.1	Siding													
7.4.1	Roofing, Sloped													
7.4.2	Roofing, Flat	20	10											\$35,693
8.3.1	Garage Doors	20	10											\$6,299
12.1.1	Clubhouse	10	5						\$31,299					
12.1.2	Common Buildings	10	5						\$25,039					
15.1.1	Water Meters	20	17											
15.1.2	Valves	20	15											
15.2.1	Water Towers, Circulation System	30	1		\$16,480									
15.2.1	Water Towers, Repair	25	0	\$10,000										
15.2.2	Reservoir & Dam	30	15											
15.2.3	Swim Lake Dock & Beach Upgrades	30	5						\$7,512					
15.2.3	Swim Lake Dam Repairs	15	15											
15.3.1	Clearwell	5	5						\$25,039					
15.4.1	Treatment Plant	20	15											
15.5.1	Water Mains	10	10											\$119,840
15.6.1	Septic Systems	15	15											
16.5.1	Generator	45	15											
18.1.1	Backhoe	25	5						\$62,599					
18.1.2	Truck	10	6							\$32,864				
18.3.1	Tractor Mower	20	10											\$6,391
20.1.1	Professional Services	15	15											
TOTAL EXPENDED BY YEAR				\$10,000	\$16,480	\$21,630			\$151,489	\$32,864				\$224,149
CARRY OVER RESERVES				\$268,553	\$277,627	\$309,870	\$349,254	\$414,729	\$485,398	\$407,079	\$449,463	\$530,046	\$616,981	\$710,681
ANNUAL RESERVE CONTRIB				\$16,357	\$45,800	\$48,090	\$50,495	\$53,019	\$55,670	\$58,454	\$61,376	\$64,445	\$67,667	\$71,051
RESERVE EXPENDITURES				\$10,000	\$16,480	\$21,630			\$151,489	\$32,864				\$224,149
ACCUMULATED RESERVES				\$274,910	\$306,947	\$336,330	\$399,749	\$467,748	\$389,579	\$432,668	\$510,839	\$594,491	\$684,649	\$557,583
INTEREST EARNED				\$2,717	\$2,923	\$12,924	\$14,980	\$17,650	\$17,500	\$16,795	\$19,206	\$22,491	\$26,033	\$25,365
YEAR-END BALANCE				\$277,627	\$309,870	\$349,254	\$414,729	\$485,398	\$407,079	\$449,463	\$530,046	\$616,981	\$710,681	\$582,949
				0-1	2-10	11-30								
INFLATION MULTIPLIER				1.03	1.05	1.05			1.25	1.31	1.38	1.45	1.52	1.60
INTEREST RATE MULTIPLIER				0.01	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

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## NOTES:

1. Year Zero carry over balance is the current actual reserve balance as reported to Reserve Consultants Ltd.
2. Year Zero reserve contribution is that estimated for the remainder of the year, following preparation of this report.

## LUMMI ISLAND

Reserve Consultants, Ltd.

## 30-YEAR SPREADSHEET ALLOWING FOR INFLATION

DATE: 31-May-13

#	COMPONENT NAME	REPAIR CYCLE	NEXT EXP.	11 2024	12 2025	13 2026	14 2027	15 2028	16 2029	17 2030	18 2031	19 2032	20 2033
2.6.1	Asphalt Pavement	10	2		\$35,233								
2.7.1	Chain Link Fence	30	20										\$18,240
2.8.1	Playground												
2.9.1	Dock Work	50	10										
2.9.1	Dock Pilings	50	20										\$260,276
6.2.1	Siding												
7.4.1	Roofing, Sloped												
7.4.2	Roofing, Flat	20	10										
8.3.1	Garage Doors	20	10										
12.1.1	Clubhouse	10	5					\$50,983					
12.1.2	Common Buildings	10	5					\$40,787					
15.1.1	Water Meters	20	17							\$112,418			
15.1.2	Valves	20	15					\$214,130					
15.2.1	Water Towers, Circulation System	30	1										
15.2.1	Water Towers, Repair	25	0										
15.2.2	Reservoir & Dam	30	15					\$203,933					
15.2.3	Swim Lake Dock & Beach Upgrades	30	5										
15.2.3	Swim Lake Dam Repairs	15	15					\$10,197					
15.3.1	Clearwell	5	5										
15.4.1	Treatment Plant	20	15					\$157,028					
15.5.1	Water Mains	10	10										\$195,207
15.6.1	Septic Systems	15	15					\$20,393					
16.5.1	Generator	45	15					\$24,472					
18.1.1	Backhoe	25	5										
18.1.2	Truck	10	6						\$53,532				
18.3.1	Tractor Mower	20	10										
20.1.1	Professional Services	15	15					\$203,933					
TOTAL EXPENDED BY YEAR					\$35,233			\$925,856	\$53,532	\$112,418			\$473,723
CARRY OVER RESERVES				\$582,949	\$682,362	\$753,619	\$867,659	\$990,455	\$178,195	\$227,839	\$224,262	\$340,306	\$466,346
ANNUAL RESERVE CONTRIB				\$74,603	\$78,334	\$82,250	\$86,363	\$90,681	\$95,215	\$99,976	\$104,974	\$110,223	\$115,734
RESERVE EXPENDITURES					\$35,233			\$925,856	\$53,532	\$112,418			\$473,723
ACCUMULATED RESERVES				\$657,552	\$725,463	\$835,869	\$954,022	\$155,281	\$219,878	\$215,397	\$329,236	\$450,529	\$108,357
INTEREST EARNED				\$24,810	\$28,156	\$31,790	\$36,434	\$22,915	\$7,961	\$8,865	\$11,070	\$15,817	\$11,494
YEAR-END BALANCE				\$682,362	\$753,619	\$867,659	\$990,455	\$178,195	\$227,839	\$224,262	\$340,306	\$466,346	\$119,852
				0-1	2-10	11-30							
INFLATION MULTIPLIER				1.03	1.05	1.05							
INTEREST RATE MULTIPLIER				0.01	0.04	0.04							

## NOTES:

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## LUMMI ISLAND

## Reserve Consultants, Ltd.

## 30-YEAR SPREADSHEET ALLOWING FOR INFLATION

DATE: 31-May-13

#	COMPONENT NAME	REPAIR CYCLE	NEXT EXP.	21 2034	22 2035	23 2036	24 2037	25 2038	26 2039	27 2040	28 2041	29 2042	30 2043
2.6.1	Asphalt Pavement	10	2		\$57,391								
2.7.1	Chain Link Fence	30	20										
2.8.1	Playground												
2.9.1	Dock Work	50	10										
2.9.1	Dock Pilings	50	20										
6.2.1	Siding												
7.4.1	Roofing, Sloped												
7.4.2	Roofing, Flat	20	10										\$94,705
8.3.1	Garage Doors	20	10										\$16,713
12.1.1	Clubhouse	10	5					\$83,046					
12.1.2	Common Buildings	10	5					\$66,437					
15.1.1	Water Meters	20	17										
15.1.2	Valves	20	15										
15.2.1	Water Towers, Circulation System	30	1										
15.2.1	Water Towers, Repair	25	0					\$33,219					
15.2.2	Reservoir & Dam	30	15										
15.2.3	Swim Lake Dock & Beach Upgrades	30	5										
15.2.3	Swim Lake Dam Repairs	15	15										\$21,198
15.3.1	Clearwell	5	5										
15.4.1	Treatment Plant	20	15										
15.5.1	Water Mains	10	10										\$317,971
15.6.1	Septic Systems	15	15										\$42,396
16.5.1	Generator	45	15										
18.1.1	Backhoe	25	5										\$211,981
18.1.2	Truck	10	6						\$87,199				
18.3.1	Tractor Mower	20	10										\$16,958
20.1.1	Professional Services	15	15										\$423,962
TOTAL EXPENDED BY YEAR					\$57,391			\$182,702	\$87,199				\$1,145,884
CARRY OVER RESERVES				\$119,852	\$248,597	\$330,151	\$480,014	\$642,704	\$632,720	\$727,283	\$922,481	\$1,133,792	\$1,362,277
ANNUAL RESERVE CONTRIB				\$121,521	\$127,597	\$133,977	\$140,676	\$147,710	\$155,095	\$162,850	\$170,992	\$179,542	\$188,519
RESERVE EXPENDITURES					\$57,391			\$182,702	\$87,199				\$1,145,884
ACCUMULATED RESERVES				\$241,373	\$318,803	\$464,128	\$620,690	\$607,711	\$700,616	\$890,133	\$1,093,473	\$1,313,334	\$404,911
INTEREST EARNED				\$7,224	\$11,348	\$15,886	\$22,014	\$25,008	\$26,667	\$32,348	\$40,319	\$48,943	\$35,344
YEAR-END BALANCE				\$248,597	\$330,151	\$480,014	\$642,704	\$632,720	\$727,283	\$922,481	\$1,133,792	\$1,362,277	\$440,255
				0-1	2-10	11-30							
INFLATION MULTIPLIER				1.03	1.05	1.05							
INTEREST RATE MULTIPLIER				0.01	0.04	0.04							

## NOTES:

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## **RESERVE COMPONENT INVENTORY FORMS**



*Reserve  
Consultants*  
Ltd.

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[www.reserveconsultants.net](http://www.reserveconsultants.net) PO Box 2068, Kirkland, WA. 98083-2068 206.523.3248 FAX 206.633.1521

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Asphalt Pavement

COMPONENT NUMBER: 2.6.1

DESCRIPTION: Asphalt Paving

LOCATION: Exterior

AGE: Varies

CONDITION: Varies

TYPICAL LIFE: 25 – 30 Yrs

REPAIR CYCLE: 10 Yrs

NEXT REPAIR: 2 Yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: LS**

We have included an allowance of **\$20,000** every 10 years beginning in year 2 (2015) for asphalt pavement repairs. Our allowance is intended to be drawn from as needed. The Association intends to make the majority of their minor asphalt repairs through their operating budget; our allowance is intended to cover the cost of significant repaving projects. The asphalt paving near the Associations clubhouse is in poor condition and should be replaced within the near future.

Repair As Needed:

**\$20,000**

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Chain Link Fence

COMPONENT NUMBER: 2.7.1

DESCRIPTION: Chain Link Fence

LOCATION: Exterior

AGE: Unknown

CONDITION: Good

TYPICAL LIFE: 30 yrs

REPAIR CYCLE: 30 yrs

NEXT REPAIR: 20 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 320**

UNIT TYPE: LF

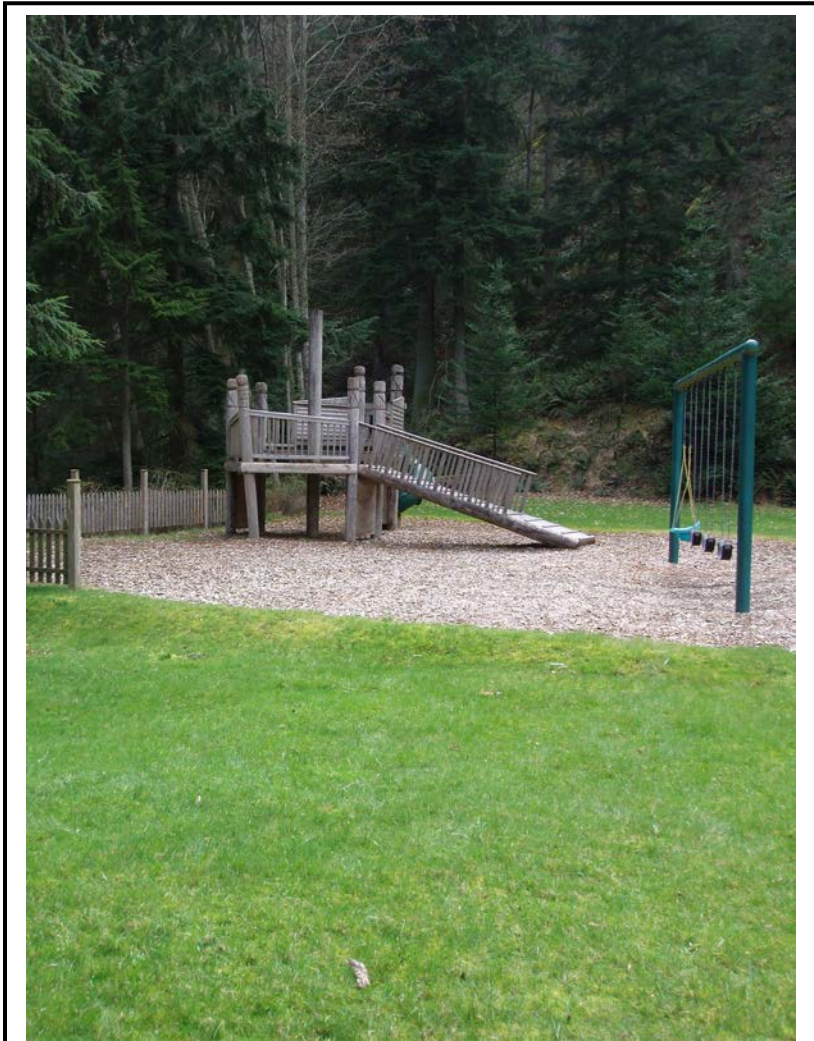
We have budgeted **\$7,008** in year 20 (2033) for replacing the Association's chain link fence that sections off their water supply pond.

Replace:

$$320 \text{ LF} \times \$20/\text{LF} \times 1.095 \text{ tax} = \underline{\underline{\$7,008}}$$



**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Playground

COMPONENT NUMBER: 2.8.1

DESCRIPTION: Playground Equipment

LOCATION: Exterior

AGE: \_\_\_\_\_ New

CONDITION: Good

TYPICAL LIFE: 30 – 35 yrs

REPAIR CYCLE: N/A

NEXT REPAIR: N/A

RESERVE FUNDING  
REQUIRED: **NO**

INSPECTED BY: BOB & KEVIN

[illegible]

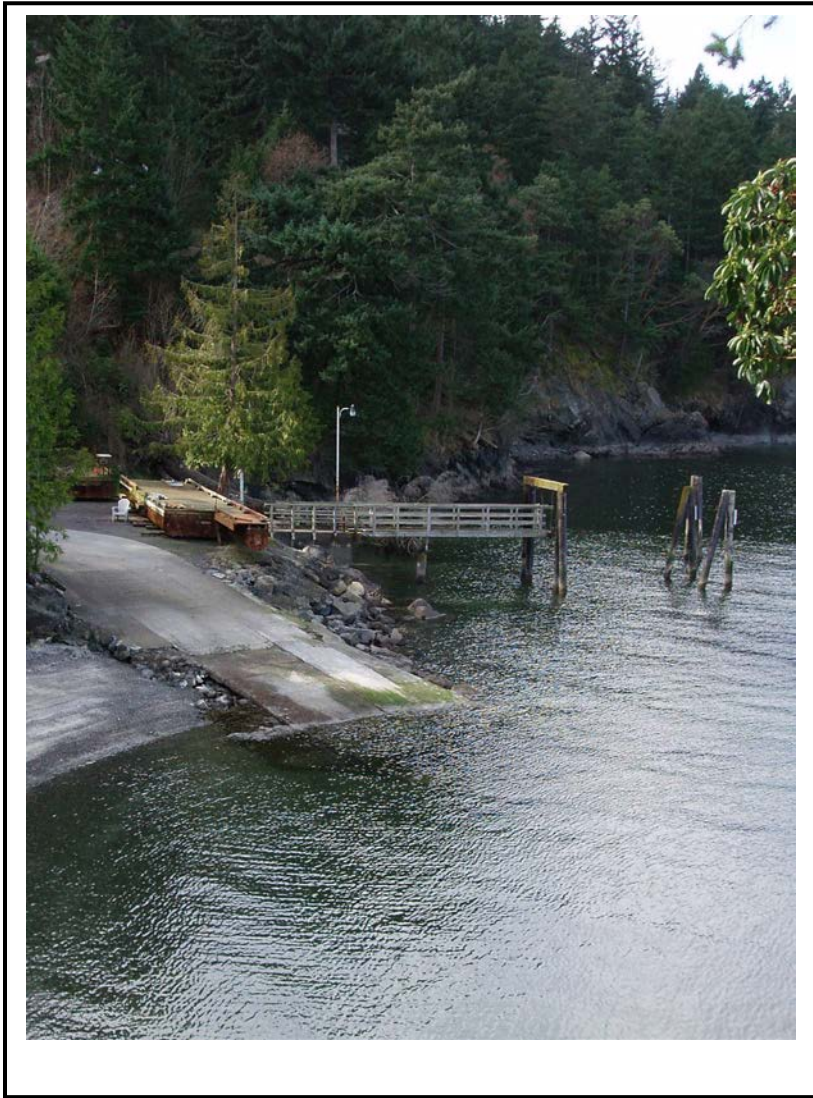
## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: EA**

We have not budgeted reserves for repair or replacement of the Association's playground equipment. The Association intends to make all necessary playground repairs out of their operating account.

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Docks

COMPONENT NUMBER: 2.9.1

DESCRIPTION: Community Dock

LOCATION: Waterfront

AGE: Unknown

CONDITION: Fair

TYPICAL LIFE: 50 yrs

REPAIR CYCLE: 50 yrs

NEXT REPAIR: 10 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: LS**

We have included **\$35,000** in year 10 (2023) for replacing the Association's two smaller docks and filling the steel flotation tubes of the Association's two larger docks with foam. The steel flotation tubes of the Association's two larger docks are currently hollow; over time corrosion of the steel will result in holes large enough to let water into the steel tubes. The least expensive way to retain the buoyancy of the steel tubes once they develop small holes is to fill the tubes with foam.

We have budgeted **\$100,000** in year 20 (2033) for replacing the Association's creosote wood dock pilings.

Year 10 Dock Work:  
**\$35,000**

Year 20 Piling Replacement:  
**\$100,000**

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Siding

COMPONENT NUMBER: 6.2.1

DESCRIPTION: Mixed Siding

LOCATION: Common Buildings

AGE: \_\_\_\_\_Varies

CONDITION: Varies

TYPICAL LIFE: 40 – 50 Yrs

REPAIR CYCLE: N/A

NEXT REPAIR: N/A

RESERVE FUNDING  
REQUIRED: **NO**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

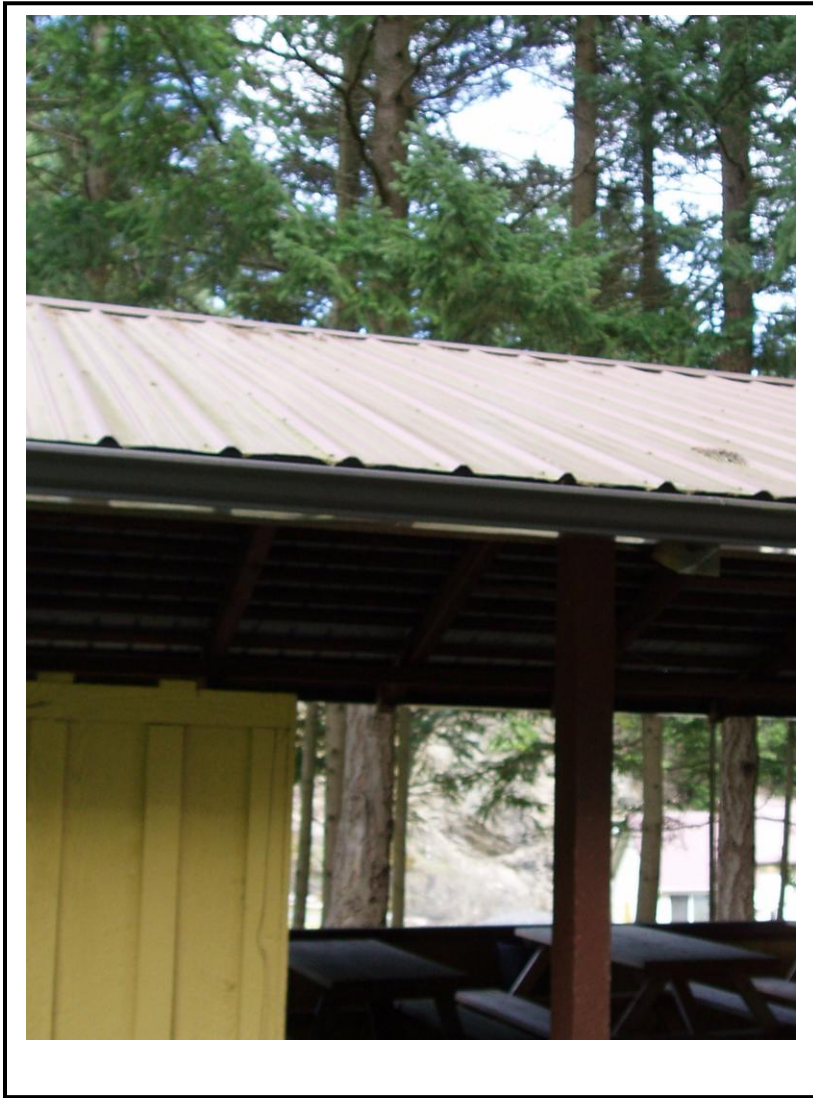
**QUANTITY: 1**

**UNIT TYPE: LS**

We have not budgeted reserves for repairing or replacing the Association's common building siding. The Association intends to repair and replace their siding as needed with funds from their operating account.



**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Roofing, Sloped

COMPONENT NUMBER: 7.4.1

DESCRIPTION: Metal

LOCATION: Exterior

AGE: \_\_\_\_\_ Newer

CONDITION: Good

TYPICAL LIFE: 50+ yrs

REPAIR CYCLE: N/A

NEXT REPAIR: N/A

RESERVE FUNDING  
REQUIRED: **NO**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

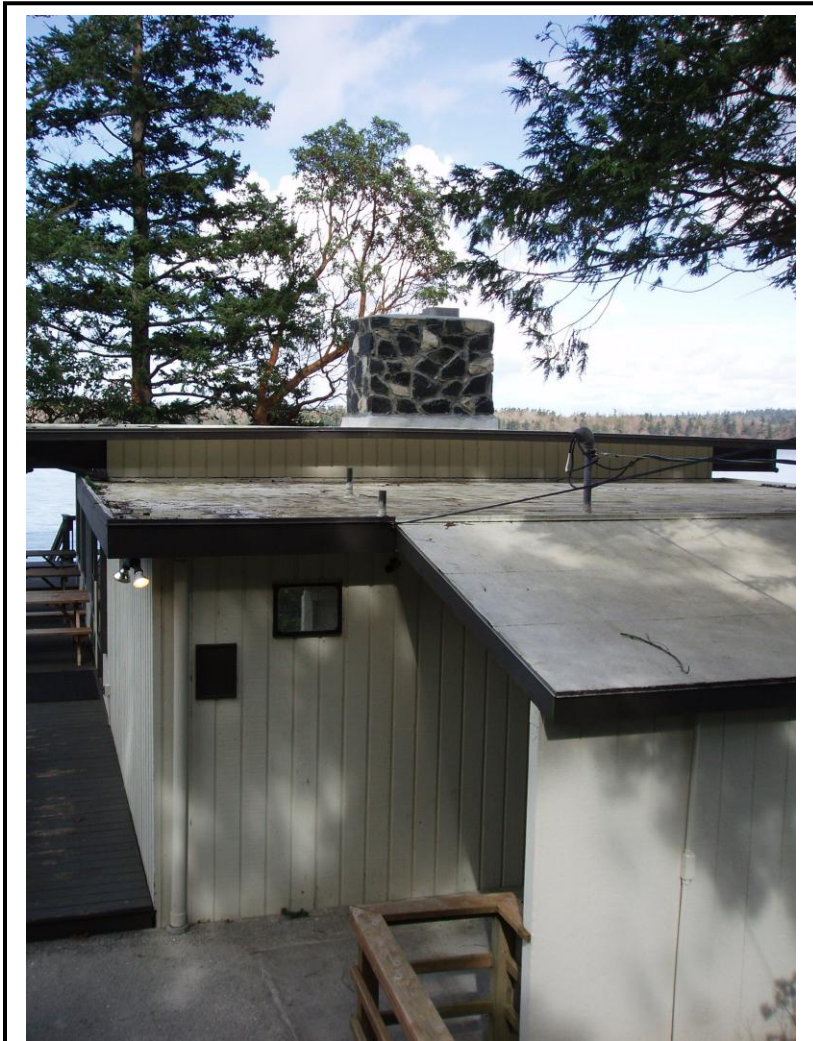
**QUANTITY: 1**

**UNIT TYPE: LS.**

The roofing of the Association's cabana, maintenance building and offices/treatment plant building is sloped metal. The sloped metal roofing is fairly new and expected to last for over 30 more years without needing to be replaced. The Association intends to make any necessary sloped metal roof repairs with funds from their operating budget.



**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Roofing, Flat

COMPONENT NUMBER: 7.4.2

DESCRIPTION: Flat Roof

LOCATION: Clubhouse

AGE: Unknown

CONDITION: Fair

TYPICAL LIFE: 20 yrs

REPAIR CYCLE: 20 yrs

NEXT REPAIR: 10 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 17**

**UNIT TYPE: SQ.**

We have budgeted **\$22,338** in years 10 and 30 (2023 & 2043) for replacing the flat roof of the Association's clubhouse. We recommend the Association install tapered insulation under the new roof in order to minimize standing water.

Replace:

$$17 \text{ SQ} \times \$1,200/\text{SQ} \times 1.095 \text{ tax} = \underline{\underline{\$22,338}}$$

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Garage Doors

COMPONENT NUMBER: 8.3.1

DESCRIPTION: Garage Doors

LOCATION: Maintenance Building

AGE: Unknown

CONDITION: Fair

TYPICAL LIFE: 20 yrs

REPAIR CYCLE: 20 yrs

NEXT REPAIR: 10 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 3**

**UNIT TYPE: EA.**

We have budgeted **\$3,942** in years 10 and 30 (2023 & 2043) for replacing the Association's maintenance building garage doors.

Replace:

3 doors x \$1,200/each x 1.095 tax = **\$3,942**

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Clubhouse

COMPONENT NUMBER: 12.1.1

DESCRIPTION: Clubhouse

LOCATION: Interior & Exterior

AGE: Unknown

CONDITION: Fair

TYPICAL LIFE: 100+ yrs

REPAIR CYCLE: 10 yrs

NEXT REPAIR: 5 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: LS**

We have included an allowance of **\$25,000** every 10 years beginning in year 5 (2018) for clubhouse repairs. Our repair allowance is intended to cover the cost of significant interior and exterior repairs. We understand that the Association makes minor repairs as needed to the clubhouse with funds from their operating budget. Our major repair allowance can be drawn from as needed.

Major Repair:

**\$25,000**



## LUMMI ISLAND SCENIC ESTATES – MARCH, 2013



**COMPONENT NAME:** Common Buildings

COMPONENT NUMBER: 12.1.2

DESCRIPTION: Common Buildings

LOCATION: Exterior

AGE: Unknown

CONDITION: Varies

TYPICAL LIFE: 100+ yrs

REPAIR CYCLE: 10 yrs

NEXT REPAIR: 10 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: LS.**

We have included allowance of **\$20,000** every 10 years beginning in year 5 (2018) for major repairs to the Association's cabana, offices/treatment plant building, maintenance building and water tower dugout. We understand that the Association makes minor repairs to their common buildings as needed with funds from their operating budget. The Association's cabana is currently in poor condition and should be renovated within the next 5 years. Our major repair allowance is intended to be drawn from as needed.

Major Repairs:  
**\$20,000**

**NO PHOTO  
AVAILABLE**

COMPONENT NAME:	Water Meters
COMPONENT NUMBER:	15.1.1
DESCRIPTION:	Water Meters
LOCATION:	Various
AGE:	Varies
CONDITION:	Fair
TYPICAL LIFE:	20 yrs
REPAIR CYCLE:	20 yrs
NEXT REPAIR:	17 yrs
RESERVE FUNDING REQUIRED:	<b>YES</b>
INSPECTED BY:	BOB & KEVIN

## REPLACEMENT/ REPAIR ESTIMATE

**UNIT TYPE: EA**

Water Meters:  
**\$50,000**



## LUMMI ISLAND SCENIC ESTATES – MARCH, 2013



**COMPONENT NAME:** Water Towers & Accesories

COMPONENT NUMBER: 15.2.1

DESCRIPTION: Concrete Water Towers

LOCATION: Hilltop

AGE: 30+ yrs

CONDITION: Good

TYPICAL LIFE: 100+ yrs

REPAIR CYCLE: 25 yrs

NEXT REPAIR: 0 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 2**

**UNIT TYPE: EA.**

We have budgeted **\$16,000** in year 1 (2014) for installing a circulation system in the Association's two water towers and cleaning them. The purpose of the circulation system will be to eliminate stratification of water sitting in the tanks for long periods of time. The work will need to be performed by a certified diver. The scope and cost of this project is based on information provided to us by the Association.

We have budgeted **\$15,000** in years 0 and 25 (2013 & 2038) for water tower accessory repair and replacement. The Association's water towers are over 25 years old and were built by Mt. Baker Silos. Per Mt. Baker Silos, approximately \$3,000 - \$5,000 needs to be spent per tower every 25 to 30 years to replace accessories such as ladders and catwalks and meters that may fail.

### Circulation System Install & Cleaning:

**\$12,000 circulation system + \$4,000 cleaning = \$16,000**

Repair:

$$2 \text{ towers} \times \$7,500/\text{each} = \$15,000$$



## A photograph of a calm lake surrounded by a dense forest of evergreen trees. The water is dark blue with ripples, and the shoreline is rocky in the foreground.

[illegible]

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**

**NO PHOTO  
AVAILABLE**

**COMPONENT NAME:** Swim Lake & Dam

COMPONENT NUMBER: 15.2.3

DESCRIPTION: Swim Lake & Dam

LOCATION: Exterior

AGE: Unknown

CONDITION: Fair

TYPICAL LIFE: 100+ yrs

REPAIR CYCLE: 30 &amp; 15 yrs

NEXT REPAIR: 5 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: LS.**

We have budgeted **\$6,000** in year 5 (2018) for upgrades to the Association's swim lake docks and beach area. Our budget can be drawn from as needed.

We have included an allowance of **\$5,000** every 15 years beginning in year 15 (2028) for making repairs to the swim lake earthen dam. Our allowance is intended to be drawn from as needed.

Docks & Beach Area:

**\$6,000**

Dam:

**\$5,000**



## LUMMI ISLAND SCENIC ESTATES – MARCH, 2013



**COMPONENT NAME:** Treatment Plant

COMPONENT NUMBER: 15.4.1

DESCRIPTION: Treatment Plant

LOCATION: Interior

AGE: Varies

CONDITION: Functional

TYPICAL LIFE: Varies

REPAIR CYCLE: 20 yrs

NEXT REPAIR: 15 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB &amp; KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: LS.**

We have budgeted **\$77,000** in year 15 (2028) for completely renovating the Association's treatment plant. Our budget is intended to cover the cost of replacing all of the Association's treatment plant equipment. Our budget can be drawn from as needed over time. Our budget is based on information provided to us by the Association.

Complete Renovation:  
**\$77,000**

COMPONENT NAME:	Water Mains
COMPONENT NUMBER:	15.5.1
DESCRIPTION:	Water Mains
LOCATION:	Underground
AGE:	Varies
CONDITION:	Varies
TYPICAL LIFE:	Varies w/ Material
REPAIR CYCLE:	10 yrs
NEXT REPAIR:	10 yrs
RESERVE FUNDING REQUIRED:	YES
INSPECTED BY:	BOB & KEVIN

**NO PHOTO  
AVAILABLE**

[illegible]

**QUANTITY: 17,849** **UNIT TYPE: LF.**

We have included an allowance of **\$75,000** every 10 years beginning in year 10 (2023) for water main repairs. The Association has approximately 17,849 lineal feet of water mains. The majority of the Association's water mains are asbestos concrete, the Association also has a smaller amount of C900 and PVC water mains. Our allowance is intended to be drawn from as needed.

Repair Allowance:

**\$75,000**

**NO PHOTO  
AVAILABLE**

COMPONENT NAME:	Septic Systems
COMPONENT NUMBER:	15.6.1
DESCRIPTION:	Septic Systems
LOCATION:	Cabana & Clubhouse
AGE:	Unknown
CONDITION:	Functional
TYPICAL LIFE:	30 - 40 yrs
REPAIR CYCLE:	15 yrs
NEXT REPAIR:	15 yrs
RESERVE FUNDING REQUIRED:	<b>YES</b>
INSPECTED BY:	BOB & KEVIN

[illegible]

<b>QUANTITY: 2</b>	<b>UNIT TYPE: EA</b>
<p>We have included an allowance of <b>\$10,000</b> every 15 years beginning in year 15 (2028) for major repair or replacement of the clubhouse and cabana septic systems. Our allowance is intended to be drawn from as needed.</p>	



**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Generator

COMPONENT NUMBER: 16.5.1

DESCRIPTION: Emergency Generator

LOCATION: Treatment Plant

AGE: 30 yrs

CONDITION: Functional

TYPICAL LIFE: 30 yrs

REPAIR CYCLE: 45 yrs

NEXT REPAIR: 15 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

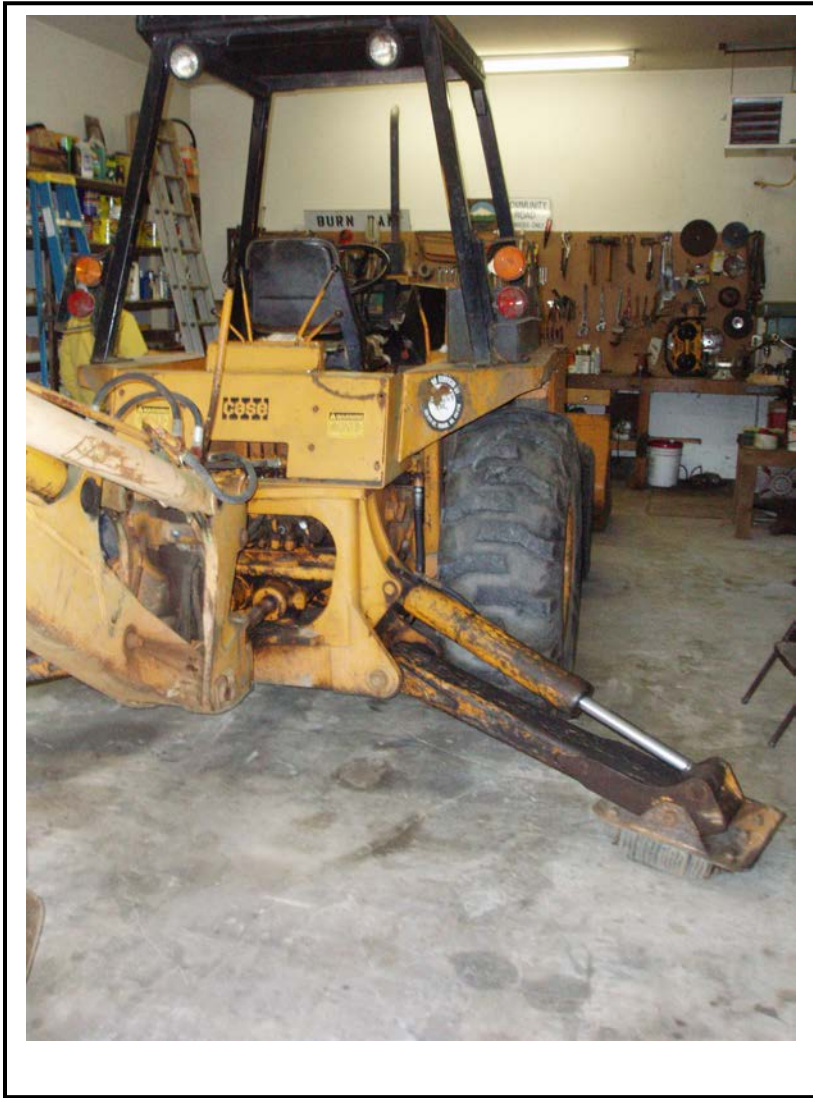
**QUANTITY: 1**

**UNIT TYPE: EA.**

We have budgeted **\$12,000** in year 15 (2028) for replacing the Association's emergency generator.

Replace:  
**\$12,000**

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Backhoe

COMPONENT NUMBER: 18.1.1

DESCRIPTION: Backhoe

LOCATION: Maintenance Building

AGE: Unknown

CONDITION: Poor

TYPICAL LIFE: 25 yrs

REPAIR CYCLE: 25 yrs

NEXT REPAIR: 5 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: EA.**

We have budgeted **\$50,000** in years 5 and 30 (2018 & 2043) for replacing the Association's backhoe.

Replace:  
**\$50,000**



**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Truck

COMPONENT NUMBER: 18.1.2

DESCRIPTION: Ford

LOCATION: Maintenance Building

AGE: 4 yrs

CONDITION: Good

TYPICAL LIFE: 10 yrs

REPAIR CYCLE: 10 yrs

NEXT REPAIR: 6 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: 1.**

We have budgeted **\$25,000** every 10 years starting in year 6 (2019) for replacing the Association's maintenance truck.

Replace:  
**\$25,000**

**LUMMI ISLAND SCENIC ESTATES – MARCH, 2013**



**COMPONENT NAME:** Tractor Mower

COMPONENT NUMBER: 18.1.3

DESCRIPTION: Tractor Mower

LOCATION: Maintenace Building

AGE: Unknown

CONDITION: Good

TYPICAL LIFE: 20 yrs

REPAIR CYCLE: 20 yrs

NEXT REPAIR: 10 yrs

RESERVE FUNDING  
REQUIRED: **YES**

INSPECTED BY: BOB & KEVIN

[illegible]

## REPLACEMENT/ REPAIR ESTIMATE

**QUANTITY: 1**

**UNIT TYPE: 1.**

We have budgeted **\$4,000** in years 10 and 30 (2023 & 2043) for replacing the Association's tractor mower.

Replace:  
**\$4,000**

COMPONENT NAME:	Professional Services
COMPONENT NUMBER:	20.1.1
DESCRIPTION:	Professional Services
LOCATION:	N/A
AGE:	N/A
CONDITION:	N/A
TYPICAL LIFE:	N/A
REPAIR CYCLE:	15 yrs
NEXT REPAIR:	15 yrs
RESERVE FUNDING REQUIRED:	<b>YES</b>
INSPECTED BY:	BOB & KEVIN

[illegible]

<b>QUANTITY: 1</b>	<b>UNIT TYPE: LS.</b>
<p>We have budgeted <b>\$100,000</b> every 15 years beginning in year 15 (2028) for professional services such as engineering, consulting and legal services. Our budget is intended to be drawn from as needed.</p> <p>Professional Services:  <u><b>\$100,000</b></u></p>	