

# LUMMI ISLAND SCENIC ESTATES

Whatcom County, Washington



#### **STANDARD**

### LEVEL 3 RESERVE STUDY UPDATE WITHOUT A SITE VISIT

With funding recommendations for the 2019 fiscal year

Issued July, 2018

Next Update: Level 2 by July, 2019

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#### **EXECUTIVE SUMMARY**

## Description

Lummi Island Scenic Estates is a 399-unit residential community located at 1211 Island Drive in Whatcom County, Washington. This Reserve Study meets the requirements of the Washington Homeowners' Association Act and the Washington Unified Common Interest Owner Act for a Level 3 Reserve Study update without a site visit, and was prepared by an independent Reserve Study Professional.

## Background

The community has 399 dues-paying lots in addition to five community buildings, a shared water supply system and a community marina. Lot owners are responsible for all improvements to their parcels. The community was established in about 1962.

The recommended annual contribution to reserves for 2019 is \$45,000.

#### **Financial Information for the Current 2018 Fiscal Year**

Reserve Account Balance on March 31, 2018	\$437,803
Annual Operating Budget	\$337,355
Component Inclusion Threshold (1% of the Operating Budget)	\$3,374
Annual Budgeted Contribution to Reserves (2018)	\$45,000
Remaining Contributions to Reserves for the Year	\$45,000
Planned or Implemented Special Assessment	None
Fully Funded Balance	\$378,746
Percent Funded at Time of Study	116%
Funding Status at Time of Study	Nominal Risk for Special Assessment

#### **Recommended Contribution to Reserves Starting in 2019**

2019 Annual Contribution to Reserves	\$45,000
Recommended Contribution per Month	\$3,750
Average Contribution per Unit per Year	\$113
Average Contribution per Unit Per Month	\$9
Recommended Special Assessment	None
2019 Baseline Funding Plan Contribution Rate	\$36,800
2019 Full Funding Plan Contribution Rate	\$47,800

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 contribution to reserves (\$45,000) and the percent funded above 74%. 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 also a requirement to have a current Reserve Study with a current 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.



## Five Years At A Glance 2019 Through 2023

The following reserve funded expenses are expected to occur in the next five years at Lummi Island Scenic Estates in constant dollar values.

Year 1 (2019) Anticipated Maintenance	<b>Estimated Cost</b>
11.1.2 Truck - replace	\$39,240
Total Estimated Expenses for Year 1 (2019)	\$39.240

Year 2 (2020) Anticipated Maintenance	Estimated Cost
2.9.3 Swim Lake Dock & Beach - upgrades	\$6,500
11.1.1 Backhoe - replace	\$58,040
15.3.1 Clearwell - replace	\$5,200
Total Estimated Expenses for Year 2 (2020)	\$69,740

Year 3 (2021) Anticipated Maintenance	Estimated Cost
None anticipated at this time	
Total Estimated Expenses for Year 3 (2021)	\$0

Year 4 (2022) Anticipated Maintenance	Estimated Cost
None anticipated at this time	
Total Estimated Expenses for Year 4 (2022)	<b>\$</b> 0

Year 5 (2023) Anticipated Maintenance	Estimated Cost
2.9.1 Dock Work - repair	\$15,500
12.1.1 Clubhouse - repair contingency	\$26,800
12.1.2 Common Buildings - repair contingency	\$21,500
15.1.2 Valves - replace	\$20,800
15.5.1 Water Mains - repair	\$87,920
Total Estimated Expenses for Year 5 (2023)	\$172,520



#### 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 within the next thirty years. A Reserve Study is intended to project availability of 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 the potential for special assessments. All costs and annual reserve fund 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 theoretical "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:

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

By comparing the actual current reserve fund balance, to the theoretical Fully Funded Balance a Percent Fully Funded is derived.

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 threshold reserve contribution funding plan.

The percent fully funded acts as a measuring tool to assess an association's ability to absorb unplanned expenses.



#### Three levels of Reserve Studies:

**Level 1:** 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 with a site visit.

**Level 2:** Thereafter at least every three years, an updated Reserve Study must be prepared, which again is based upon a visual site inspection conducted by a Reserve Study Professional. This is also known as a Level 2 update with a site visit.

**Level 3:** As noted earlier, the Association is required to update its Reserve Study every year. However, in two of the three years, the annual updates do not require a site visit. This is also known as a Level 3 update without a site visit.

This study is a <u>Level 3</u>
Reserve Study update without a site visit.

The next required update for Lummi Island Scenic Estates is a **Level 2** study by July, 2019

#### Our Approach to a Reserve Study

Reserve Consultants LLC 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 is 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 problem.

## Several sources were used in drafting this report. These include:

- Review of previous reserve study report(s);
- Input provided by association representatives;
- Review of a list of components the Association is responsible for;
- Generally accepted construction, maintenance, and repair guidelines

Many 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.



#### **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).

- (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 (fund) 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 of 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.

Effective July 1, 2018, the **Washington Unified Common Interest Act (WUCIOA)** has impacted common interest communities. Our reserve studies also comply with WUCIOA.

Section 331 lists the reserve study requirements:

- (2) A reserve study must include:
  - (a) A reserve component list, including any reserve component, the replacement cost of which exceeds one percent of the annual budget of the association, excluding contributions to the reserves for that reserve component. If one of these reserve components is not included in the reserve study, the study must explain the basis for its exclusion. The study must also include quantities and estimates for the useful life of each reserve component, the remaining useful life of each reserve component, and current major replacement costs for each reserve component;
  - (b) The date of the study and a disclosure as to whether the study meets the requirements of this section;
  - (c) The following level of reserve study performed:
    - a. Level I: Full reserve study funding analysis and plan;
    - b. Level II: Update with visual site inspection; or
    - c. Level III: Update with no visual site inspection;
  - (d) The association's reserve account balance;
  - (e) The percentage of the fully funded balance to which the reserve account is funded;
  - (f) Special assessments already implemented or planned;





- (g) Interest and inflation assumptions;
- (h) Current reserve account contribution rates for a full funding plan and a baseline funding plan;
- (i) A recommended reserve account contribution rate for a full funding plan to achieve one hundred percent fully funded reserves by the end of the thirty-year study period, a recommended reserve account contribution rate for a baseline funding plan to maintain the reserve account balance above zero throughout the thirty-year study period without special assessments, and a reserve account contribution rate recommended by the reserve study professional:
- (j) A projected reserve account balance for thirty years based on each funding plan presented in the reserve study;
- (k) A disclosure on whether the reserve study was prepared with the assistance of a reserve study professional, and whether the reserve study professional was independent; and
- (I) A statement of the amount of any current deficit or surplus in reserve funding expressed on a dollar per unit basis. The amount is calculated by subtracting the association's reserve account balance as of the date of the study from the fully funded balance, and then multiplying the result by the fraction or percentage of the common expenses of the association allocable to each unit; except that if the fraction or percentage of the common expenses of the association allocable vary by unit, the association must calculate any current deficit or surplus in a manner that reflects the variation.
- (3) A reserve study must also include the following disclosure:

"This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require the association to (1) defer major maintenance, repair, or replacement, (2) increase future reserve contributions, (3) borrow funds to pay for major maintenance, repair, or replacement, or (4) impose special assessments for the cost of major maintenance, repair, or replacement."

Furthermore, Section 326 states the budget must include:

- (d) the current amount of regular assessments budgeted for contribution to the reserve account:
- (e) A statement of whether the association has a reserve study that meets the requirements of section 331 of this act and, if so, the extent to which the budget meets or deviates from the recommendations of that reserve study; and
- (f) The current deficiency or surplus in reserve funding expressed on a per unit basis.

Section 326 requirements are covered by the Supplemental Budget Information disclosure that is prepared with each reserve study when the Association is ready to ratify the budget.



#### **Limitations and Assumptions of a Reserve Study**

This Reserve Study is not a report on the condition of the assets maintained by Lummi Island Scenic Estates, or a detailed report of necessary maintenance to the assets. 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 and the Washington Common Interest Ownership Act (WUCIOA).

The component list is based on information provided by Lummi Island Scenic Estates. Reserve Consultants LLC does not provide legal interpretations of governing documents or auditing services on account information provided.

The observations made by Reserve Consultants LLC 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 Lummi Island Scenic Estates. 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 assets will be maintained to keep a good level of appearance, with a special emphasis on retaining the original appearance of the assets to the greatest possible extent. The analysis also assumes that Lummi Island Scenic Estates will replace materials as they are required with good quality materials, installed by qualified, licensed, contractors. We further assume that the assets 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 fund 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.



## **Inflation and Interest Rate Projections**

When making estimates on the future inflation and interest rates, we use a staggered approach to more accurately reflect future economic projections.

For inflation, we use the construction industry inflation rates published by RS Means, which differ from the consumer inflation index. The average annual construction inflation increase since 1966 is 4.16%. We do not apply inflation to the annual reserve contribution in Year 0. Likewise, we do not apply inflation to the recommended reserve contribution in Year 1 since this is the first year at the recommended contribution rate. Inflation applied to the components on the inflated spreadsheet is compounded annually; the values are listed for each year at the bottom of the inflated spreadsheet.

For interest rates, we analyze the historical data provided by the Board of Governors of the Federal Reserve. The average annual interest rate since 1987 is 3.44%. The interest for associations is typically lower than average due to conservative investing options that are usually employed by associations. Interest is applied to Year 0 only in the constant spreadsheet so that the starting reserve fund balance in Year 1 is the same for both the constant and inflated spreadsheets, as illustrated on the following page.

#### Inflation and Interest Rate Projections for Lummi Island Scenic Estates

Years Applied	Contribution Inflation	Inflation	Interest
Year 0 (2018) through Year 1 (2019)	0%	3%	2%
Year 2 (2020) through Year 10 (2028)	3%	3%	2%
Year 11 (2029) through Year 30 (2048)	4%	4%	3%



## Starting Reserve Fund Balance for Year 1 (2019)

The starting reserve fund balance for 2019 has been estimated by combining the following figures that were provided by an association representative:

	\$437,803	reserve fund balance as of March 31, 2018
-	(\$31,766)	anticipated remaining maintenance expenses in 2018
+	\$0	planned special assessment in 2018
+	\$45,000	remaining reserve contributions for 2018
+	\$6,666	projected interest on the 2018 reserve fund balance
	\$457,703	estimated beginning balance for fiscal year 2019

Below is a summary of the anticipated remaining maintenance expenses for 2018.

Component Maintenance	Estimated Cost
2.6.1 Asphalt Pavement - repair	\$13,066
11.1.3 Tractor Mower - replace	\$6,000
11.1.4 Road Sweeper - replace	\$4,700
15.2.1 Water Towers - circulation system	\$8,000

Total Estimated Costs for 2018: \$31,766

The actual or projected total reserve fund balance presented in the Reserve Study is based on information provided to RCL and was not audited.



#### **ASSOCIATION OVERVIEW**

Lummi Island Scenic Estates is a residential community located in Whatcom County, Washington. The community has 399 dues-paying lots in addition to common amenities. Lot owners are responsible for all improvements to their parcels. The community was established in 1962.

The common amenities include asphalt roads, a water supply reservoir and dam, and a swim lake with docks. There are five community buildings: a water treatment plant with offices, a supply shed, a maintenance building with overhead garage doors, a Cabana with a covered picnic patio and restrooms, as well as a waterfront Clubhouse with parking areas and a driveway that provides access the community marina.







#### COMPONENTS INCLUDED IN THE RESERVE STUDY

Reserve studies for homeowners' associations are required to include any reserve component that would cost more than one percent of the annual budget for major maintenance, repair or replacement (RCW 64.38.070). While the law defines the inclusion threshold to be 1% of the operating budget, or \$3,374, components valued less than the legal threshold may be included to better capture reserve funding for Lummi Island Scenic Estates.

#### **Component Funding Excluded from the Reserve Study**

#### **Operating Budget**

The following components may qualify for inclusion within the Reserve Study, but have been excluded from the budget because they are maintained with funds from the operating budget:

- play equipment
- reserve study updates

The swim lake dam has been excluded from the reserve budget because it does not require maintenance.

Not all components that are the individual unit owners' responsibility are described in the report. The costs for items maintained by individual unit owners are not included in the budget for the reserve account contribution recommendations. Individual owners are financially responsible for repairs for elements that are not the responsibility of the Association to maintain. We recommend that associations establish policies and processes regarding the maintenance on these "owner responsibility" items.

#### **Adjustments to Component Reserve Recommendations**

This reserve study provides updated information on the components from prior reserve studies. All cost estimates were adjusted to reflect the actual inflation rate for construction work in the Pacific Northwest, and costs actually experienced by Lummi Island Scenic Estates or others in the area. To complete the report, we were provided with a record of recent expenditures on reserve components.

We use those figures, where applicable, for updating component cost projections, applying an appropriate inflation factor. Where updated figures from actual work performed are not available, cost projections from the previous reserve study are updated for inflation and rounded to the nearest \$10, using the RS Means 2017 to 2018 inflation figure of 2.06% for construction work.



**RESERVE COMPONENT SUMMARY** 



2.6.1 Asphalt Pavement - repair

Maintenance Cycle: 10 years

Quantity: 1 Lump Sum

Next Maintenance: Year 10 (2028)

Unit Cost: \$21,500.00 / LS

**Estimate:** \$21,500

The Association has completed pavement repair project of the clubhouse parking area in 2018 at a cost of \$6,087 that has not yet been paid. Another repair project is scheduled for October 2018 at an anticipated cost of \$6,979. The requested funds have been added to the current year's budget. The asphalt overlay component added in the 2016 reserve study for common roads and parking areas has been removed at the request of the Association.

#### 2.7.1 Chain Link Fence - replace

Maintenance Cycle: 30 years

Quantity: 320 Linear Feet

Next Maintenance: Year 15 (2033)

Unit Cost: \$23.47 / LF

**Estimate:** 320 LF X 100% X \$23.47/LF = \$7,510 + tax = \$8,150

The budget maintains funds to repair and/or replace sections of the chain-link fence around the water supply pond. The Association completes ongoing minor repairs with funds from the operating budget.

### 2.9.1 Dock Work - repair

Maintenance Cycle: 15 years

Next Maintenance: Year 5 (2023)

Quantity: 1 Lump Sum

Unit Cost: \$15,500.00 / LS

**Estimate:** \$15,500

The Association reported that repairs of the marina dock decking and structural beams were completed in March 2015 at a cost of \$12,989. The budget provides funds to perform periodic maintenance of the dock to keep the structure safe.

## 2.9.2 Dock Pilings - replace

Maintenance Cycle: 50 years

Quantity: 1 Lump Sum

Next Maintenance: Year 15 (2033)

Unit Cost: \$106,500.00 / LS

**Estimate:** \$106,500

The reserve budget saves for replacing the creosote wood dock pilings with metal pilings. The budget was updated for inflation. No other changes are noted for this component.



#### 2.9.3 Swim Lake Dock & Beach - upgrades

Maintenance Cycle: 30 yearsNext Maintenance: Year 2 (2020)

**Quantity:** 1 Lump Sum **Unit Cost:** \$6,500.00 / LS **Estimate:** \$6,500

The swim lake docks are planned to be repaired in the near future. The Association has requested for the next maintenance year to be scheduled in Year 2. The component number has been updated from 10.1.1.

#### 7.4.1 Sloped Metal Roofs - replace

Maintenance Cycle: 40 yearsNext Maintenance: Year 12 (2030)

**Quantity:** 33 Roofing Squares **Unit Cost:** \$796.06 / SQ

**Estimate:** 33 SQ X 100% X \$796.06/SQ = \$26,270 + tax = \$28,500

We budget funds to replace the metal roofing on the common buildings, including the cabana, the office/treatment plant building, the supply shed, and the maintenance building.

#### 7.4.2 Low Sloped Roofs - replace

Maintenance Cycle: 20 years Next Maintenance: Year 18 (2036)

**Quantity:** 17 Roofing Squares **Unit Cost:** \$1,107.65 / SQ

**Estimate:** 17 SQ X 100% X \$1,107.65/SQ = \$18,830 + tax = \$20,430

The Clubhouse roof was replaced in 2016 at a cost of \$18,213. The budgeted funds were updated in the 2016 to reflect the experienced cost of the project.

## 8.3.1 Garage Doors - replace

Maintenance Cycle: 20 years Next Maintenance: Year 20 (2038)

**Quantity:** 3 Each **Unit Cost:** \$1,410.00 / EA

**Estimate:** 3 EA X 100% X \$1,410.00/EA = \$4,230 + tax = \$4,590

In 2017, the overhead garage doors of the maintenance shed were replaced at a cost of \$4,265. The budget provides funds to replace three overhead garage doors per maintenance cycle. The next maintenance year was reset to a full cycle.



#### 11.1.1 Backhoe - replace

Maintenance Cycle: 25 years

Next Maintenance: Year 2 (2020)

The Association reported that they regularly repair the backhoe. Substantial repairs were made in 2016 with funds from the operating budget. The reserve budget is intended to cover the costs of replacing the machine when repairs are no longer sufficient to keep it operational.

#### 11.1.2 Truck - replace

Maintenance Cycle: 10 years Next Maintenance: Year 1 (2019)

Quantity: 1 Each Unit Cost:

**Estimate:** 1 EA X 100% X \$36,170.00/EA = \$36,170 + tax = \$39,240 \$36,170.00 / EA

The reserves funds are intended to cover the costs of replacing the maintenance truck with a comparable model, such as a Ford F150, at the time the current truck has reached the end of useful life.

### 11.1.3 Tractor Mower - replace

Maintenance Cycle: 20 years

Quantity: 1 Each

Next Maintenance: Year 0 (2018)

Unit Cost: \$5,530.00 / EA

Estimate: 1 EA X 100% X \$5,530.00/EA = \$5,530 + tax = \$6,000

The Association reported plans to replace the tractor mower in the current year. The budgeted funds have been scheduled accordingly.

## 11.1.4 Road Sweeper - replace

Maintenance Cycle: 20 years

Quantity: 1 Lump Sum

Next Maintenance: Year 0 (2018)

Unit Cost: \$4,700.00 / LS

**Estimate:** \$4,700

According to the Association, the sweeper needs to be replaced in the near future. The reserves provide funds for replacement in the current year.



#### 12.1.1 Clubhouse - repair contingency

Maintenance Cycle: 10 years Next Maintenance: Year 5 (2023)

Quantity: 1 Lump Sum
Unit Cost: \$26,800.00 / LS

**Estimate:** \$26,800

According to the Association representative, minor repairs are being completed on an ongoing basis and paid with funds from the operating budget, which included pressure washing, cleaning gutters, painting the clubhouse deck. The chimney was repaired in 2017 at a cost of \$3,011. The next maintenance year has been extended 5 years since the Association has no plans for major repairs in the near future. The reserve budget saves funds for major repair and upgrades to the interior and exterior of the building, including siding and decking repairs. The paint on the siding and trim is nearing the end of its useful life and touched up painting will soon become insufficient to protect the siding material properly. A complete painting of the exterior siding is recommended to help reduce damage from moisture and prevent a costly siding replacement project.

#### 12.1.2 Common Buildings - repair contingency

Maintenance Cycle: 10 years

Next Maintenance: Year 5 (2023)

Quantity: 1 Lump Sum

Unit Cost: \$21,500.00 / LS

**Estimate:** \$21,500

The Association reported ongoing minor repairs are being completed with funds from the operation budget, therefore the next maintenance year has been pushed out 5 years. The repair contingency is intended for major repairs and upgrades of the interior and exterior of the Cabana, the offices/treatment plant building, the supply shed, and the maintenance building. Funds may be drawn from to meet the needs of the Association.

#### 15.1.1 Water Meters - replace

Maintenance Cycle: 20 years

Quantity: 218 Each

Next Maintenance: Year 12 (2030)

Unit Cost: \$245.83 / EA

**Estimate:** 218 EA X 100% X \$245.83/EA = \$53,591 + tax = \$58,150

The budgeted funds to replace water meters and the water meter computer are intended to be drawn from as needed to keep the system functional.

#### 15.1.2 Valves - replace

Maintenance Cycle: 5 years

Next Maintenance: Year 5 (2023)

Quantity: 1 Lump Sum

Unit Cost: \$20,800.00 / LS

**Estimate:** \$20,800

The Association has plans to replace a pressure reducer at the vault just below the swim lake in the current year for an estimated amount of \$8,000. The funds have been added to the budget for the current year. The repair cycle and budgeted amount remains the same as the previous reserve study. It is our understanding that the valves throughout the Association's water system are regularly exercised. This component continues to provide funds for valve replacement and for rebuilding the valve vault as needed.



#### 15.2.1 Water Towers - circulation system

Maintenance Cycle: 30 years Next Maintenance: Year 28 (2046)

**Quantity:** 2 Each **Unit Cost:** \$10,630.00 / EA

**Estimate:** 2 EA X 100% X \$10,630.00/EA = \$21,260 + tax = \$23,070

The Association installed 2 new mixers for circulation systems of the water towers in 2016 at a cost of \$23,707. The budget maintenance cycle has been reset accordingly.

#### 15.2.2 Water Towers - repair

Maintenance Cycle: 50 years

Next Maintenance: Year 48 (2066)

Quantity: 2 Each

Unit Cost: \$6,755.00 / EA

**Estimate:** 2 EA X 100% X \$6,755.00/EA = \$13,510 + tax = \$14,660

The water towers were repaired in 2013 at a cost of \$12,900 with highly durable materials. We include the reserve budget to repair catwalks, railings, and sight gauges when they have reached the approximate end of useful life.

#### 15.2.3 Reservoir & Dam - maintenance

Maintenance Cycle: 10 years

Rext Maintenance: Year 8 (2026)

Quantity: 1 Lump Sum

Unit Cost: \$20,800.00 / LS

**Estimate:** \$20,800

The Association reported in 2016 that they are maintaining the dam properly and in compliance with the WA Department of Ecology. An abutment was installed around 2005. The maintenance budget provides funds to keep the reservoir and dam functioning properly in accordance with state regulations.

## 15.2.4 Mixer Unit & Storage Tanks - maintenance

Maintenance Cycle: 20 years

Next Maintenance: Year 19 (2037)

Quantity: 1 Lump Sum

Unit Cost: \$25,900.00 / LS

**Estimate:** \$25,900

In 2016, the storage tank mixer was replaced at a cost of \$25,000. The budget provides funds to maintain the storage tanks and mixer unit to keep the system functioning properly at all times.



15.3.1 Clearwell - replace

Maintenance Cycle: 5 years Next Maintenance: Year 2 (2020)

**Quantity:** 1 Lump Sum **Unit Cost:** \$5,200.00 / LS **Estimate:** \$5,200

At the request of the Association the next maintenance year has been extended to Year 2. The clearwell is equipped with a simplified dechlorination system to maintain proper chlorine levels of the discharge water into Aiston Creek.

15.4.1 Treatment Plant - repair

Maintenance Cycle: 20 years

Quantity: 1 Lump Sum

Next Maintenance: Year 10 (2028)

Unit Cost: \$82,600.00 / LS

Estimate: \$82,600

The reserve budget provides funds to replace the treatment plant equipment. No further changes were noted.

#### 15.5.1 Water Mains - repair

Maintenance Cycle: 10 years Next Maintenance: Year 5 (2023)

**Quantity:** 17,849 Linear Feet **Unit Cost:** \$4.54 / LF

**Estimate:** 17,849 LF X 100% X \$4.54/LF = \$81,034 + tax = \$87,920

The Association reported regular maintenance of the water mains.

## 15.6.1 Septic Systems - replace

Maintenance Cycle: 15 years

Next Maintenance: Year 10 (2028)

**Quantity:** 2 Each **Unit Cost:** \$11,205.00 / EA

**Estimate:** 2 EA X 100% X \$11,205.00/EA = \$22,410 + tax = \$24,310

We continue to budget for funds of replacement or major repairs of the Clubhouse and Cabana septic systems.



#### 16.5.1 Generator - replace

Maintenance Cycle: 45 years

Quantity: 1 Each

Next Maintenance: Year 10 (2028)

Unit Cost: \$12,850.00 / EA

**Estimate:** 1 EA X 100% X \$12,850.00/EA = \$12,850 + tax = \$13,940

According to the Association, the generator is frequently tested and maintained. We continue to budget for a replacement of this equipment.



#### FINANCIAL ANALYSIS & RESERVE CONTRIBUTION RECOMMENDATIONS

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.

Using an average unit value of \$320,000, the average contribution per unit per year as a percentage of the average unit value at Lummi Island Scenic Estates is 0.04%. Typically, condominium associations in the Puget Sound area need to set aside from 1/2% to 1% of their average unit value, homeowners' associations need to put aside 1/3% to 1/2% and single family homeowners should put aside 1% to 2% each year.

Lummi Island Scenic Estates should determine the best reserve funding level for their association based on their maintenance needs and risk aversion.

Recommended 2019 Contribution	\$45,000
Recommended Contribution per Month	\$3,750
Average Contribution per Unit per Year	\$113
Average Contribution per Unit Per Month	\$9

For budgeting purposes, we recommend that Lummi Island Scenic Estates set the contribution rate at \$45,000 for reserves beginning in 2019. The annual reserve contribution 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 contribution to reserves at all times during the study period while also maintaining the percent funded above 74%, so that no special assessments will be required.

#### **FUNDING PLANS**

## THRESHOLD FUNDING

\$45,000

A starting annual contribution of \$45,000 fulfills the definition of a Threshold Funding plan which provides funding as expenses are incurred over time, while always maintaining a minimum reserve fund balance of one year's contribution to reserves and the percent funded above 74%. This is our recommended funding plan.

## **BASELINE FUNDING** \$36.800

An alternative strategy
Lummi Island Scenic Estates
could employ is Baseline
Funding. This provides for
necessary expenditures
without maintaining a
minimum reserve fund
balance. To pursue such a
strategy, the recommended
Baseline Funding
contribution rate would be
\$36,800.

#### **FULLY FUNDING**

\$47.800

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 \$47,800.



## Comparison of Funding Plans and Fully Funded Balance Over 30 Years

Below is a line graph which depicts the projected fiscal year end reserve balance for:

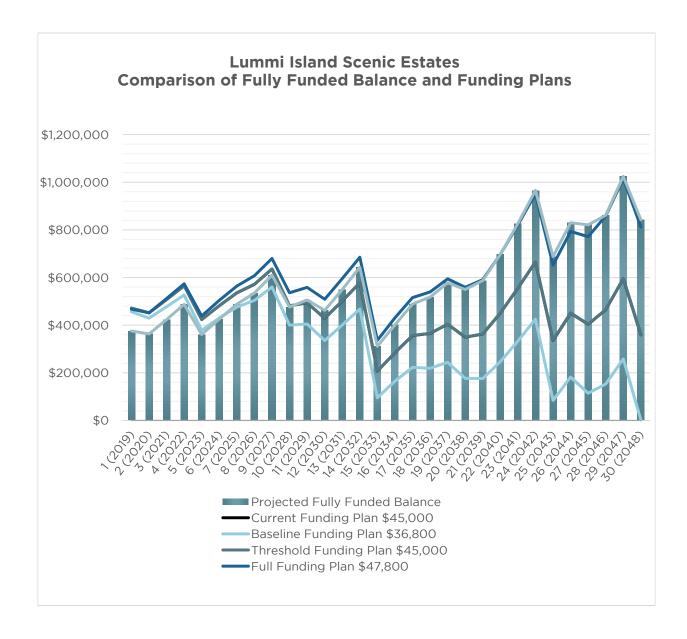
\$45,000 Budgeted Annual Contribution

\$36,800 Baseline Funding Plan

\$45,000 Recommended Funding Plan

\$47,800 Full Funding Plan

The bar graph represents the projected fully funded balance each year for the next 30 years.





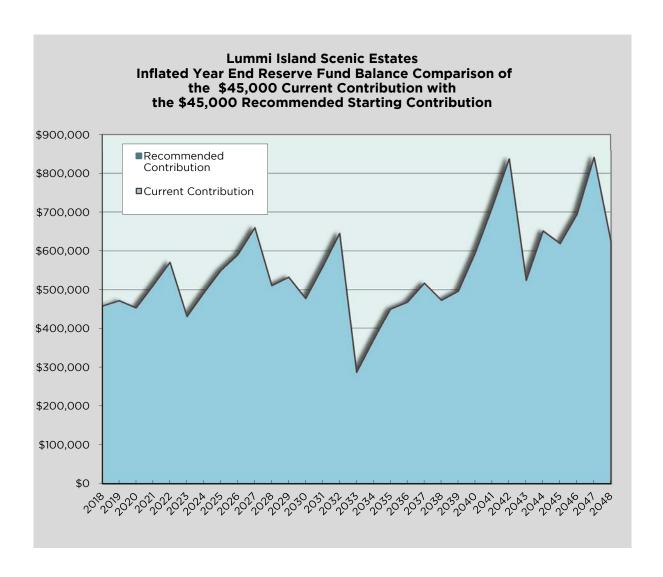
## **Projected Reserve Account Balance for Funding Plans Over 30 Years**

Per Section 331 (j) of WUCIOA, the projected reserve account balance for each of the funding plans over the next 30 years is provided.

Fiscal Year End	Current Funding Plan \$45,000	Threshold Funding Plan \$45,000	Baseline Funding Plan \$36,800	Full Funding Plan \$47,800
1 (2019)	\$471,486	\$471,486	\$456,308	\$467,308
2 (2020)	\$452,084	\$452,084	\$429,387	\$451,827
3 (2021)	\$507,944	\$507,944	\$477,377	\$511,822
4 (2022)	\$565,866	\$565,866	\$526,747	\$573,784
5 (2023)	\$423,919	\$423,919	\$378,300	\$438,539
6 (2024)	\$482,124	\$482,124	\$430,113	\$504,185
7 (2025)	\$536,052	\$536,052	\$475,835	\$564,395
8 (2026)	\$571,952	\$571,952	\$503,886	\$607,615
9 (2027)	\$636,252	\$636,252	\$560,392	\$679,995
10 (2028)	\$481,485	\$481,485	\$399,890	\$536,097
11 (2029)	\$494,104	\$494,104	\$404,691	\$558,406
12 (2030)	\$429,507	\$429,507	\$335,328	\$508,954
13 (2031)	\$501,996	\$501,996	\$400,623	\$595,369
14 (2032)	\$578,214	\$578,214	\$468,003	\$685,140
15 (2033)	\$207,457	\$207,457	\$95,417	\$336,278
16 (2034)	\$284,862	\$284,862	\$164,821	\$430,807
17 (2035)	\$357,066	\$357,066	\$222,843	\$515,423
18 (2036)	\$365,807	\$365,807	\$218,600	\$539,316
19 (2037)	\$404,579	\$404,579	\$244,109	\$594,580
20 (2038)	\$349,979	\$349,979	\$176,825	\$558,750
21 (2039)	\$363,216	\$363,216	\$175,979	\$591,138
22 (2040)	\$451,312	\$451,312	\$247,054	\$697,314
23 (2041)	\$555,847	\$555,847	\$333,429	\$820,751
24 (2042)	\$665,859	\$665,859	\$425,381	\$951,818
25 (2043)	\$336,130	\$336,130	\$84,492	\$652,197
26 (2044)	\$451,144	\$451,144	\$182,245	\$793,476
27 (2045)	\$404,247	\$404,247	\$114,343	\$771,464
28 (2046)	\$465,506	\$465,506	\$153,316	\$858,807
29 (2047)	\$596,191	\$596,191	\$258,560	\$1,015,018
30 (2048)	\$360,478	\$360,478	\$2,216	\$812,363



Below is a graph illustrating the projected year end reserve fund balance using both the current (2018) budgeted annual contribution and the recommended starting (2019) contribution. Since both contribution rates are the same, they cover one another in the chart.



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.



#### **Five Year Funding Plan Comparison**

Below is a comparison of the fully funded balance and year end reserve fund balance using the budgeted reserve funding for the current 2018 fiscal year and the three funding plans presented in the report. The calculations include inflated values, interest and special assessments (if applicable) through Year 5 (2023).

# Lummi Island Scenic Estates Five Year Funding Plan Comparison

Including Inflated Values, Interest and Special Assessments

#### \$45,000 Current Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2019)	\$45,000	\$0	\$471,486	126%	Fully Funded
2 (2020)	\$46,350	<b>\$</b> O	\$453,002	125%	Fully Funded
3 (2021)	\$47,741	<b>\$</b> O	\$510,280	120%	Fully Funded
4 (2022	) \$49,173	<b>\$</b> O	\$570,150	117%	Fully Funded
5 (2023)	\$50,648	<b>\$</b> O	\$430,710	119%	Fully Funded

#### \$36,800 Baseline Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2019)	\$36,800	<b>\$</b> O	\$465,471	124%	Fully Funded
2 (2020)	\$37,904	<b>\$</b> O	\$438,336	121%	Fully Funded
3 (2021)	\$39,041	<b>\$</b> O	\$486,534	115%	Fully Funded
4 (2022)	\$40,212	\$O	\$536,879	110%	Fully Funded
5 (2023)	\$41,419	<b>\$</b> O	\$387,452	107%	Fully Funded

#### \$45,000 Recommended (Threshold) Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2019)	\$45,000	\$0	\$471,486	126%	Fully Funded
2 (2020)	\$46,350	<b>\$</b> O	\$453,002	125%	Fully Funded
3 (2021)	\$47,741	<b>\$</b> O	\$510,280	120%	Fully Funded
4 (2022)	\$49,173	<b>\$</b> O	\$570,150	117%	Fully Funded
5 (2023)	\$50,648	\$O	\$430,710	119%	Fully Funded

#### \$47,800 Full Funding Plan

Year	Annual Reserve Contribution	Special Assessment	Year End Reserve Balance	% Funded	Funding Status
1 (2019)	\$47,800	\$0	\$476,581	127%	Fully Funded
2 (2020)	\$49,234	\$0	\$461,111	127%	Fully Funded
3 (2021)	\$50,711	<b>\$</b> O	\$521,552	123%	Fully Funded
4 (2022)	\$52,232	\$0	\$584,738	120%	Fully Funded



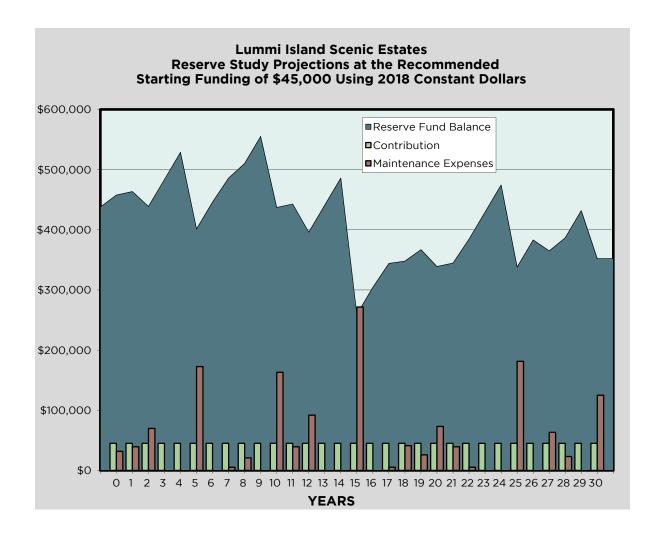
### **Reserve Study Projections using Constant Dollar Values**

**Teal Line Graph:** The year-end running reserve fund balance is shown as a line graph in teal. Our recommended funding plan is a threshold funding plan which ensures that the reserve account balance does not dip below a designated "threshold", which is set to one year's contribution to reserves while maintaining the percent funded between 74%.

**Mint Green Bars:** The annual reserve fund contributions are shown as mint green bars. This chart depicts the annual contribution in constant dollars, so the contributions are constantly \$45,000 over the 30 year timeline of the study.

**Brick Red Bars:** The anticipated yearly maintenance expenses are shown as brick red bars, depicting the anticipated expenses over the next 30 years.

Below is a graph depicting the projected fiscal year end running reserve fund balance over 30 years, the annual contribution and the anticipated yearly maintenance expenses using constant dollar values.





Reserve Study Projections at the Starting Recommended Funding of \$45,000 Using Constant Dollar Values



### Reserve Study Projections at Recommended Funding of \$45,000 **Reserve Consultants LLC**

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

-Jul-18		MAINT.	NEXT	1	2	3	4	5
# COMPONENT NAME		CYCLE	MAINT.	2019	2020	2021	2022	2023
2.6.1 Asphalt Pavement - repair		10	10					
2.7.1 Chain Link Fence - replace		30	15					
2.9.1 Dock Work - repair		15	5					\$15,500
2.9.2 Dock Pilings - replace		50	15					
2.9.3 Swim Lake Dock & Beach - upg	rades	30	2		\$6,500			
7.4.1 Sloped Metal Roofs - replace		40	12					
7.4.2 Low Sloped Roofs - replace		20	18					
8.3.1 Garage Doors - replace		20	20					
11.1.1 Backhoe - replace		25	2		\$58,040			
11.1.2 Truck - replace		10	1	\$39,240				
11.1.3 Tractor Mower - replace		20	0					
11.1.4 Road Sweeper - replace		20	0					
12.1.1 Clubhouse - repair contingency		10	5					\$26,800
12.1.2 Common Buildings - repair con	tingency	10	5					\$21,500
15.1.1 Water Meters - replace		20	12					
15.1.2 Valves - replace		5	5					\$20,800
15.2.1 Water Towers - circulation syst	em	30	28					
15.2.2 Water Towers - repair		50	48					
15.2.3 Reservoir & Dam - maintenance		10	8					
15.2.4 Mixer Unit & Storage Tanks - ma	aintenance	20	19					
15.3.1 Clearwell - replace		5	2		\$5,200			
15.4.1 Treatment Plant - repair		20	10					
15.5.1 Water Mains - repair		10	5					\$87,920
15.6.1 Septic Systems - replace		15	10					
16.5.1 Generator - replace		45	10					
	ENDED BY YEAR			\$39,240	\$69,740	\$0	\$0	\$172,520
	OVER RESERVES ESERVE CONTRIB			\$457,703 \$45,000	\$463,463 \$45,000	\$438,723 \$45,000	\$483,723 \$45,000	\$528,723 \$45,000
	E EXPENDITURES			\$39,240	\$69,740	\$0	\$0	\$172,520
ACCUMU	LATED RESERVES			\$463,463	\$438,723	\$483,723	\$528,723	\$401,203
	IAL ASSESSMENT			\$0	\$0	\$0	\$0	\$C
	AR-END BALANCE			\$463,463	\$438,723	\$483,723	\$528,723	\$401,203
	STUDY YEAR			1 (2019 )	2 (2020)	3 (2021)	4 (2022 )	5 (2023



# Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	6 <b>2024</b>	7 <b>2025</b>	8 <b>2026</b>	9 <b>2027</b>	10 <b>2028</b>
2.6.1	Asphalt Pavement - repair	10	10					\$21,500
2.7.1	Chain Link Fence - replace	30	15					
2.9.1	Dock Work - repair	15	5					
2.9.2	Dock Pilings - replace	50	15					
2.9.3	Swim Lake Dock & Beach - upgrades	30	2					
7.4.1	Sloped Metal Roofs - replace	40	12					
7.4.2		20	18					
	Low Sloped Roofs - replace							
8.3.1	Garage Doors - replace	20	20					
11.1.1	Backhoe - replace	25	2					
11.1.2	Truck - replace	10	1					
11.1.3	Tractor Mower - replace	20	0					
11.1.4	Road Sweeper - replace	20	0					
12.1.1	Clubhouse - repair contingency	10	5					
12.1.2	Common Buildings - repair contingency	10	5					
15.1.1	Water Meters - replace	20	12					
15.1.2	Valves - replace	5	5					\$20,80
15.2.1	Water Towers - circulation system	30	28					
15.2.2	Water Towers - repair	50	48					
15.2.3	Reservoir & Dam - maintenance	10	8			\$20,800		
15.2.4	Mixer Unit & Storage Tanks - maintenance	20	19					
15.3.1	Clearwell - replace	5	2		\$5,200			
15.4.1	Treatment Plant - repair	20	10					\$82,60
15.5.1	Water Mains - repair	10	5					
15.6.1	Septic Systems - replace	15	10					\$24,31
	Generator - replace	45	10					\$13,94
	TOTAL EXPENDED BY YEAR		1	\$0	\$5,200	\$20,800	\$0	\$163,15
	CARRY OVER RESERVES ANNUAL RESERVE CONTRIB			\$401,203 \$45,000	\$446,203 \$45,000	\$486,003	\$510,203 \$45,000	\$555,20 \$45,00
	RESERVE EXPENDITURES			\$45,000	\$45,000	\$45,000 \$20,800	\$45,000 \$0	\$45,00
	ACCUMULATED RESERVES			\$446,203	\$486,003	\$510,203	\$555,203	\$437,05
	INTEREST EARNED SPECIAL ASSESSMENT			\$0	\$0	\$0	\$0	\$
	YEAR-END BALANCE			\$446,203	\$486,003	\$510,203	\$555,203	\$437,05



# Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	11 <b>2029</b>	12 <b>2030</b>	13 <b>2031</b>	14 <b>2032</b>	15 <b>2033</b>
2.6.1	Asphalt Pavement - repair	10	10	2020	2000	2001	2002	2000
2.7.1	Chain Link Fence - replace	30	15					\$8,150
2.9.1	Dock Work - repair	15	5					
	•							*****
2.9.2	Dock Pilings - replace	50	15					\$106,50
2.9.3	Swim Lake Dock & Beach - upgrades	30	2					
7.4.1	Sloped Metal Roofs - replace	40	12		\$28,500			
7.4.2	Low Sloped Roofs - replace	20	18					
8.3.1	Garage Doors - replace	20	20					
11.1.1	Backhoe - replace	25	2					
11.1.2	Truck - replace	10	1	\$39,240				
11.1.3	Tractor Mower - replace	20	0					
11.1.4	Road Sweeper - replace	20	0					
12.1.1	Clubhouse - repair contingency	10	5					\$26,80
12.1.2	Common Buildings - repair contingency	10	5					\$21,50
15.1.1	Water Meters - replace	20	12		\$58,150			
15.1.2	Valves - replace	5	5					\$20,80
15.2.1	Water Towers - circulation system	30	28					
15.2.2	Water Towers - repair	50	48					
15.2.3	Reservoir & Dam - maintenance	10	8					
15.2.4	Mixer Unit & Storage Tanks - maintenance	20	19					
15.3.1	Clearwell - replace	5	2		\$5,200			
15.4.1	Treatment Plant - repair	20	10					
15.5.1	Water Mains - repair	10	5					\$87,92
15.6.1	Septic Systems - replace	15	10					
16.5.1	Generator - replace	45	10					
	TOTAL EXPENDED BY YEAR			\$39,240	\$91,850	\$0	\$0	\$271,67
	CARRY OVER RESERVES ANNUAL RESERVE CONTRIB			\$437,053 \$45,000	\$442,813 \$45,000	\$395,963 \$45,000	\$440,963 \$45,000	\$485,96 \$45,00
	RESERVE EXPENDITURES			\$39,240	\$91,850	\$0	\$0	\$271,67
	ACCUMULATED RESERVES			\$442,813	\$395,963	\$440,963	\$485,963	\$259,29
	INTEREST EARNED SPECIAL ASSESSMENT			\$0	\$0	\$0	\$0	\$
	YEAR-END BALANCE			\$442,813	\$395,963	\$440,963	\$485,963	\$259,29



# Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS
PER YEAR EXPENSES IN 2018 DOLLARS

	COMPONENT NAME	MAINT.	NEXT	16	17 2075	18	19	20
2.6.1	Asphalt Payament - repair	CYCLE 10	MAINT.	2034	2035	2036	2037	<b>2038</b> \$21,500
2.0.1	Asphalt Pavement - repair							Ψ21,300
2.7.1	Chain Link Fence - replace	30	15					
2.9.1	Dock Work - repair	15	5					\$15,500
2.9.2	Dock Pilings - replace	50	15					
2.9.3	Swim Lake Dock & Beach - upgrades	30	2					
7.4.1	Sloped Metal Roofs - replace	40	12					
7.4.2	Low Sloped Roofs - replace	20	18			\$20,430		
8.3.1	Garage Doors - replace	20	20					\$4,590
11.1.1	Backhoe - replace	25	2					
11.1.2	Truck - replace	10	1					
11.1.3	Tractor Mower - replace	20	0					\$6,000
11.1.4	Road Sweeper - replace	20	0					\$4,700
12.1.1	Clubhouse - repair contingency	10	5					
12.1.2	Common Buildings - repair contingency	10	5					
15.1.1	Water Meters - replace	20	12					
15.1.2	Valves - replace	5	5					\$20,800
15.2.1	Water Towers - circulation system	30	28					
15.2.2	Water Towers - repair	50	48					
15.2.3	Reservoir & Dam - maintenance	10	8			\$20,800		
15.2.4	Mixer Unit & Storage Tanks - maintenance	20	19				\$25,900	
15.3.1	Clearwell - replace	5	2		\$5,200			
15.4.1	Treatment Plant - repair	20	10					
15.5.1	Water Mains - repair	10	5					
15.6.1	Septic Systems - replace	15	10					
16.5.1	Generator - replace	45	10					
	TOTAL EXPENDED BY YEAR			\$0	\$5,200	\$41,230	\$25,900	\$73,09
	CARRY OVER RESERVES			\$259,293	\$304,293	\$344,093	\$347,863	\$366,96
	ANNUAL RESERVE CONTRIB RESERVE EXPENDITURES			\$45,000 \$0	\$45,000 \$5,200	\$45,000 \$41,230	\$45,000 \$25,900	\$45,00 \$73,09
	ACCUMULATED RESERVES			\$304,293	\$344,093	\$347,863	\$366,963	\$338,87
	INTEREST EARNED			\$0	\$0	\$0	\$0	\$
	SPECIAL ASSESSMENT YEAR-END BALANCE			\$304,293	\$344,093	\$347,863	\$366,963	\$338,87
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#### Reserve Study Projections at Recommended Funding of \$45,000 **Reserve Consultants LLC**

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

2-Jul-18		YEAR EXI	PENSES IN	2018 DOLLARS				
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	21 <b>2039</b>	22 <b>2040</b>	23 <b>2041</b>	24 <b>2042</b>	25 <b>2043</b>
2.6.1	Asphalt Pavement - repair	10	10					
2.7.1	Chain Link Fence - replace	30	15					
2.9.1	Dock Work - repair	15	5					
2.9.2	Dock Pilings - replace	50	15					
2.9.3	Swim Lake Dock & Beach - upgrades	30	2					
7.4.1	Sloped Metal Roofs - replace	40	12					
7.4.2	Low Sloped Roofs - replace	20	18					
8.3.1	Garage Doors - replace	20	20					
11.1.1	Backhoe - replace	25	2					
11.1.2	Truck - replace	10	1	\$39,240				
11.1.3	Tractor Mower - replace	20	0					
11.1.4	Road Sweeper - replace	20	0					
12.1.1	Clubhouse - repair contingency	10	5					\$26,800
12.1.2	Common Buildings - repair contingency	10	5					\$21,500
15.1.1	Water Meters - replace	20	12					
15.1.2	Valves - replace	5	5					\$20,800
15.2.1	Water Towers - circulation system	30	28					
15.2.2	Water Towers - repair	50	48					
15.2.3	Reservoir & Dam - maintenance	10	8					
15.2.4	Mixer Unit & Storage Tanks - maintenance	20	19					
15.3.1	Clearwell - replace	5	2		\$5,200			
15.4.1	Treatment Plant - repair	20	10					
15.5.1	Water Mains - repair	10	5					\$87,920
15.6.1	Septic Systems - replace	15	10					\$24,310
16.5.1	Generator - replace	45	10					
	TOTAL EXPENDED BY YEAR			\$39,240	\$5,200	\$0	\$0	\$181,330
	CARRY OVER RESERVES ANNUAL RESERVE CONTRIB RESERVE EXPENDITURES			\$338,873 \$45,000 \$39,240	\$344,633 \$45,000 \$5,200	\$384,433 \$45,000 \$0	\$429,433 \$45,000 \$0	\$474,433 \$45,000 \$181,330
	ACCUMULATED RESERVES			\$344,633	\$384,433	\$429,433	\$474,433	\$338,103
	INTEREST EARNED SPECIAL ASSESSMENT			\$0	\$0	\$0	\$0	\$0
	YEAR-END BALANCE			\$344,633	\$384,433	\$429,433	\$474,433	\$338,103
	STUDY YEAR			21 (2039)	22 (2040)	23 (2041)	24 (2042)	25 (2043



# Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH CONSTANT DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	26 <b>2044</b>	27 <b>2045</b>	28 <b>2046</b>	29 <b>2047</b>	30 <b>2048</b>
2.6.1	Asphalt Pavement - repair	10	10					\$21,500
2.7.1	Chain Link Fence - replace	30	15					
2.9.1	Dock Work - repair	15	5					
2.9.2	Dock Pilings - replace	50	15					
2.9.3	Swim Lake Dock & Beach - upgrades	30	2					
7.4.1	Sloped Metal Roofs - replace	40	12					
7.4.2	Low Sloped Roofs - replace	20	18					
8.3.1	Garage Doors - replace	20	20					
11.1.1	Backhoe - replace	25	2		\$58,040			
11.1.2	Truck - replace	10	1					
11.1.3	Tractor Mower - replace	20	0					
11.1.4	Road Sweeper - replace	20	0					
12.1.1	Clubhouse - repair contingency	10	5					
12.1.2	Common Buildings - repair contingency	10	5					
15.1.1	Water Meters - replace	20	12					
15.1.2	Valves - replace	5	5					\$20,800
15.2.1	Water Towers - circulation system	30	28			\$23,070		
15.2.2	Water Towers - repair	50	48					
15.2.3	Reservoir & Dam - maintenance	10	8					
15.2.4	Mixer Unit & Storage Tanks - maintenance	20	19					
15.3.1	Clearwell - replace	5	2		\$5,200			
15.4.1	Treatment Plant - repair	20	10					\$82,600
15.5.1	Water Mains - repair	10	5					
15.6.1	Septic Systems - replace	15	10					
	Generator - replace	45	10					
	TOTAL EXPENDED BY YEAR		l	\$0	\$63,240	\$23,070	\$0	\$124,900
	CARRY OVER RESERVES			\$338,103	\$383,103	\$364,863	\$386,793	\$431,79
	ANNUAL RESERVE CONTRIB RESERVE EXPENDITURES			\$45,000 <b>\$0</b>	\$45,000 \$63,240	\$45,000 \$23,070	\$45,000 \$0	\$45,000 \$124,900
	ACCUMULATED RESERVES			\$383,103	\$364,863	\$386,793	\$431,793	\$351,89
	INTEREST EARNED SPECIAL ASSESSMENT			\$0	\$0	\$0	\$0	\$0



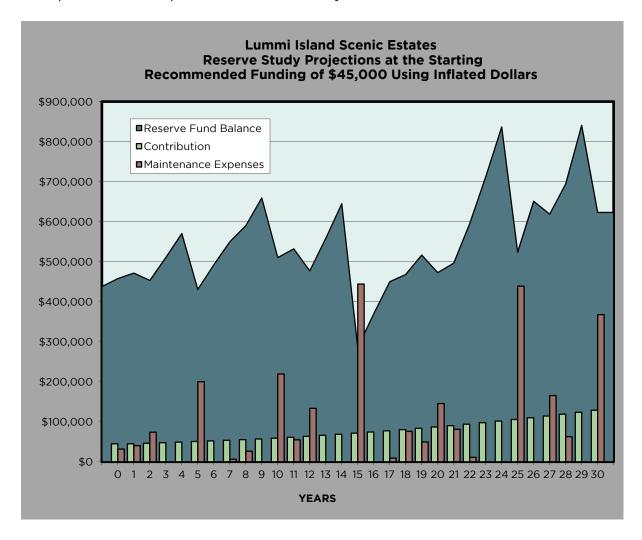
#### **Reserve Study Projections using Inflated Dollar Values**

**Teal Line Graph:** The year-end running reserve fund balance is shown as a line graph in teal and includes compound interest. Our recommended funding plan is a threshold funding plan which ensures that the reserve account balance does not dip below a designated "threshold", which is set to one year's contribution to reserves while maintaining the percent funded between 74%.

**Mint Green Bars:** The annual reserve fund contributions are shown as mint green bars. This chart depicts the annual contribution in inflated dollars, so the contributions are increasing over the 30 year timeline of the study.

**Brick Red Bars:** The anticipated yearly maintenance expenses are shown as brick red bars, depicting the anticipated inflated expenses over the next 30 years.

Below is a graph depicting the projected fiscal year end running reserve fund balance over 30 years with interest, the annual inflated contribution and the anticipated yearly maintenance expenses using inflated dollar values.





Reserve Study Projections at the Starting Recommended Funding of \$45,000 Using Inflated Dollar Values



## Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

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2-Jul-18	COMPONENT NAME		MAINT. CYCLE	NEXT MAINT.	1 <b>2019</b>	2 <b>2020</b>	3 <b>2021</b>	4 <b>2022</b>	5 <b>2023</b>
2.6.1	Asphalt Pavement - repair		10	10					
2.7.1	Chain Link Fence - replace		30	15					
2.9.1	Dock Work - repair		15	5					\$17,969
2.9.2	Dock Pilings - replace		50	15					
2.9.3	Swim Lake Dock & Beach - upgrades		30	2		\$6,896			
7.4.1	Sloped Metal Roofs - replace		40	12					
7.4.2	Low Sloped Roofs - replace		20	18					
8.3.1	Garage Doors - replace		20	20					
11.1.1	Backhoe - replace		25	2		\$61,575			
11.1.2	Truck - replace		10	1	\$40,417				
11.1.3	Tractor Mower - replace		20	0					
11.1.4	Road Sweeper - replace		20	0					
12.1.1	Clubhouse - repair contingency		10	5					\$31,069
12.1.2	Common Buildings - repair contingency	у	10	5					\$24,924
15.1.1	Water Meters - replace		20	12					
15.1.2	Valves - replace		5	5					\$24,113
15.2.1	Water Towers - circulation system		30	28					
15.2.2	Water Towers - repair		50	48					
15.2.3	Reservoir & Dam - maintenance		10	8					
15.2.4	Mixer Unit & Storage Tanks - maintenar	nce	20	19					
15.3.1	Clearwell - replace		5	2		\$5,517			
15.4.1	Treatment Plant - repair		20	10					
15.5.1	Water Mains - repair		10	5					\$101,923
15.6.1	Septic Systems - replace		15	10					
16.5.1	Generator - replace		45	10					
		RESERVES E CONTRIB ENDITURES RESERVES ST EARNED			\$40,417 \$457,703 \$45,000 \$40,417 \$462,286 \$9,200	\$73,987 \$471,486 \$46,350 \$73,987 \$443,849 \$9,153	\$0 \$453,002 \$47,741 \$0 \$500,743 \$9,537	\$0 \$510,280 \$49,173 \$0 \$559,453 \$10,697	\$199,998 \$570,150 \$50,648 \$199,998 \$420,800 \$9,910
		BALANCE	2.10	11.70	\$471,486	\$453,002	\$510,280 7 (2021)	\$570,150	\$430,710
	YEARS CONTRIBUTION INFLATION COMPONENT COMPOUND INFLATION	0-1 0% 3%	<b>2-10</b> 3% 3%	4% 4%	1 (2019 ) 0% 103%	2 (2020 ) 3% 106%	3 (2021) 3% 109%	4 (2022 ) 3% 113%	5 (2023 ) 3% 116%
	INTEREST RATE MULTIPLIER	2%	2%	3%	2%	2%	2%	2%	2%



## Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

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#	COMPONENT NAME		MAINT. CYCLE	NEXT MAINT.	6 <b>2024</b>	7 <b>2025</b>	8 <b>2026</b>	9 <b>2027</b>	10 <b>2028</b>
2.6.1	Asphalt Pavement - repair		10	10					\$28,894
2.7.1	Chain Link Fence - replace		30	15					
2.9.1	Dock Work - repair		15	5					
2.9.2	Dock Pilings - replace		50	15					
2.9.3	Swim Lake Dock & Beach - upgrades		30	2					
7.4.1	Sloped Metal Roofs - replace		40	12					
7.4.2	Low Sloped Roofs - replace		20	18					
8.3.1	Garage Doors - replace		20	20					
11.1.1	Backhoe - replace		25	2					
11.1.2	Truck - replace		10	1					
11.1.3	Tractor Mower - replace		20	0					
11.1.4	Road Sweeper - replace		20	0					
12.1.1	Clubhouse - repair contingency		10	5					
12.1.2	Common Buildings - repair contingency	y	10	5					
15.1.1	Water Meters - replace		20	12					
15.1.2	Valves - replace		5	5					\$27,953
15.2.1	Water Towers - circulation system		30	28					
15.2.2	Water Towers - repair		50	48					
15.2.3	Reservoir & Dam - maintenance		10	8			\$26,349		
15.2.4	Mixer Unit & Storage Tanks - maintenan	nce	20	19					
15.3.1	Clearwell - replace		5	2		\$6,395			
15.4.1	Treatment Plant - repair		20	10					\$111,007
15.5.1	Water Mains - repair		10	5					
15.6.1	Septic Systems - replace		15	10					\$32,671
16.5.1	Generator - replace		45	10					\$18,734
		RESERVES E CONTRIB ENDITURES RESERVES IT EARNED			\$0 \$430,710 \$52,167 \$0 \$482,877 \$9,136	\$6,395 \$492,013 \$53,732 \$6,395 \$539,350 \$10,314	\$26,349 \$549,663 \$55,344 \$26,349 \$578,659 \$11,283	\$0 \$589,942 \$57,005 \$0 \$646,947 \$12,369	\$219,260 \$659,316 \$58,715 \$219,260 \$498,771 \$11,581
	SPECIAL ASS YEAR-END	BALANCE		44	\$492,013	\$549,663	\$589,942	\$659,316	\$510,351
	YEARS CONTRIBUTION INFLATION	<b>0-1</b> 0%	<b>2-10</b> 3%	<b>11-30</b> 4%	6 (2024 ) 3%	7 (2025 ) 3%	8 (2026 ) 3%	9 (2027 ) 3%	10 (2028 ) 3%
	COMPONENT COMPOUND INFLATION INTEREST RATE MULTIPLIER	3% 2%	3% 2%	4% 3%	119% 2%	123% 2%	127% 2%	130% 2%	134% 2%



## Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

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2.6.1   Asphalt Pavement - repair   10   10   10   10   10   10   10   1	2-Jul-18	COMPONENT NAME		MAINT. CYCLE	NEXT MAINT.	11 <b>2029</b>	12 <b>2030</b>	13 <b>2031</b>	14 <b>2032</b>	15 <b>2033</b>
2.9.1   Dock Work - replace   50   15										
29.2   Dock Pilings - replace   S0   15   S174,136	2.7.1	Chain Link Fence - replace		30	15					\$13,326
2.9.2   Swim Lake Dock & Beach - upgrades   30   2	2.9.1	Dock Work - repair		15	5					
2.1	2.9.2	Dock Pilings - replace		50	15					\$174,136
2.2   18   2.2   2.2   2.2   2.2   2.2   3.3   3.3   3.4   3.4   3.5   3.4   3.5	2.9.3	Swim Lake Dock & Beach - upgrades		30	2					
8.5.1   Garage Doors - replace   20   20	7.4.1	Sloped Metal Roofs - replace		40	12		\$41,427			
11.11   Backhoe - replace	7.4.2	Low Sloped Roofs - replace		20	18					
11.12   Truck - replace	8.3.1	Garage Doors - replace		20	20					
11.1.3   Tractor Mower - replace	11.1.1	Backhoe - replace		25	2					
11.1.4	11.1.2	Truck - replace		10	1	\$54,845				
12.11   Clubhouse - repair contingency   10   5   \$43,820     12.12   Common Buildings - repair contingency   10   5   \$35,154     15.11   Water Meters - replace   20   12   \$84,526     15.12   Valves - replace   5   5   \$34,010     15.21   Water Towers - circulation system   30   28     15.22   Water Towers - repair   50   48     15.23   Reservoir & Dam - maintenance   10   8     15.24   Mixer Unit & Storage Tanks - maintenance   20   19     15.31   Clearwell - replace   5   2   \$7,559     15.41   Treatment Plant - repair   20   10     15.51   Water Mains - repair   10   5   \$143,756     15.61   Septic Systems - replace   15   10     16.51   Generator - replace   45   10     16.51   Generator - replace   45   10     16.51   Generator - replace   5   54,845   \$133,511   \$0   \$0   \$444,202     ANNUAL RESERVE CONTRIB   \$61,051   \$53,051   \$53,051   \$60,063   \$61,063   \$61,063   \$63,066   \$66,066   \$66,68   \$744,202     ACCUMULATED RESERVES   \$510,251   \$53,1974   \$476,878   \$558,221   \$644,686   \$77,777   \$13,779     SPECIAL ASSESSMENT   \$9,04   \$44,09   \$15,297   \$17,777   \$13,779     YEAR-END BALANCE   \$33,974   \$476,878   \$558,221   \$644,686   \$225,668     YEAR   YEAR-END BALANCE   \$33,974   \$476,878   \$558,221   \$644,686   \$225,668     CONTRIBUTION INFLATION   0%   3%   44%   4	11.1.3	Tractor Mower - replace		20	0					
12.12   Common Buildings - repair contingency   10   5   \$35,154     15.11   Water Meters - replace   20   12   \$84,526     15.12   Valves - replace   5   5   \$34,010     15.21   Water Towers - circulation system   30   28     15.22   Water Towers - repair   50   48     15.23   Reservoir & Dam - maintenance   10   8     15.24   Mixer Unit & Storage Tanks - maintenance   20   19     15.31   Clearwell - replace   5   2   \$7,559     15.41   Treatment Plant - repair   20   10     15.53   Water Mains - repair   10   5   \$143,756     15.61   Septic Systems - replace   15   10     16.51   Generator - replace   45   10     16.52   Generator - replace   45   10     16.53   Generator - replace   45   10     16.54   Generator - replace   45   10     16.55   Generator - replace   45   10     16.56   Generator - replace   45   10     16.57   Generator - replace   45   10     16.58   Generator - replace   45   10     16.59   Generator - replace   45   10     16.50   Generator - replace   45   10     16.51   Generator - replace   45   10     16.52   Generator - replace   54   10     16.53   Generator - replace   54   10     16.54   Generator - replace   55	11.1.4	Road Sweeper - replace		20	0					
15.11   Water Meters - replace	12.1.1	Clubhouse - repair contingency		10	5					\$43,820
15.12   Valves - replace	12.1.2	Common Buildings - repair contingency	,	10	5					\$35,154
15.2.1   Water Towers - circulation system   30   28     15.2.2   Water Towers - repair   50   48     15.2.3   Reservoir & Dam - maintenance   10   8     15.2.4   Mixer Unit & Storage Tanks - maintenance   20   19     15.3.1   Clearwell - replace   5   2   \$7,559     15.4.1   Treatment Plant - repair   20   10     15.5.1   Water Mains - repair   10   5   \$143,756     15.6.1   Septic Systems - replace   15   10     16.5.1   Generator - replace   45   10     16.5.1   Generator - replace   45   10     TOTAL EXPENDED BY YEAR   \$54,845   \$133,511   \$0   \$0   \$444,202     CARRY OVER RESERVES   \$510,551   \$53,1974   \$476,878   \$558,221   \$644,686     ANNUAL RESERVE CONTRIB   \$61,063   \$63,506   \$66,046   \$68,688   \$71,436     RESERVE EXPENDITURES   \$56,845   \$133,511   \$0   \$0   \$444,202     ACCUMULATED RESERVES   \$516,570   \$461,969   \$542,924   \$626,909   \$271,919     INTEREST EARNED   \$15,404   \$14,909   \$15,297   \$17,777   \$13,749     SPECIAL ASSESSMENT   YEAR-END BALANCE   \$51,974   \$476,878   \$558,221   \$644,686   \$285,668     VEARS   OHD NIFICATION   O% 3% 49% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4%	15.1.1	Water Meters - replace		20	12		\$84,526			
15.2.2   Water Towers - repair	15.1.2	Valves - replace		5	5					\$34,010
15.2.3   Reservoir & Dam - maintenance   10   8	15.2.1	Water Towers - circulation system		30	28					
15.2.4   Mixer Unit & Storage Tanks - maintenance   20   19	15.2.2	Water Towers - repair		50	48					
15.3.1   Clearwell - replace   5   2   \$7,559     15.4.1   Treatment Plant - repair   20   10     15.5.1   Water Mains - repair   10   5   \$143,756     15.6.1   Septic Systems - replace   15   10     16.5.1   Generator - replace   45   10     TOTAL EXPENDED BY YEAR   \$54,845   \$133,511   \$0   \$0   \$444,202     CARRY OVER RESERVES   \$510,351   \$531,974   \$476,878   \$558,221   \$644,686     ANNUAL RESERVE CONTRIB   \$61,063   \$63,506   \$66,046   \$68,688   \$71,436     RESERVE EXPENDITURES   \$516,570   \$461,969   \$542,924   \$626,909   \$271,919     INTEREST EARNED   \$15,404   \$14,909   \$15,297   \$17,777   \$13,749     YEARS   \$0-1   \$2-10   \$11-30   \$11 (2029)   12 (2030)   13 (2031)   14 (2032)   15 (2033)     CONTRIBUTION INFLATION   \$3%   4%   4%   4%   4%   4%   4%   4%	15.2.3	Reservoir & Dam - maintenance		10	8					
15.4.1   Treatment Plant - repair   20   10	15.2.4	Mixer Unit & Storage Tanks - maintenan	ice	20	19					
15.5.1   Water Mains - repair   10   5   \$143,756     15.6.1   Septic Systems - replace   15   10     16.5.1   Generator - replace   45   10     TOTAL EXPENDED BY YEAR   \$54,845   \$133,511   \$0   \$0   \$444,202     CARRY OVER RESERVES   \$510,351   \$53,974   \$476,878   \$558,221   \$644,686     ANNUAL RESERVE CONTRIB   \$61,063   \$63,506   \$66,046   \$68,688   \$71,436     RESERVE EXPENDITURES   \$54,845   \$133,511   \$0   \$0   \$444,202     ACCUMULATED RESERVES   \$516,570   \$461,969   \$542,924   \$626,909   \$271,919     INTEREST EARNED   \$15,404   \$14,909   \$15,297   \$17,777   \$13,749     SPECIAL ASSESSMENT   YEAR-END BALANCE   \$531,974   \$476,878   \$558,221   \$644,686   \$285,668     YEAR	15.3.1	Clearwell - replace		5	2		\$7,559			
15.6.1 Septic Systems - replace	15.4.1	Treatment Plant - repair		20	10					
TOTAL EXPENDED BY YEAR   \$54,845   \$133,511   \$0   \$444,202	15.5.1	Water Mains - repair		10	5					\$143,756
TOTAL EXPENDED BY YEAR   \$54,845   \$133,511   \$0   \$0   \$444,202	15.6.1	Septic Systems - replace		15	10					
CARRY OVER RESERVES  ANNUAL RESERVE CONTRIB  \$61,063 \$63,506 \$66,046 \$68,688 \$71,436  RESERVE EXPENDITURES \$54,845 \$133,511 \$0 \$0 \$0 \$444,202  ACCUMULATED RESERVES \$516,570 \$461,969 \$542,924 \$626,909 \$271,919  INTEREST EARNED \$15,404 \$14,909 \$15,297 \$17,777 \$13,749  PECIAL ASSESSMENT  YEAR-END BALANCE  YEARS CONTRIBUTION INFLATION 0% 3% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4%	16.5.1	•		45	10					
YEAR-END BALANCE \$531,974 \$476,878 \$558,221 \$644,686 \$285,668 YEARS 0-1 2-10 11-30 11 (2029) 12 (2030) 13 (2031) 14 (2032) 15 (2033) **CONTRIBUTION INFLATION 0% 3% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4%		CARRY OVER I ANNUAL RESERVE RESERVE EXPO ACCUMULATED INTERES'	RESERVES CONTRIB NDITURES RESERVES T EARNED			\$510,351 \$61,063 \$54,845 \$516,570	\$531,974 \$63,506 \$133,511 \$461,969	\$476,878 \$66,046 \$0 \$542,924	\$558,221 \$68,688 \$0 \$626,909	\$644,686 \$71,436 \$444,202 \$271,919
CONTRIBUTION INFLATION         0%         3%         4%         4%         4%         4%         4%         4%         4%         4%         4%         4%         4%         4%         4%         1		YEAR-END	BALANCE	2 **	11.70					
		CONTRIBUTION INFLATION	0%	3%	4%	4%	4%	4%	4%	4%
INTERESTRATE FIGURE IN Z/0   Z/0   J/0		COMPONENT COMPOUND INFLATION INTEREST RATE MULTIPLIER	3% 2%	3% 2%	4% 3%	140% 3%	145% 3%	151% 3%	157% 3%	164% 3%



## Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

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2-Jul-18 #	COMPONENT NAME		MAINT. CYCLE	NEXT MAINT.	16 <b>2034</b>	17 <b>2035</b>	18 <b>2036</b>	19 <b>2037</b>	20 <b>2038</b>
2.6.1	Asphalt Pavement - repair		10	10					\$42,770
2.7.1	Chain Link Fence - replace		30	15					
2.9.1	Dock Work - repair		15	5					\$30,835
2.9.2	Dock Pilings - replace		50	15					
2.9.3	Swim Lake Dock & Beach - upgrades		30	2					
7.4.1	Sloped Metal Roofs - replace		40	12					
7.4.2	Low Sloped Roofs - replace		20	18			\$37,576		
8.3.1	Garage Doors - replace		20	20					\$9,131
11.1.1	Backhoe - replace		25	2					
11.1.2	Truck - replace		10	1					
11.1.3	Tractor Mower - replace		20	0					\$11,936
11.1.4	Road Sweeper - replace		20	0					\$9,350
12.1.1	Clubhouse - repair contingency		10	5					
12.1.2	Common Buildings - repair contingend	су	10	5					
15.1.1	Water Meters - replace		20	12					
15.1.2	Valves - replace		5	5					\$41,378
15.2.1	Water Towers - circulation system		30	28					
15.2.2	Water Towers - repair		50	48					
15.2.3	Reservoir & Dam - maintenance		10	8			\$38,256		
15.2.4	Mixer Unit & Storage Tanks - maintena	ince	20	19				\$49,542	
15.3.1	Clearwell - replace		5	2		\$9,196			
15.4.1	Treatment Plant - repair		20	10					
15.5.1	Water Mains - repair		10	5					
15.6.1	Septic Systems - replace		15	10					
16.5.1	Generator - replace	- D DV V - A -	45	10	**	#0.10¢	#7E 070	#40.F40	\$14E 400
	TOTAL EXPENDE CARRY OVER	RESERVES			<b>\$0</b> \$285,668	<b>\$9,196</b> \$369,646	<b>\$75,832</b> \$449,825	<b>\$49,542</b> \$467,910	<b>\$145,400</b> \$516,486
	ANNUAL RESERV RESERVE EXP				\$74,293 \$0	\$77,265 \$9,196	\$80,355 \$75,832	\$83,569 \$49,542	\$86,912 \$145,400
	ACCUMULATED				\$359,961 \$9,684	\$437,714 \$12,110	\$454,348 \$13,563	\$501,938 \$14,548	\$457,998 \$14,617
	SPECIAL AS	SSESSMENT							
	YEAR-END YEARS	D BALANCE 0-1	2-10	11-30	<b>\$369,646</b> 16 (2034 )	<b>\$449,825</b> 17 (2035 )	<b>\$467,910</b> 18 (2036 )	<b>\$516,486</b> 19 (2037 )	<b>\$472,615</b> 20 (2038 )
	CONTRIBUTION INFLATION	0%	3%	4%	4%	4%	4%	4%	4%
	COMPONENT COMPOUND INFLATION	3%	3%	4%	170%	177%	184%	191%	199%
	INTEREST RATE MULTIPLIER	2%	2%	3%	3%	3%	3%	3%	3%



### Reserve Study Projections at Recommended Funding of \$45,000 **Reserve Consultants LLC**

30-YEAR SPREADSHEET WITH INFLATED DOLLARS

#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	21 <b>2039</b>	22 <b>2040</b>	23 <b>2041</b>	24 <b>2042</b>	25 <b>2043</b>
2.6.1	Asphalt Pavement - repair	10	10					
2.7.1	Chain Link Fence - replace	30	15					
2.9.1	Dock Work - repair	15	5					
2.9.2	Dock Pilings - replace	50	15					
2.9.3	Swim Lake Dock & Beach - upgrades	30	2					
7.4.1	Sloped Metal Roofs - replace	40	12					
7.4.2	Low Sloped Roofs - replace	20	18					
8.3.1	Garage Doors - replace	20	20					
11.1.1	Backhoe - replace	25	2					
11.1.2	Truck - replace	10	1	\$81,184				
11.1.3	Tractor Mower - replace	20	0					
11.1.4	Road Sweeper - replace	20	0					
12.1.1	Clubhouse - repair contingency	10	5					\$64
12.1.2	Common Buildings - repair contingency	10	5					\$52
15.1.1	Water Meters - replace	20	12					
15.1.2	Valves - replace	5	5					\$50
15.2.1	Water Towers - circulation system	30	28					
15.2.2	Water Towers - repair	50	48					
15.2.3	Reservoir & Dam - maintenance	10	8					
15.2.4	Mixer Unit & Storage Tanks - maintenance	20	19					
15.3.1	Clearwell - replace	5	2		\$11,189			
15.4.1	Treatment Plant - repair	20	10					
15.5.1	Water Mains - repair	10	5					\$212
15.6.1	Septic Systems - replace	15	10					\$58
16.5.1	Generator - replace	45	10					
	TOTAL EXPENDED BY YEAR			\$81,184	\$11,189	\$0	\$0	\$438

23 (2041) 4% 207% 4% 224% 4% 233% 4% 4% 215% 242%

\$481,821

\$496,137

21 (2039 )

11-30

4%

\$14,317

\$578,953

\$595,079

22 (2040)

\$16,126

\$692,844

\$19,319

\$712,163

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CONTRIBUTION INFLATION
COMPONENT COMPOUND INFLATION

INTEREST RATE MULTIPLIER

\$503,593

\$20,105

\$523,698

25 (2043)

\$813,838

\$22,890

\$836,728

24 (2042)

ACCUMULATED RESERVES

INTEREST EARNED

SPECIAL ASSESSMENT

YEAR-END BALANCE



## Reserve Study Projections at Recommended Funding of \$45,000 Reserve Consultants LLC

30-YEAR SPREADSHEET WITH INFLATED DOLLARS PER YEAR EXPENSES IN 2018 DOLLARS

2-	lul-	18
	Jui-	10

2-Jul-18	COMPONENT NAME		MAINT. CYCLE	NEXT MAINT.	26 <b>2044</b>	27 <b>2045</b>	28 <b>2046</b>	29 <b>2047</b>	30 <b>2048</b>
2.6.1	Asphalt Pavement - repair		10	10					\$63,311
2.7.1	Chain Link Fence - replace		30	15					
2.9.1	Dock Work - repair		15	5					
2.9.2	Dock Pilings - replace		50	15					
2.9.3	Swim Lake Dock & Beach - upgrades		30	2					
7.4.1	Sloped Metal Roofs - replace		40	12					
7.4.2	Low Sloped Roofs - replace		20	18					
8.3.1	Garage Doors - replace		20	20					
11.1.1	Backhoe - replace		25	2		\$151,938			
11.1.2	Truck - replace		10	1					
11.1.3	Tractor Mower - replace		20	0					
11.1.4	Road Sweeper - replace		20	0					
12.1.1	Clubhouse - repair contingency		10	5					
12.1.2	Common Buildings - repair contingency	,	10	5					
15.1.1	Water Meters - replace		20	12					
15.1.2	Valves - replace		5	5					\$61,249
15.2.1	Water Towers - circulation system		30	28			\$62,809		
15.2.2	Water Towers - repair		50	48					
15.2.3	Reservoir & Dam - maintenance		10	8					
15.2.4	Mixer Unit & Storage Tanks - maintenan	ice	20	19					
15.3.1	Clearwell - replace		5	2		\$13,613			
15.4.1	Treatment Plant - repair		20	10					\$243,231
15.5.1	Water Mains - repair		10	5					
15.6.1	Septic Systems - replace		15	10					
16.5.1	Generator - replace		45	10					
		RESERVES CONTRIB NDITURES RESERVES T EARNED			\$523,698 \$109,972 \$0 \$633,670 \$17,361	\$165,551 \$651,030 \$114,371 \$165,551 \$599,850 \$18,763	\$62,809 \$618,614 \$118,945 \$62,809 \$674,750 \$19,400	\$694,151 \$123,703 \$0 \$817,854 \$22,680	\$367,791 \$840,534 \$128,651 \$367,791 \$601,394 \$21,629
	SPECIAL ASS YEAR-END	BALANCE			\$651,030	\$618,614	\$694,151	\$840,534	\$623,023
	YEARS CONTRIBUTION INFLATION	<b>0-1</b> 0%	<b>2-10</b> 3%	11-30 4%	26 (2044 ) 4%	27 (2045 ) 4%	28 (2046 ) 4%	29 (2047 ) 4%	30 (2048 ) 4%
	COMPONENT COMPOUND INFLATION INTEREST RATE MULTIPLIER	3% 2%	3% 2%	4% 3%	252% 3%	262% 3%	272% 3%	283% 3%	294% 3%
	INTEREST RATE PIOETIPLIER	Z/0	∠70	370	3/0	3/0	3/0	3/0	3%



## 30 Year Summary at the Recommended Starting Funding of \$45,000 Using Inflated Dollar Values

Inflation 8	Interest Ass	umptions	Risk of Special Assessment
	Inflation	Interest	Nominal Risk 100% and above
Years 0-1	0%	2%	Low Risk 70% 99%
Years 2-10	3%	2%	Moderate Risk 25% to 69%
Years 11-30	4%	3%	Highest Risk 0% to 24%

Fiscal Year End	Fiscal Year Beginning Reserve	Recommended Annual Reserve	Average Contribution per Unit per	Projected Reserve	Projected Interest	Fiscal Year End Reserve	Projected Fully Funded	% Funded
Tour End	Balance	Contribution	Month	Expenditures	Earned	Balance	Balance	
1 (2019)	\$457,703	\$45,000	\$9	(\$40,417)	\$9,200	\$471,486	\$375,579	126%
2 (2020)	\$471,486	\$46,350	\$10	(\$73,987)	\$9,153	\$453,002	\$363,190	125%
3 (2021)	\$453,002	\$47,741	\$10	(\$0)	\$9,537	\$510,280	\$423,707	120%
4 (2022)	\$510,280	\$49,173	\$10	(\$O)	\$10,697	\$570,150	\$487,528	117%
5 (2023)	\$570,150	\$50,648	\$11	(\$199,998)	\$9,910	\$430,710	\$360,625	119%
6 (2024)	\$430,710	\$52,167	\$11	(\$0)	\$9,136	\$492,013	\$425,666	116%
7 (2025)	\$492,013	\$53,732	\$11	(\$6,395)	\$10,314	\$549,663	\$488,076	113%
8 (2026)	\$549,663	\$55,344	\$12	(\$26,349)	\$11,283	\$589,942	\$534,662	110%
9 (2027)	\$589,942	\$57,005	\$12	(\$0)	\$12,369	\$659,316	\$609,952	108%
10 (2028)	\$659,316	\$58,715	\$12	(\$219,260)	\$11,581	\$510,351	\$476,405	107%
11 (2029)	\$510,351	\$61,063	\$13	(\$54,845)	\$15,404	\$531,974	\$505,683	105%
12 (2030)	\$531,974	\$63,506	\$13	(\$133,511)	\$14,909	\$476,878	\$462,296	103%
13 (2031)	\$476,878	\$66,046	\$14	(\$O)	\$15,297	\$558,221	\$549,436	102%
14 (2032)	\$558,221	\$68,688	\$14	(\$0)	\$17,777	\$644,686	\$642,808	100%
15 (2033)	\$644,686	\$71,436	\$15	(\$444,202)	\$13,749	\$285,668	\$311,506	92%
16 (2034)	\$285,668	\$74,293	\$16	(\$0)	\$9,684	\$369,646	\$401,186	92%
17 (2035)	\$369,646	\$77,265	\$16	(\$9,196)	\$12,110	\$449,825	\$488,614	92%
18 (2036)	\$449,825	\$80,355	\$17	(\$75,832)	\$13,563	\$467,910	\$518,056	90%
19 (2037)	\$467,910	\$83,569	\$17	(\$49,542)	\$14,548	\$516,486	\$577,541	89%
20 (2038)	\$516,486	\$86,912	\$18	(\$145,400)	\$14,617	\$472,615	\$549,814	86%
21 (2039)	\$472,615	\$90,389	\$19	(\$81,184)	\$14,317	\$496,137	\$586,938	85%
22 (2040)	\$496,137	\$94,004	\$20	(\$11,189)	\$16,126	\$595,079	\$697,261	85%
23 (2041)	\$595,079	\$97,764	\$20	(\$O)	\$19,319	\$712,163	\$826,767	86%
24 (2042)	\$712,163	\$101,675	\$21	(\$0)	\$22,890	\$836,728	\$965,519	87%
25 (2043)	\$836,728	\$105,742	\$22	(\$438,876)	\$20,105	\$523,698	\$687,954	76%
26 (2044)	\$523,698	\$109,972	\$23	(\$0)	\$17,361	\$651,030	\$829,777	78%
27 (2045)	\$651,030	\$114,371	\$24	(\$165,551)	\$18,763	\$618,614	\$821,116	75%
28 (2046)	\$618,614	\$118,945	\$25	(\$62,809)	\$19,400	\$694,151	\$861,633	81%
29 (2047)	\$694,151	\$123,703	\$26	(\$0)	\$22,680	\$840,534	\$1,024,675	82%
30 (2048)	\$840,534	\$128,651	\$27	(\$367,791)	\$21,629	\$623,023	\$842,303	74%

Note: 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.



#### **FULLY FUNDED BALANCE CALCULATIONS**

## RCW 64.38.070 (j) states that a reserve study shall include:

"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". Furthermore, RCW 64.38.070 (e) stipulates that a reserve study shall include "The percentage of the fully funded balance that the reserve account is funded".

"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, as defined by RCW 64.38.010 (9).

$$FFB = the \ sum \ of \ \frac{replacement \ cost \ * \ effective \ age}{useful \ life} \ for \ all \ reserve \ components$$

The **percent fully funded** relates to how much the building has deteriorated, or been used up, compared to the cost of making it new again. Another way of thinking of this is the percent fully funded illustrates how much you should have saved thus far to pay for the future replacement of a component, based on the replacement cost and how many years you have to save.

## Example of how it works: A Roof Replacement

#### **SCENARIO**

## If you have a roof that will last 10 years and cost \$100,000 to replace:

- To pay for the future replacement in 10 years, you should save \$10,000 each year to have enough money to cover the replacement cost.
- When it is 2 years old, it is 20% used up, and the Fully Funded Balance for its future replacement is \$20,000. If you have saved \$10,000 for the future replacement in 2 years, you are 50% fully funded. If you have saved \$20,000, you are 100% fully funded.
- When the roof is 8 years old it will be 80% deteriorated, and its Fully Funded Balance would be \$80,000. If you have saved only \$10,000 by Year 8 you are 13% fully funded. If you have saved \$20,000, you are at 25%, and at \$80,000 you are at 100% fully funded.

#### **ANALYSIS**

- A. In effect, the percent fully funded is a measure of how well an association can withstand the risk of unexpected expenses. Such unexpected expenses include: emergency expenses not covered by insurance, expenses that are higher than predicted, and expenses that are required earlier than anticipated.
- B. A higher percent funded means more money is in the bank, and that lowers the risk of special assessment when unexpected expenses occur. A poorly funded association would have less money available for unexpected expenses, and a higher risk of a special assessment to generate the needed funds.
- C. By looking at cash flow demands we are able to determine how much money is needed to fund anticipated replacement and maintenance of the reserve components and recommend a steady contribution over the 30 year span of the study. Budgeting to maintain a minimum balance, or threshold, helps to ensure that a special assessment will not be required if an unexpected expense arises.



We typically recommend that an 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 usually recommend that an association consider a threshold equal to the recommended annual reserve contribution because this is the average maintenance expense over the thirty years. However, each association must judge their unique risk tolerance.

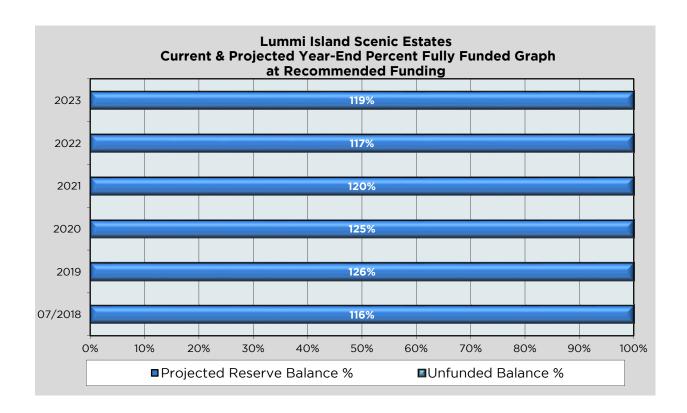
The Fully Funded Balance for Lummi Island Scenic Estates is \$378,746. The actual current funding is \$437,803. The Association is approximately 116% funded.

This means that based on a straight line savings for each reserve component, the Association saved 116% of the accumulated depreciation of the reserve components.

At 116%, Lummi Island Scenic Estates is considered to be at **nominal risk for a special assessment**.

% Funded	Special Assessment Risk Level	
100% +	Nominal Risk	
60% to 99%	Low Risk	
25% to 59%	Moderate Risk	
24% or less	High Risk	

Below is a graph with the current and projected year-end percent fully funded calculated at the recommended starting annual reserve contribution of \$45,000.





### **Deficit or Surplus in Reserve Funding**

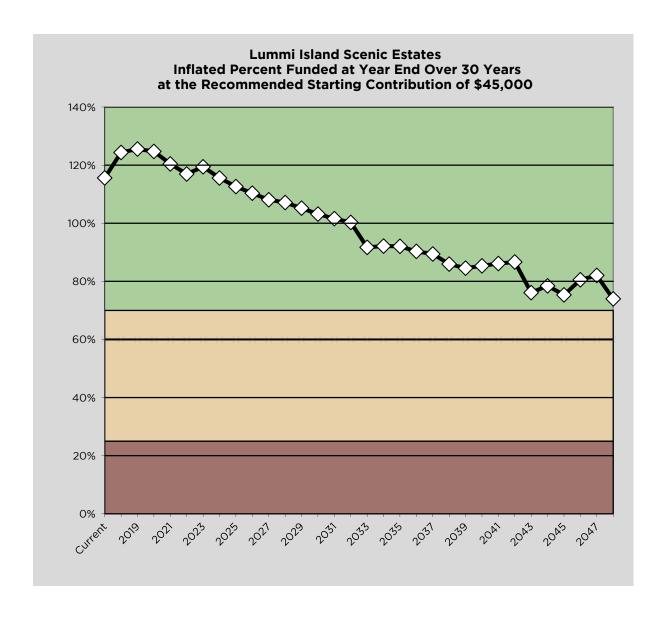
The Washington Unified Common Interest Ownership Act (WUCIOA) requires that the reserve study include the amount of any current deficit or surplus in reserve funding expressed on a dollars per unit basis. This is calculated by subtracting the association's reserve account balance as of the date of the study from the fully funded balance, and then multiplying the result by the fraction or percentage of the common expenses of the association allocable to each unit.

Current Reserve Account Balance	\$437,803
Current Fully Funded Balance	\$378,746
Reserve Fund Surplus	\$59,057
Number of Units	399
Average Surplus per Unit	\$148.01

Allocated interest is divided evenly between the units at Lummi Island Scenic Estates.



The following chart illustrates the projected percent funded at year end over the next 30 years at the recommended starting contribution rate of \$45,000. The values include interest and inflation rate assumptions, planned and recommended special assessments.





**FULLY FUNDED BALANCE CALCULATION TABLE** 



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

#### **Lummi Island Scenic Estates**

# $FFB = the \ sum \ of \ \frac{replacement \ cost \ * \ effective \ age}{useful \ life} \ for \ all \ reserve \ components$

Co	emponent Description	Quantity	Unit	Maintenance Cycle (Useful Life)	Remaining Useful Life	Effective Age	Current Replacement Cost	Fully Funded Balance
2.6.1 Asphalt	Pavement - repair	1	LS	10	10	-	\$21,500	\$0
2.7.1 Chain Li	nk Fence - replace	320	LF	30	15	15	\$8,150	\$4,075
2.9.1 <b>Dock W</b>	ork - repair	1	LS	15	5	10	\$15,500	\$10,333
2.9.2 Dock Pil	ngs - replace	1	LS	50	15	35	\$106,500	\$74,550
2.9.3 <b>Swim La</b>	ke Dock & Beach - upgrades	1	LS	30	2	28	\$6,500	\$6,067
7.4.1 <b>Sloped N</b>	1etal Roofs - replace	33	sQ	40	12	28	\$28,500	\$19,950
7.4.2 <b>Low Slo</b>	ped Roofs - replace	17	sq	20	18	2	\$20,430	\$2,043
8.3.1 Garage I	Doors - replace	3	EA	20	20	-	\$4,590	\$0
11.1.1 Backhoe	- replace	1	EA	25	2	23	\$58,040	\$53,397
11.1.2 Truck - r	eplace	1	EA	10	1	9	\$39,240	\$35,316
11.1.3 Tractor	Mower - replace	1	EA	20	0	20	\$6,000	\$6,000
11.1.4 Road Sw	reeper - replace	1	LS	20	0	20	\$4,700	\$4,700
12.1.1 Clubhou	se - repair contingency	1	LS	10	5	5	\$26,800	\$13,400
12.1.2 <b>Commo</b>	Buildings - repair contingency	1	LS	10	5	5	\$21,500	\$10,750
15.1.1 Water M	eters - replace	218	EA	20	12	8	\$58,150	\$23,260
15.1.2 <b>Valves -</b>	replace	1	LS	5	5	-	\$20,800	\$0
15.2.1 Water T	owers - circulation system	2	EA	30	28	2	\$23,070	\$1,538
15.2.2 <b>Water T</b>	owers - repair	2	EA	50	48	2	\$14,660	\$586
15.2.3 Reservo	r & Dam - maintenance	1	LS	10	8	2	\$20,800	\$4,160
15.2.4 Mixer Ur	it & Storage Tanks - maintenance	1	LS	20	19	1	\$25,900	\$1,295
15.3.1 Clearwe	I - replace	1	LS	5	2	3	\$5,200	\$3,120
15.4.1 Treatme	nt Plant - repair	1	LS	20	10	10	\$82,600	\$41,300
15.5.1 <b>Water M</b>	ains - repair	17849	LF	10	5	5	\$87,920	\$43,960
15.6.1 <b>Septic S</b>	ystems - replace	2	EA	15	10	5	\$24,310	\$8,103
16.5.1 Generate	or - replace	1	EA	45	10	35	\$13,940	\$10,842
		1		FULLY FUN	DED BALANCE	1	Total	\$378,746

#### **CURRENT RESERVE BALANCE = \$437,803**

PERCENT FULLY FUNDED = 116%

July 2, 2018

**ABBREVIATION KEY** 

EA each BLDG building(s) FIXT fixture(s) LF linear foot LS lump sum SF square feet SQ roofing square SY square yard ZN zone



#### **SUPPLEMENTAL BUDGET INFORMATION (SBI)**

RCW 64.38.025 states that within thirty days after adoption of any proposed budget for the association, the board of directors shall provide a summary of the budget to all the unit owners and shall set a date for a meeting of the unit owners to consider ratification of the budget not less than fourteen nor more than sixty days after mailing of the summary. As part of the summary of the budget to all owners, the board of directors shall disclose the supplemental budget information as outlined in RCW 64.38.025 section (4), which we refer to as the Supplemental Budget Information (SBI). Below is a sample of the SBI we will compile when the association is ready to provide a summary of the budget to the unit owners. Please contact RCL one week before the Association plans on sending the budget summary to unit owners and we will issue a completed SBI at no additional charge within one year of issuing the draft of the reserve study report.

#### Supplemental Budget Information on Reserves for Sample Association

In Compliance with RCW 64.34.308 & RCW 64.38.025 April 4, 2018

Funding Info	ormation
\$19,000	Proposed annual contribution to reserves for the fiscal year ending in 2019 per the budget.
\$80,000	Projected fiscal year end 2018 reserve balance per the budget.
\$17,800	Budgeted annual contribution to reserves for the current fiscal year ending in 2018.

#### Information from the Most Recent Reserve Study

65%	Percent fully funded as of the date of the most recent reserve study.
\$19,700	Recommended annual contribution to reserves for the fiscal year ending in 2019.
Threshold	Type of funding plan used for recommended annual funding per the most recent reserve study.
\$90,563	Projected fiscal year end 2018 reserve balance per the most recent reserve study.
Yes	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*?

<sup>\*</sup> We assume the current contribution rate will be adjusted annually for inflation. Not doing so may cause a failure to meet obligations

#### Anticipated Reserve Funding Shortfalls Over the Next 30 Years

\$17,800 Cu	rrent Fiscal Ye Contribution	ar Reserve	\$19,000 P	roposed Annu Contribution	al Reserve
Fiscal Year End	Projected Funding Shortfall	Average Shortfall Per Unit Per Year	Fiscal Year End	Projected Funding Shortfall	Average Shortfall Per Unit Per Year
	None	X	UK	None	

#### Proposed Additional Regular or Special Assessment for Fiscal Year End 2019

No	Is additional funding (Regular or Special Assessment) planned in the proposed budget?				
N/A	Amount of additional Regular or Special Assessment	The purpose for the additional funding:			
N/A	Average amount per unit per year.	N/A			
N/A	Average amount per unit per month.				
N/A	Date assessment is due.				

#### Comparison of Fiscal Year End Projections for Next Five Years

	17,800 Currer erve Contribut			00 Recomme erve Contribu				\$19,000 Proposed Reserve Contribution	
Fiscal Year End	Reserve Account Balance	Percent Fully Funded	Fiscal Year End	Reserve Account Balance	Percent Fully Funded	Fiscal Year End	Reserve Account Balance	Percent Fully Funded	
2019	\$91.070	72%	2019	\$92.970	73%	2019	\$92,270	73%	
2020	\$102,582	73%	2020	\$106,458	75%	2020	\$105,030	74%	
2021	\$116,924	74%	2021	\$122,854	78%	2021	\$120,669	76%	
2022	\$123,895	74%	2022	\$131,961	79%	2022	\$128,990	77%	
2023	\$128,184	73%	2023	\$138,469	79%	2023	\$134,680	77%	

Contributions and expenses are both Inflated for the 5 Year Projection calculations.

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Section 326 of the WUCIOA requires that the budget disclosure include:

- (d) The current amount of regular assessments budgeted for contribution to the reserve account;
- (e) A statement of whether the association has a reserve study that meets the requirements of section 331 of this act and, if so, the extent to which the budget meets or deviates from the recommendations of that reserve study; and
- (f) The current deficiency or surplus in reserve funding expressed on a per unit basis The required information will be provided at no additional charge with our standard SBI.



#### Supplemental Budget Information on Reserves for Sample

In Compliance with the Washington Uniform Common Intersest Act (WUCIOA) Section 326 (d) through Section 326 (f) July 2, 2018

Funding Info	Funding Information						
Yes	Does the Association have a reserve study that complies with Section 331 of the WUCIOA?						
Yes	Does the Association have a reserve study that complies with RCW 64.38.070 of the Homeowners' Association Act?						
\$45,000	Current amount of regular reserve assessments budgeted for annual contribtion to the reserve account.						
\$45,000	Recommended annual contribution to reserves for the fiscal year ending in 2019.						
\$0	Proposed annual contribution to reserves for the fiscal year ending in 2019 per the budget.						

\$45,000 The current surplus in reserve funding calculated by subtracting the proposed funding from the recommended funding.

\$112.78 Average surplus in reserve funding per unit.

#### Current Surplus in Reserve Funding on a per Unit Basis

Unit Number	Allocated Interest	Surplus per Unit	Unit Number	Allocated Interest	Surplus per Unit
101	5%	\$2,250	101	5%	\$2,250
102	5%	\$2,250	102	5%	\$2,250
103	5%	\$2,250	103	5%	\$2,250
104	5%	\$2,250	104	5%	\$2,250
105	5%	\$2,250	105	5%	\$2,250
106	5%	\$2,250	106	5%	\$2,250
107	5%	\$2,250	107	5%	\$2,250
108	5%	\$2,250	108	5%	\$2,250
109	5%	\$2,250	109	5%	\$2,250
110	5%	\$2,250	110	5%	\$2,250
111	5%	\$2,250	111	5%	\$2,250
112	5%	\$2,250	112	5%	\$2,250
113	5%	\$2,250	113	5%	\$2,250
114	5%	\$2,250	114	5%	\$2,250
115	5%	\$2,250	115	5%	\$2,250
116	5%	\$2,250	116	5%	\$2,250



#### **DISCLOSURES**

- Reserve Consultants LLC 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. No shareholder or employee of Reserve Consultants LLC has any interest in, or obligation to, any construction company, management company, or development entity that creates condominiums.
- Reserve Consultants LLC has been a member of the Community Associations Institute since about 1993, and has worked with a variety of management companies, associations and other types of clients in Washington State.
- 4. 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 LLC (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.
- Unless otherwise noted, all reserve components are assumed to meet the building code requirements in force at the time of construction. Any on-site inspection should not be considered a project audit or quality inspection.
- 6. Conclusions reached in this report assume responsible ownership and competent management of the property. Information provided by others is believed to be reliable. Information provided by others was not audited; we assume no responsibility for accuracy thereof.
- 7. The reserve study is a reflection of information provided to the consultant and assembled for the association's use, not for the purpose of performing an audit, quality/forensic analyses or background checks of historical record.



#### **APPENDIX - GLOSSARY OF TERMS**

Allocated Interests - the following interests allocated to each unit: (a) In a condominium, the undivided interest in the common elements, the common expense liability, and votes in the association; (b) In a cooperative, the common expense liability, the ownership interest, and votes in the association; and (c) In a plat community and miscellaneous community, the common expense liability and the votes in the association, and also the undivided interest in the common elements if owned in common by the unit owners rather than an association. WUCIOA §102 (2)

Assessment - all sums chargeable by the association against a unit, including any assessments levied pursuant to section 317 of WUCIOA, fines or fees levied or imposed by the association pursuant to this chapter or the governing documents, interest and late charges on any delinquent account, and all costs of collection incurred by the association in connection with the collection of a delinquent owner's account, including reasonable attorneys' fees. WUCIOA \$102 (3)

Association or Unit Owners Association - the unit owners association organized under section 301 of WUCIOA and, to the extent necessary to construe sections of this chapter made applicable to common interest communities pursuant to section 117, 119, or 120 of WUCIOA, the association organized or created to administer such common interest communities. WUCIOA \$102 (4)

Baseline Funding Plan – A reserve contribution rate that is constant, increasing with inflation, to provide funds for all anticipated reserve expenses so that no special assessments are required for 30 years, but with no excess funds some years.

**Board** - the body, regardless of name, designated in the declaration, map, or organizational documents, with primary authority to manage the affairs of the association. WUCIOA §102 (6)

**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), and the National Fire Protection Association Standards (NFPA). These are usually amended slightly by each city or county.

**Building Component** – see "Reserve Component".

**Component Number** - A number assigned to each building component that allows grouping of like components. The numbers are based roughly on the Construction Specification Institute system.

Common Elements - (a) In a condominium or cooperative, all portions of the common interest community other than the units; (b) In a plat community or miscellaneous community, any real estate other than a unit within a plat community or miscellaneous community that is owned or leased either by the association or in common by the unit owners rather than an association; and (c) In all common interest communities, any other interests in real estate for the benefit of any unit owners that are subject to the declaration. WUCIOA §102 (7)

**Common Expense** - any expense of the association, including allocations to reserves, allocated to all of the unit owners in accordance with common expense liability. WUCIOA \$102 (8)

Common Expense Liability - the liability for common expenses allocated to each unit pursuant to section 208 of WUCIOA. WUCIOA \$102 (9)

Common Interest Community - real estate described in a declaration with respect to which a person, by virtue of the person's ownership of a unit, is obligated to pay for a share of real estate taxes, insurance premiums, maintenance, or improvement of, or services or other expenses related to, common elements, other units, or other real estate described in the declaration. "Common interest community" does not include an arrangement described in section 123 or 124 of WUCIOA. A common interest community may be a part of another common interest community. WUCIOA §102 (10)



**Contribution Rate** - in a Reserve Study as described in RCW64.38, 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 64.38.010 (6)

**Constant Dollars** - costs and contributions are provided in today's dollars, no matter how far in the future they occur. Inflation and interest are not factored in.

**Effective Age** - the difference between the useful life and the remaining useful life. RCW 64.38.010 (7) & WUCIOA \$102 (21)

Full Funding Plan - a reserve funding goal of achieving one hundred percent fully funded reserves by the end of the thirty-year study period described under section 331 of WUCIOA, in which the reserve account balance equals the sum of the estimated costs required to maintain, repair, or replace the deteriorated portions of all reserve components. WUCIOA §102 (25)

Fully Funded Balance - 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 64.38.010 (9) & WUCIOA \$102 (26)

**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 - a portion of the common elements allocated by the declaration or by operation of section 203 (1)(b) or (2) of WUCIOA for the exclusive use of one or more, but fewer than all, of the unit owners. WUCIOA §102 (30) Unit owners may be responsible for the cost to repair and maintain limited common elements, so those costs may not appear in a Reserve Study.

**Maintenance Cycle** – the frequency of maintenance on a component to reach or extend its Useful Life. Often shorter than the full "Useful Life" for repairs that occur in lieu of complete replacement.

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

Nominal Reserve Costs – the current estimated total replacement costs of the reserve components are less than fifty percent of the annual budgeted expense of the association, excluding contributions to the reserve funds, for a condominium or cooperative containing horizontal unit boundaries and less than seventy five percent of the annual budgeted expenses of the association, excluding contributions to the reserve fund for all other common interest communities. WUCIOA \$102 (34)

**Percent Fully Funded** – The percentage of the "Fully Funded Balance" which the current condominium Reserve Account actually has in it.

**RCW** - the Revised Code of Washington. RCW 64.38 is the Washington Homeowners' Act, the statute that governs homeowners' associations formed prior to July 1, 2018.

Remaining useful life - the estimated time, in years, that a reserve component can be expected to continue to serve its intended function. RCW 64.38.010 (14) or before a reserve component will require major maintenance, repair or replacement to perform its intended function. WUCIOA \$102 (44)

**Replacement Cost** - the current cost of replacing, repairing, or restoring a reserve component to its original functional condition. RCW 64.38.010 (15) or the estimated total cost to maintain, repair, or



replace a reserve component to its original functional condition. WUCIOA §102 (45)

**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 - common elements whose cost of maintenance, repair, or replacement is infrequent, significant, and impractical to include in an annual budget. RCW 64.38.010 (16) or a physical component of the common interest community which the association is obligated to maintain, repair, or replace, which has an estimated useful life of less than thirty years, and for which the cost of such maintenance, repair or replacement is infrequent, significant, and impractical to include in an annual budget. WUCIOA §102 (46)

**Reserve Contribution Rate** - 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 (<a href="www.caionline.org">www.caionline.org</a>) for Reserve Study providers.

**Reserve Study** - A physical assessment of a building and a subsequent report which estimates 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 the 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 64.38. RCW 64.38.010 (17) and sections 330 and 331 of WUCIOA. For the purposes of WUCIOA,

"independent" means a person who is not an employee, officer, or director, and has no pecuniary interest in the declarant, association, or any other party for whom the reserve study is prepared. WUCIOA \$102 (47)

**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 insufficient money has been saved.

Threshold Funding (contribution rate) - 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.

**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 building 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, in years, that a reserve component can be expected to serve its intended function. RCW 64.38.010 (20) or the estimated time during which a reserve component is expected to perform its intended function without major maintenance, repair or replacement. WUCIOA §102 (59)

Year End Reserve Balance or Reserve Fund 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 and 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 building component and its yearly cost to maintain/repair over the next 30 years. It also lists the annual reserve fund balance, reserve contributions, reserve expenses and bank interest earned on any reserve fund balance.



#### **APPENDIX - EVALUATORS' CREDENTIALS**

#### Denise Dana

#### Principal

Reserve Consultants LLC

B.S. Education, M. Architecture

Washington Registered Architect, #8702

LEED Accredited Professional

Reserve Specialist, #291

#### Mahria Sooter

#### Associate

Reserve Consultants LLC

B.A. Springfield College, MA

Denise Dana first obtained licensure as an Architect and became a LEED accredited professional in 2003. She is currently a licensed Architect in the State of Washington and is certified by the National Council of Architectural Registration Boards. With over fifteen years of experience in architecture, her resume includes a variety of project types ranging from residential to corporate. She has worked through all phases of construction including design development, construction documentation and construction administration with project budgets varying from a few thousand dollars to over sixty million dollars. Denise has been conducting reserve studies since joining Reserve Consultants in 2008; in 2011 she was recognized as a "Reserve Specialist" by the Community Associations Institute.

Mahria joined Reserve Consultants in 2016. Mahria holds a Bachelor of Science degree from Springfield College, MA. She has over 20 years of experience with marketing and various aspects of integrated communication in the construction industry. Mahria excels at listening to clients' goals and providing attainable solutions to their needs. Her attention to detail lends well to providing clear and concise recommendations that clients can utilize to make informed decisions.