FULL RESERVE STUDY

JAMES LANDING
JAMESTOWN, NC

Prepared for:
JAMES LANDING PROPERTY OWNERS ASSOCIATION
&
GOLDEN PROPERTY MANAGEMENT

Prepared by:

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1.0 INTRODUCTION

The James Landing Property Owners Association authorized Criterium–Giles Engineers to conduct a Reserve Fund Study for the James Landing community located in Jamestown, North Carolina. Studies of this nature are important to ensure a community has sufficient funds for long-term, periodic capital expenditure requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the Association in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the home owners.

Typically, a community association has two broad cash requirements: the general operating reserves and the capital repair and replacement reserves. In this report, we will focus on those items falling under the capital repair and replacement reserve criteria. We have projected a capital repair and replacement reserve for twenty (20) years. The first ten years are the most reliable. Such a study should be updated every five years.

This report is structured to analyze components of the community for which the Association is responsible and to assess a useful expected life and useful remaining life to those components. The anticipated scheduled repair or replacement of the component and the anticipated expense for the activity are then analyzed in conjunction with the current capital reserves funding program for the community. Funding program recommendations are made with the objective of limiting substantial cash excesses while minimizing financial burdens that can result from significant cash inadequacies.

This report is intended to be used as a tool to determine reserve fund allocation requirements for the community, to manage future Association obligations, and to inform the community of future financial needs in general. The report that follows has been prepared from the perspective of what an owner of this property would benefit from knowing. Some items, beyond those of immediate concern, may be discussed. Therefore, the report should be read in its entirety in order to fully understand all of the information that has been obtained.

2.0 EXECUTIVE SUMMARY

James Landing is a Property Owners Association that consists of the shopping center located at the corner of Wendover Avenue and Piedmont Parkway, the apartment complex located along Crowne Lake Circle, and the individual homeowners from the James Landing neighborhood.

The association has responsibility for the two lakes, dams, and associated spillways, the wood structure in Lake A, fencing and walls adjacent to the lakes, and entrance signage along Piedmont Parkway.

The common areas and grounds are generally in good condition. Based on our evaluation, the current level of funding is not projected to maintain a positive balance through the term of this study. We have provided recommendations for annual reserve contribution schedules that provide sufficient funding to meet capital expenditure requirements in the next twenty years. A more detailed analysis of the reserve fund has been provided in Appendix A.

Some significant expenditures are expected over the term of the study. Some of the more notable examples are listed below:

- Sediment mapping and dredging-type repairs
- Dam and spillway repairs
- Replace sections of concrete spillway

There are, of course, other capital expenditures to be expected over the next twenty years. Those items that will require attention are discussed later in this report. For your convenience, we have prepared the following summary of the condition of the major systems of the property.

PROPERTY SUMMARY			
SYSTEM	**CONDITION**	**ACTIVITY REQUIRED**	**ANTICIPATED YEAR OF ACTIVITY**
SITE			
Wood dock	F	replace	2022
Concrete spillway/dam	G/F	replace sections	2019-2031
Drainage systems	G/F	repair/improve	2016-2031
Lake A & B	G	repair/dredge	2016-2033
BUILDING EXTERIOR			
AMENITIES			

Table 2.1 Property Summary

3.0 PURPOSE & SCOPE

3.1 Purpose

The purpose of this study is to perform a reserve fund analysis and to determine a capital needs plan. It is intended to be used as a tool for the James Landing Property Owners Association in determining the allocation requirements into the reserve fund in order to meet future anticipated capital expenditures for the community.

This report forecasts obligations for the community twenty years into the future. It should be noted that events might occur that could have an effect on the underlying component or system useful life assumptions used in this study. Likewise, inevitable market fluctuations can have an impact on component or system replacement and repair costs. Therefore, a study such as this should be updated from time to time, usually on a three to five-year cycle, in order to reflect the most accurate needs and obligations of the community.

3.2 Scope

This study has been performed according to the scope as generally defined by the James Landing POA, Criterium-Giles Engineers Inc., Golden Property Management, and the standards of the Community Associations Institute. The findings and recommendations are based on interviews with the community's management personnel; a review of available documents; and an investigation of the site.

The "Cash Flow Method" of calculating reserves has been utilized, whereby contributions to the reserve fund are designed to offset the variable annual expenditures. Funding alternates are recommended which are designed to achieve a "Baseline Funding" goal by maintaining a positive balance for the term of the study.

The guidelines used to determine which physical components within the community are to be included in the component inventory are based on the following general criteria:

1. The component must be a common element, or otherwise noted to be the responsibility of the Association to replace.
2. The component must have an estimated remaining useful life of twenty years or less. As the site ages, additional components may need to be added.
3. The funding for replacement should be from one source only, not funded from another area of the budget or through a maintenance contract.
4. The cost of replacement should be high enough to make it financially unsound to fund it from the operating budget.

Our reserve study analysis included evaluating the following association property:

- **Buildings:** N/A
- **Mechanical Systems:** N/A
- **Site and Grounds:** The POA is responsible for the two lakes and

associated dams and spillways, the wooden dock in Lake A, drainage systems, fencing, and site walls and signage adjacent to the shopping center.

The above list was obtained from the site inspection and discussions with the management firm prior to the inspection.

This study estimates the funding levels required for maintaining the long-term viability of the facility. Our approach involves:

1. Examining association managed equipment, building and site facilities.
2. Predicting their remaining service life and, approximating how frequently they will require repair or replacement.
3. Estimating repair or replacement costs (in 2013 dollars) for each capital item.
4. Using data developed in Steps 1, 2 and 3 to project Capital Reserve balances for Years 1 through 20.

The statements in this report are opinions about the present condition of the subject community. They are based on visual evidence available during a diligent investigation of all reasonably accessible areas falling under the responsibility of the Association. We did not remove any surface materials, perform any destructive testing, or move any furnishings. This study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope than this effort. For additional limitations, see Section 8.0.

3.3 Sources of Information

Onsite inspections of the property occurred on the following date:

- January 21, 2013

The following people were interviewed during our study:

- Greg Domingue, Property Manager, Golden Property Management
- Board members at 3/5/13 meeting

The following documents were made available to us and reviewed:

- Guilford County tax records
- 2012 POA budget
- Uwharrie Lake Emergency Action Plan

We based our cost estimates on some or all of the following:

- R.S. Means
- Our data files on similar projects
- Local contractor estimates

For your reference, the following definitions may be helpful:

Excellent: Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

Good: Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

Fair: Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.

Poor: Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

Adequate: A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, and/or conforms to standard construction practices.

All ratings are determined by comparison to other buildings and sites of similar age and construction type. Further, some details of workmanship and materials will be examined more closely in higher quality buildings where such details typically become more relevant.

All directions (left, right, rear, etc.), when used, are taken from the viewpoint of an observer standing in front of a building and facing it.

Repair/Replacement Reserves - Non-annual maintenance items that will require significant expenditure over the life of the buildings and site improvements. Included are items that will reach the end of their estimated useful life during the course of this forecast, or, in the opinion of the investigator, will require attention during that time.

4.0 DESCRIPTION

The James Landing Community includes two lakes surrounded by a neighborhood shopping center to the north, multi-family housing to the west, and single family homes to the south and east. The community was built in the 1990s according to Guilford County tax records.

For the purposes of this study, we will denote Uwharrie Lake (upper lake) as “Lake A” and the lower lake as “Lake B.”

The association is responsible for the signage and wall on the west side of

Piedmont Parkway south of Wendover Avenue, and the wall on the east side of Piedmont Parkway. The association is also responsible for the dams, lakes, and associated drainage structures.

5.0 OBSERVATIONS

The following key observations were made about the current condition of the more significant and costly common elements of the property.

Site and Grounds

The signage at the entrance to the community near the intersection of Piedmont Parkway and Wendover Avenue is in generally good condition. The structure is constructed out of painted precast panels with a stone veneer, copper roof, and composite inlay plaques. The walls are supported by a block structure with stone veneer. Over time, the freeze thaw cycles will crack the mortar beds and loosen the stones. The lettering and plaques will fade from sunlight exposure and require replacement. We have included funds to paint the walls, replace the composite plaques and lettering, and re-point the mortar joints on the walls and signage on a 15 year cycle beginning in 2024.

There is an existing wooden dock with fixed supports located along the western side of the dam for Lake A. At the time of inspection, the dock was underwater due to the recent rain events. However, assuming the visible elements are consistent for the entire structure, it will likely require replacement in approximately 8 years. At that time, we recommend replacing the dock with a floating structure that will allow use immediately after rain events. Funds have been included for this replacement in 2022 and on a 30-year cycle thereafter. In the interim, individual deck boards may need to be replaced due to buckling or general deterioration. It is assumed that these items will be funded through a general operating budget.

There is an existing wood security fence with gate on the east side of the dam adjacent to Peninsula Drive. Assuming the fence is painted as needed to maintain its aesthetic quality, the fence should last approximately 15-20 years. In order to allow flexibility in fence maintenance, we have included funds to replace sections of the fence on a 10-year cycle beginning in 2021.

A timber retaining wall near the security gate along Peninsula Drive was recently installed to allow adequate access. These types of walls have a typical useful life of approximately 15 years. We have included funds to replace the wall in 2025.

Lake A has three methods for water removal: a low flow orifice, a principal spillway, and an emergency spillway. Lake B has two methods for water removal, a combined primary/emergency spillway and a drawdown orifice with valve. The Lake A low flow orifice was completely submerged at the time of inspection; however, the handwheel attached to the control valve was observed. We recommend following the maintenance schedule in the Emergency Action Plan that was provided to

us for review. As part of the maintenance plan, the valve is to be verified that it is in working condition twice per month in addition to removing any sediment and debris from the low flow orifice and principal spillway. Since minimal flows were observed at the outlet pipe for the low flow orifice, it is possible that it could be partially clogged or damaged. Assuming annual maintenance is performed on the low flow outlet device, we estimate that the valve should provide approximately 30 years of service. A similar valve is utilized for the drawdown orifice for Lake B and was operable at the time of inspection. We have included funds to replace both valves and components on a 30 year cycle beginning in 5 years. This will likely involve lowering the pond elevation to a safe level for construction by either siphon or the drawdown orifice.

The concrete inlet used as the principal spillway should provide 40 years or more of trouble free service. However, monthly maintenance should be performed to remove any accumulated trash and debris from the trash rack.

The emergency spillway for Lake A is an approximately 45-50 feet wide vegetated spillway that leads to the emergency spillway for Lake B. The combined spillway is constructed out of concrete and is in generally good condition. In addition, the dam to Lake B is supported by a buttressed concrete wall. The sealant in the concrete joints of the emergency spillway have come apart allowing water to infiltrate behind the sloped banks of the spillway. Over time, cracks and deterioration of the concrete emergency spillway may occur. We have included funds to replace sections of the concrete emergency spillway, repair sections of the concrete dam (as needed), and make any other minor repairs such as replacing joint sealant. The cycle for these funds is every 6 years beginning in 2019. If these funds are not used during the cycle, it is suggested that the funds continue to accumulate, as it is possible that large sections of the dam may require replacement beyond the term of this study.

During the investigation, several areas of exposed earth along the shoreline and top of dam were observed. These items should be continually maintained by the landscape company in order to prevent subsidence of the slopes and embankments. In certain instances, adequate vegetation cannot be achieved due to a variety of reasons including poor subsoil conditions, inadequate sun exposure, excessive slopes, etc. In these cases, slope stability will take other forms, including geotextile fabrics and rip rap armoring. We have included funds for drainage system improvements on a 3 year cycle which includes armoring shorelines, installing new rip rap, and refurbishing existing rip rap swales adjacent to the lakes.

Per discussions with the Community Manager and several lawn chairs observed surrounding the lakeshore, the Community actively uses the lakes for recreation purposes. In order to preserve this function, we recommend hiring a pond or lake management company perform sediment mapping of the bottom of the lakes to determine the existing topography and sediment depths as a baseline case. Depending on the sediment that has already accumulated, the lake management company should repeat the procedure to investigate the volume of accumulated sediment, and the translocation of sediments within the lake. Using this information, an appropriate dredging area and frequency plan can be incorporated into the

lake management. We have included funds for these items assuming investigations are performed on a 5-year cycle and dredging is performed on approximate 15% of the water surface area. Due to the difference in size, we have assumed that dredging for Lake A will occur on a 25-year cycle and dredging for Lake B will occur on a 10-year cycle. During dredging, the lake levels will be drawn down to allow excavation and removal with standard construction equipment.

Notwithstanding the sediment accumulation study described above, we have discussed and observed the localized sedimentation at the outlet points from two streams. In Lake A, the sedimentation is occurring in the cove behind 3213 Peninsula Drive; in Lake B, it is occurring behind 3108 Camp Ranger Lane. We understand that in some places, the sediment was removed within the last 2-3 years. Please note that this will likely continue indefinitely, as a primary function of streams and estuaries is to carry the sediment load further downstream. While more frequent sediment removal cycles could be used, it must be weighed against the inconvenience that will be caused to the homeowners who will be impacted by the construction equipment. For this reason, alternative construction methods for Lake B were investigated which are discussed below.

Option 1: It is our understanding that the driveway and side yard of 3108 Camp Ranger Lane was used previously to access the sedimentation area. We have assumed this option as the preferred funding alternative as it is significantly less costly to the Association in general. Included in this option is the ability to completely reconstruction the concrete driveway and re-sod the lawn areas. After drawing down the lake levels to access the lake bottom, construction equipment would excavate and haul off all accumulated sediment.

Option 2: Construction equipment would drive across the top of the dam of Lake A, down the emergency spillway, and construct a temporary path across the concrete spillway. The pond elevation would be lowered such that excavation equipment could drive along the lake bed. It is assumed that the lake bed would contain significant expansive clays and silts which would require removal and replacement with a temporary access road. Sediment would be excavated and hauled away using the access path described above. Per discussions with local Contractors, the estimate for this option was approximately $100,000.

Option 3: Dredging by floating barge was typically seen as unfeasible due to the high cost.

We recommend consulting with a licensed Geotechnical Engineer to evaluate the existing dam and provide guidance on the potential major improvements that may be required over the life of the structure. They should be informed of the heavy equipment that could potentially traverse the dam as part of the dredging operation in order to specify the methods and provisions for construction. Without having the benefit of a Geotechnical Engineer's evaluation as to the current integrity, we have assumed that only moderate maintenance and improvements will be required. At such time as a Geotechnical Report becomes available, we

recommend modifying the funding allowance to account for any increase or decrease that may be necessary.

6.0 RESERVE FUND ANALYSIS

Using software developed by Criterium Engineers and KPMG Peat Marwick, we have analyzed capital reserves draw-down for the projected capital expenditures to determine the amount needed. The following is a projected reserve fund analysis for non-annual items as discussed in the report. This projection takes into consideration a reasonable return on invested moneys and inflation. Please review this thoroughly and let us know of any changes that may be desired.

The intent of this reserve fund projection is to help the Association develop a reserve fund to provide for anticipated repair or replacements of various system components during the next twenty years.

The capital items listed are those that are typically the responsibility of the Association and are derived from a list provided the Association with several items added as a result of the inspection. However, association by-laws vary, and therefore, which components are the responsibilities of the owner and which are the responsibilities of the Association can vary. The Association should confirm that the items listed should be financed by the reserve fund.

This projection provides the following:

- An input sheet that defines all the criteria used for the financial alternatives, including the assumed inflation rate of 3% annually and rate of return on deposited reserve funds of 2.5% annually.

- A table that lists anticipated replacement and/or repair items complete with estimated remaining life expectancies, projected costs of replacement and/or repair, a frequency in years of when these items require replacement and/or repair, and a projection based on this frequency.

- A table and graph that represent end of year balances versus capital expenditures based on your current funding program and reserve balances, and alternatives to your current program. The provided graphs illustrate what effects the funding methods will have over the presented twenty-year period versus the anticipated capital expenditures.

- Note that based on our developed list of capital items and taking inflation into account, the current funding level is not adequate.

- The Association should bear in mind that unanticipated expenditures can always arise and maintenance of a significant reserve fund balance can be viewed as a way to avoid special assessments.

We have included alternatives to your current reserve funding program and recommend that the board adopt an alternative that best reflects the objectives of the community. In summary they are as follows:

Current Reserve Funding Rate: $10,000/year
Current Reserve Balance: $53,328 (projected January 2014 balance)

- **Alternative 1:** Beginning in January of 2014, increase the reserve funding to $25,500 per year and maintain this contribution rate for the next 20 years. This alternative is projected to maintain a healthy reserve fund balance for the next 20 years.

- **Alternative 2:** Beginning in January of 2014, increase the reserve funding to $15,000 per year. Then, increase the reserve fund contribution rate by 8% annually for the next 10 years. This alternative is projected to maintain a healthy reserve fund balance for the next 20 years

- **Alternative 3:** We have not provided an alternative that incorporates special assessments. Special assessments are not a preferred method of funding reserves.

Please note that the reserve fund study does not include typical annual maintenance items. Our assumption is that you already have an annual operating budget that provides for these typical, repetitive items. This includes miscellaneous repairs, lawn and grounds maintenance, routine minor painting, etc. We have focused on those significant, non-annual items where careful financial planning is important.

Finally, please note that the estimates we have developed are based on 2013 dollars. Our reserve fund study does adjust for an estimated annual inflation and a given return on investment assuming that the indicated fund balances are maintained.

7.0 CONCLUSION

The alternative provided above is projected to provide sufficient funding to meet estimated capital expenditures during the next twenty years. Further detail of the reserve fund analysis is provided in Appendix A.

8.0 LIMITATIONS

The observations described in this study are valid on the date of the investigation and have been made under the conditions noted in the report. We prepared this study for the exclusive use of the James Landing Property Owners Association. Criterium-Giles Engineers Inc. does not intend any other individual or party to rely upon this study without our express written consent. If another individual or party relies on this study, they shall indemnify and hold Criterium-Giles Engineers Inc. harmless for any damages, losses, or expenses they may incur as a result of its use.

This study is limited to the visual observations made during our inspection. We did not remove surface materials, conduct any destructive or invasive testing, move furnishings or equipment, or undertake any digging or excavation. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of the investigation. We did not

undertake to completely assess the stability of the buildings or the underlying foundation soil since this effort would require excavation and destructive testing. Likewise, this is not a seismic assessment.

We did not investigate the following areas:

- Buried utilities or infrastructure
- Concealed structural members or systems
- Unit interiors

We do not render an opinion on uninvestigated portions of the community.

We did not perform any computations or other engineering analysis as part of this evaluation, nor did we conduct a comprehensive code compliance investigation. This study is not to be considered a warranty of condition, and no warranty is implied. The appendices are an integral part of this report and must be included in any review.

Members of the Criterium-Giles Engineers team working on this reserve study are not members of, or otherwise associated with the association. Criterium-Giles Engineers has disclosed any other involvement with the association that could result in conflicts of interest.

Information provided by the official representative of the association regarding financial, physical, quantity, or historical issues, will be deemed reliable by Criterium-Giles Engineers. The reserve balance presented in the Reserve Study is based upon information provided and was not audited. Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection. Criterium-Giles Engineers is not aware of any additional material issues which, if not disclosed, would cause a distortion of the association's situation.

In our Reserve Fund Analysis, we have provided estimated costs. These costs are based on our general knowledge of building systems and the contracting and construction industry. When appropriate, we have relied on standard sources, such as Means Building Construction Cost Data, to develop estimates. However, for items that we have developed costs (e.g.: structural repairs), no standard guide for developing such costs exists. Actual costs can vary significantly, based on the availability of qualified contractors to do the work, as well as many other variables. We cannot be responsible for the specific cost estimates provided.

We have performed no design work as part of this study, nor have we obtained competitive quotations or estimates from contractors as this also is beyond the scope of the project. The actual cost to remedy deficiencies and deferred maintenance items that we have identified may vary significantly from estimates and competitive quotations from contractors.

If you have any questions about this study or the reserve fund analysis, please feel free to contact us. Thank-you for the opportunity to be of assistance to you.

Respectfully submitted,

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Criterium-Giles Engineers Inc.

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Project Manager
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Appendix A: RESERVE FUND PROJECTIONS

Itemized Worksheet

Capital Item To Be Replaced	Quantity	Unit cost	Reserve Requirement (*)	Beginning Balance	Frequency (yrs**)	Remaining Life (yrs)	Reserve Funding Required Monthly	Reserve Funding Required Annual	Full Funding Balance	Information Source
Site										
Entrance signage maintenance	1 LS	$3,500.00	$3,500.00	$779.67	15	10	$22.67	$272.03	$1,166.67	
Replace wood dock	575 SF	$30.00	$17,250.00	$8,453.81	30	8	$91.63	$1,099.52	$12,650.00	
Replace wood security fence	65 LF	$27.50	$1,787.50	$358.37	10	7	$17.01	$204.16	$536.25	1/2 every 10 years
Replace timber retaining wall	60 SF	$32.00	$1,920.00	$342.16	15	11	$11.95	$143.44	$512.00	
Replace drawdown orifice valves/components	1 LS	$4,500.00	$4,500.00	$2,506.07	30	5	$33.23	$398.79	$3,750.00	
Replace sections of concrete spillway/dam	110 SY	$70.00	$7,700.00	$857.63	6	5	$114.04	$1,368.47	$1,283.33	10% every 6 years
Drainage system improvements	1 LS	$6,000.00	$6,000.00	$1,336.57	3	2	$194.31	$2,331.71	$2,000.00	
Sediment mapping	1 LS	$20,000.00	$20,000.00	$13,365.71	5	0	$0.00	$0.00	$20,000.00	
Dredge Lake A	1 LS	$85,000.00	$85,000.00	$13,633.02	25	19	$313.01	$3,756.16	$20,400.00	
Dredge Lake B	1 LS	$35,000.00	$35,000.00	$11,694.99	10	5	$388.42	$4,661.00	$17,500.00	
Major dam repairs	1 All	$75,000.00	$75,000.00	$0.00	10	10	$625.00	$7,500.00	$0.00	
Building Exterior										
Building Interior										
Mechanical										
Amenities										
Other										
		Totals	$257,657.50	$53,328.00			$1,811.27	$21,735.29	$79,798.25	
		Total Over Term	$399,845.00							

* Costs are typically 10%±

** Reserve study is based on a 20 year projection of non-annual maintenance

Annual Expense By Year

Year:	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Site																
Entrance signage maintenance	0	0	0	0	0	0	0	0	0	0	3,500	0	0	0	0	0
Replace wood dock	0	0	0	0	0	0	0	0	17,250	0	0	0	0	0	0	0
Replace wood security fence	0	0	0	0	0	0	0	1,788	0	0	0	0	0	0	0	0
Replace timber retaining wall	0	0	0	0	0	0	0	0	0	0	0	1,920	0	0	0	0
Replace drawdown orifice valves/components	0	0	0	0	0	4,500	0	0	0	0	0	0	0	0	0	0
Replace sections of concrete spillway/dam	0	0	0	0	0	7,700	0	0	0	0	0	7,700	0	0	0	0
Drainage system improvements	0	0	6,000	0	0	6,000	0	0	6,000	0	0	6,000	0	0	6,000	0
Sediment mapping	20,000	0	0	0	0	20,000	0	0	0	0	20,000	0	0	0	0	20,000
Dredge Lake A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dredge Lake B	0	0	0	0	0	35,000	0	0	0	0	0	0	0	0	0	35,000
Major dam repairs	0	0	0	0	0	0	0	0	0	0	75,000	0	0	0	0	0
Building Exterior																
Building Interior																
Mechanical																
Amenities																
Other																
Total Costs	**20,000**	**0**	**6,000**	**0**	**0**	**73,200**	**0**	**1,788**	**23,250**	**0**	**98,500**	**15,620**	**0**	**0**	**6,000**	**55,000**
Total Costs Adjusted For 3% Inflation	**20,000**	**0**	**6,365**	**0**	**0**	**84,859**	**0**	**2,198**	**29,452**	**0**	**132,376**	**21,622**	**0**	**0**	**9,076**	**85,688**

Annual Expense By Year

Year:	2030	2031	2032	2033
Year Number:	17	18	19	20
Site				
Entrance signage maintenance	0	0	0	0
Replace wood dock	0	0	0	0
Replace wood security fence	0	1,788	0	0
Replace timber retaining wall	0	0	0	0
Replace drawdown orifice valves/components	0	0	0	0
Replace sections of concrete spillway/dam	0	7,700	0	0
Drainage system improvements	0	6,000	0	0
Sediment mapping	0	0	0	0
Dredge Lake A	0	0	0	85,000
Dredge Lake B	0	0	0	0
Major dam repairs	0	0	0	0
Building Exterior				
Building Interior				
Mechanical				
Amenities				
Other				
Total Costs	**0**	**15,488**	**0**	**85,000**
Total Costs Adjusted For 3% Inflation	**0**	**25,598**	**0**	**149,048**

General Information:

1 Organization: **James Landing**

2 Address: **Piedmont Parkway**
Jamestown, NC

3	Number of Units	**1**
4	Age of Building (in years)	**20**
5a	Study Period (in years)	**20**
5b	Normal Fiscal Year starts:	**January 1, 2014**
5c	Partial Fiscal Year starts:	**January 1, 2014**
5d	Partial Year Length:	**12 months**
6	Site Inspection Date	**January 21, 2013**
7	Reserve Funds at start	**$53,328**
8	Rate of Return on invested Reserve Funds (%)	**2.5%**
9	Inflation Rate (%)	**3.0%**

10 Current Funding Levels

Existing Funding Levels

		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Reserve Fund Contribution.....		$833	**$10,000**	**$833.33**	**$10,000.00**
	Years Out		**Total Annual**	**Per Unit**	
Planned Special Assessment.....	0		$0	$0	
Balance Computed.....	**($302,987)**				

11 Alternative Reserve Fund Contribution

Alternative 1 Increase to $25,500 per year

		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year).....		**$2,125**	**$25,500**	**$2,125.00**	**$25,500.00**
Monthly Amount, (Last Year).....		**$2,125**	**$25,500**	**$2,125.00**	**$25,500.00**
Balance Required Final Year.....		$28,314			
Special Assessments:	**Years Out**		Total/Year	Per Unit	
First Assessment.....	0		$0	$0	
Second Assessment.....	0		$0	$0	
Balance Computed.....	**$62,547**				

Alternative 2 Escalating Funding at 8% per Year

		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year).....		**$1,250**	**$15,000**	**$1,250.00**	**$15,000.00**
Monthly Amount, (Last Year).....		**$2,699**	**$32,384**	**$2,698.66**	**$32,383.87**
Balance Required Final Year.....		$28,314			
Base Escalation %.....	**8.00%**				
Special Assessments:	**Years Out**		Total/Year	Per Unit	
First Assessment.....	0		$0	$0	
Second Assessment.....	0		$0	$0	
Balance Computed.....	**$81,238**				

Alternative 3 Escalating Funding with Special Assessments **(NOT USED)**

		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year).....		**$0**	**$0**	**$0.00**	**$0.00**
Monthly Amount, (Last Year).....		**$0**	**$0**	**$0.00**	**$0.00**
Balance Required Final Year.....		$28,314			
Base Escalation %.....	**0.00%**				
Special Assessments:	**Years Out**		Total/Year	Per Unit	
First Assessment.....	0		$0	$0	
Second Assessment.....	0		$0	$0	
Balance Computed.....	**($509,065)**				

Reserve Fund Worksheet

Fiscal Years:																
Normal: Jan 2014	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Partial: Jan 2014 (12 months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Existing Funding Levels																
Beginning Reserve Fund Balance:	$53,328	$44,411	$55,771	$60,891	$72,663	$84,730	$10,118	$20,621	$29,133	$9,923	$20,421	($101,955)	($113,577)	($103,577)	($93,577)	($92,652)
Revenue:	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
Special Assessments:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Investment Earnings:	$1,083	$1,360	$1,485	$1,772	$2,067	$247	$503	$711	$242	$498	$0	$0	$0	$0	$0	$0
Capital Expenditures:	$20,000	$0	$6,365	$0	$0	$84,859	$0	$2,198	$29,452	$0	$132,376	$21,622	$0	$0	$9,076	$85,688
Ending Reserve Balance:	$44,411	$55,771	$60,891	$72,663	$84,730	$10,118	$20,621	$29,133	$9,923	$20,421	($101,955)	($113,577)	($103,577)	($93,577)	($92,652)	($168,340)
Alternative 1, Increase to $25,500 per year					Average Cap. Expenditure		$28,314									
Beginning Reserve Fund Balance:	$53,328	$60,299	$87,944	$109,755	$138,637	$168,240	$111,603	$140,531	$167,928	$168,075	$198,415	$93,827	$100,148	$128,789	$158,147	$178,935
Revenue:	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500	$25,500
Special Assessment #1:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Special Assessment #2:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Investment Earnings:	$1,471	$2,145	$2,677	$3,381	$4,103	$2,722	$3,428	$4,096	$4,099	$4,839	$2,288	$2,443	$3,141	$3,857	$4,364	$2,969
Capital Expenditures:	$20,000	$0	$6,365	$0	$0	$84,859	$0	$2,198	$29,452	$0	$132,376	$21,622	$0	$0	$9,076	$85,688
Ending Reserve Balance:	$60,299	$87,944	$109,755	$138,637	$168,240	$111,603	$140,531	$167,928	$168,075	$198,415	$93,827	$100,148	$128,789	$158,147	$178,935	$121,716
Alternative 2, Escalating Funding at 8% per Year																
Beginning Reserve Fund Balance:	$53,328	$49,536	$67,380	$80,473	$101,853	$125,317	$64,060	$90,060	$116,408	$117,588	$151,262	$52,552	$64,897	$99,713	$135,399	$162,675
Revenue:	$15,000	$16,200	$17,496	$18,896	$20,407	$22,040	$23,803	$25,707	$27,764	$29,985	$32,384	$32,384	$32,384	$32,384	$32,384	$32,384
Special Assessment #1:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Special Assessment #2:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Investment Earnings:	$1,208	$1,643	$1,963	$2,484	$3,057	$1,562	$2,197	$2,839	$2,868	$3,689	$1,282	$1,583	$2,432	$3,302	$3,968	$2,734
Capital Expenditures:	$20,000	$0	$6,365	$0	$0	$84,859	$0	$2,198	$29,452	$0	$132,376	$21,622	$0	$0	$9,076	$85,688
Ending Reserve Balance:	$49,536	$67,380	$80,473	$101,853	$125,317	$64,060	$90,060	$116,408	$117,588	$151,262	$52,552	$64,897	$99,713	$135,399	$162,675	$112,105
Alternative 3, Escalating Funding with Special Assessments (NOT USED)																
Beginning Reserve Fund Balance:	$53,328	$34,161	$35,015	$29,366	$30,100	$30,853	($54,006)	($54,006)	($56,205)	($85,657)	($85,657)	($218,033)	($239,654)	($239,654)	($239,654)	($248,730)
Revenue:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Special Assessment #1:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Special Assessment #2:	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Investment Earnings:	$833	$854	$716	$734	$753	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capital Expenditures:	$20,000	$0	$6,365	$0	$0	$84,859	$0	$2,198	$29,452	$0	$132,376	$21,622	$0	$0	$9,076	$85,688
Ending Reserve Balance:	$34,161	$35,015	$29,366	$30,100	$30,853	($54,006)	($54,006)	($56,205)	($85,657)	($85,657)	($218,033)	($239,654)	($239,654)	($239,654)	($248,730)	($334,418)

Fiscal Years:				
Normal: Jan 2014	2030	2031	2032	2033
Partial: Jan 2014 (12 months)	17	18	19	20

Existing Funding Levels

Beginning Reserve Fund Balance:	($168,340)	($158,340)	($173,939)	($163,939)
Revenue:	$10,000	$10,000	$10,000	$10,000
Special Assessments:	$0	$0	$0	$0
Investment Earnings:	$0	$0	$0	$0
Capital Expenditures:	$0	$25,598	$0	$149,048
Ending Reserve Balance:	($158,340)	($173,939)	($163,939)	($302,987)

Alternative 1, Increase to $25,5

Beginning Reserve Fund Balance:	$121,716	$150,896	$154,568	$184,569
Revenue:	$25,500	$25,500	$25,500	$25,500
Special Assessment #1:	$0	$0	$0	$0
Special Assessment #2:	$0	$0	$0	$0
Investment Earnings:	$3,680	$3,770	$4,502	$1,526
Capital Expenditures:	$0	$25,598	$0	$149,048
Ending Reserve Balance:	$150,896	$154,568	$184,569	$62,547

Alternative 2, Escalating Fundi

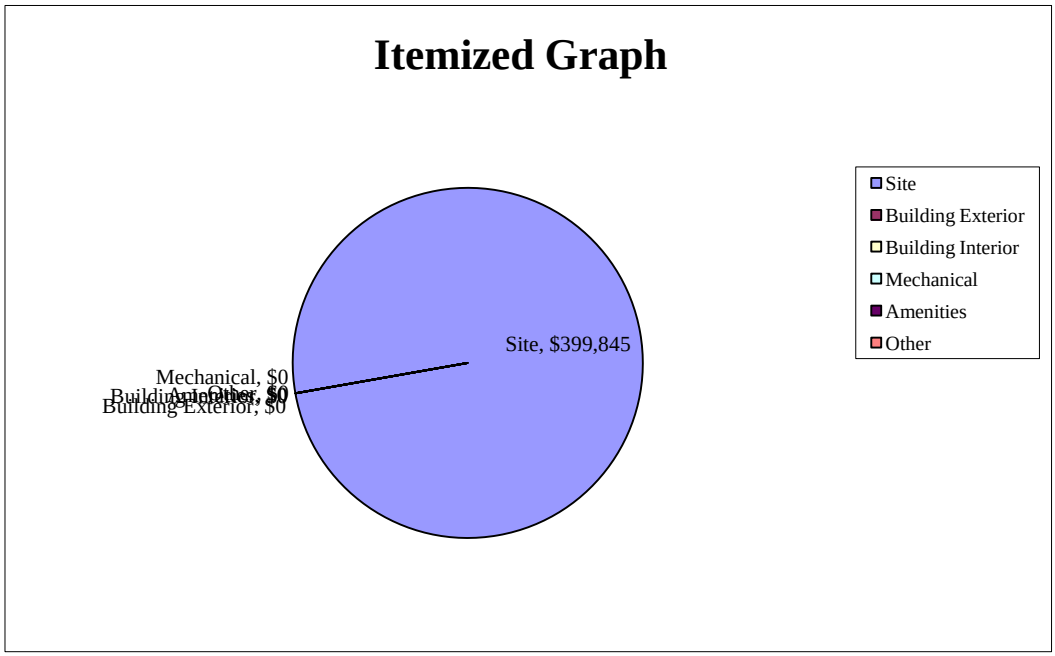
Beginning Reserve Fund Balance:	$112,105	$148,101	$158,759	$195,921
Revenue:	$32,384	$32,384	$32,384	$32,384
Special Assessment #1:	$0	$0	$0	$0
Special Assessment #2:	$0	$0	$0	$0
Investment Earnings:	$3,612	$3,872	$4,779	$1,981
Capital Expenditures:	$0	$25,598	$0	$149,048
Ending Reserve Balance:	$148,101	$158,759	$195,921	$81,238

Alternative 3, Escalating Fundi

Beginning Reserve Fund Balance:	($334,418)	($334,418)	($360,017)	($360,017)
Revenue:	$0	$0	$0	$0
Special Assessment #1:	$0	$0	$0	$0
Special Assessment #2:	$0	$0	$0	$0
Investment Earnings:	$0	$0	$0	$0
Capital Expenditures:	$0	$25,598	$0	$149,048
Ending Reserve Balance:	($334,418)	($360,017)	($360,017)	($509,065)

Itemized Graph

Categories	Totals
Site	$399,845
Building Exterior	$0
Building Interior	$0
Mechanical	$0
Amenities	$0
Other	$0
Total	**$399,845**



Itemized Funding

Categories	Reserve Requirement	Beginning Balance	Balance Requiring Funding	Monthly Reserve Funding Required	Annual Reserve Funding Required	Full Funding Balance	Percent Funded
Site	$399,845	$53,328	$346,517	$1,811	$21,735	$79,798	
Building Exterior	$0	$0	$0	$0	$0	$0	
Building Interior	$0	$0	$0	$0	$0	$0	
Mechanical	$0	$0	$0	$0	$0	$0	
Amenities	$0	$0	$0	$0	$0	$0	
Other	$0	$0	$0	$0	$0	$0	
Totals	**$399,845**	**$53,328**	**$346,517**	**$1,811**	**$21,735**	**$79,798**	**66.8%**

Existing Funding Levels

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments	Investment Earnings	Capital Expenditures	Ending Balance
2014	1	$53,328	$10,000	$0	$1,083	$20,000	$44,411
2015	2	$44,411	$10,000	$0	$1,360	$0	$55,771
2016	3	$55,771	$10,000	$0	$1,485	$6,365	$60,891
2017	4	$60,891	$10,000	$0	$1,772	$0	$72,663
2018	5	$72,663	$10,000	$0	$2,067	$0	$84,730
2019	6	$84,730	$10,000	$0	$247	$84,859	$10,118
2020	7	$10,118	$10,000	$0	$503	$0	$20,621
2021	8	$20,621	$10,000	$0	$711	$2,198	$29,133
2022	9	$29,133	$10,000	$0	$242	$29,452	$9,923
2023	10	$9,923	$10,000	$0	$498	$0	$20,421
2024	11	$20,421	$10,000	$0	$0	$132,376	($101,955)
2025	12	($101,955)	$10,000	$0	$0	$21,622	($113,577)
2026	13	($113,577)	$10,000	$0	$0	$0	($103,577)
2027	14	($103,577)	$10,000	$0	$0	$0	($93,577)
2028	15	($93,577)	$10,000	$0	$0	$9,076	($92,652)
2029	16	($92,652)	$10,000	$0	$0	$85,688	($168,340)
2030	17	($168,340)	$10,000	$0	$0	$0	($158,340)
2031	18	($158,340)	$10,000	$0	$0	$25,598	($173,939)
2032	19	($173,939)	$10,000	$0	$0	$0	($163,939)
2033	20	($163,939)	$10,000	$0	$0	$149,048	($302,987)

Existing Funding Levels

Beginning Balance as of start of year beginning Jan 2014: $53,328

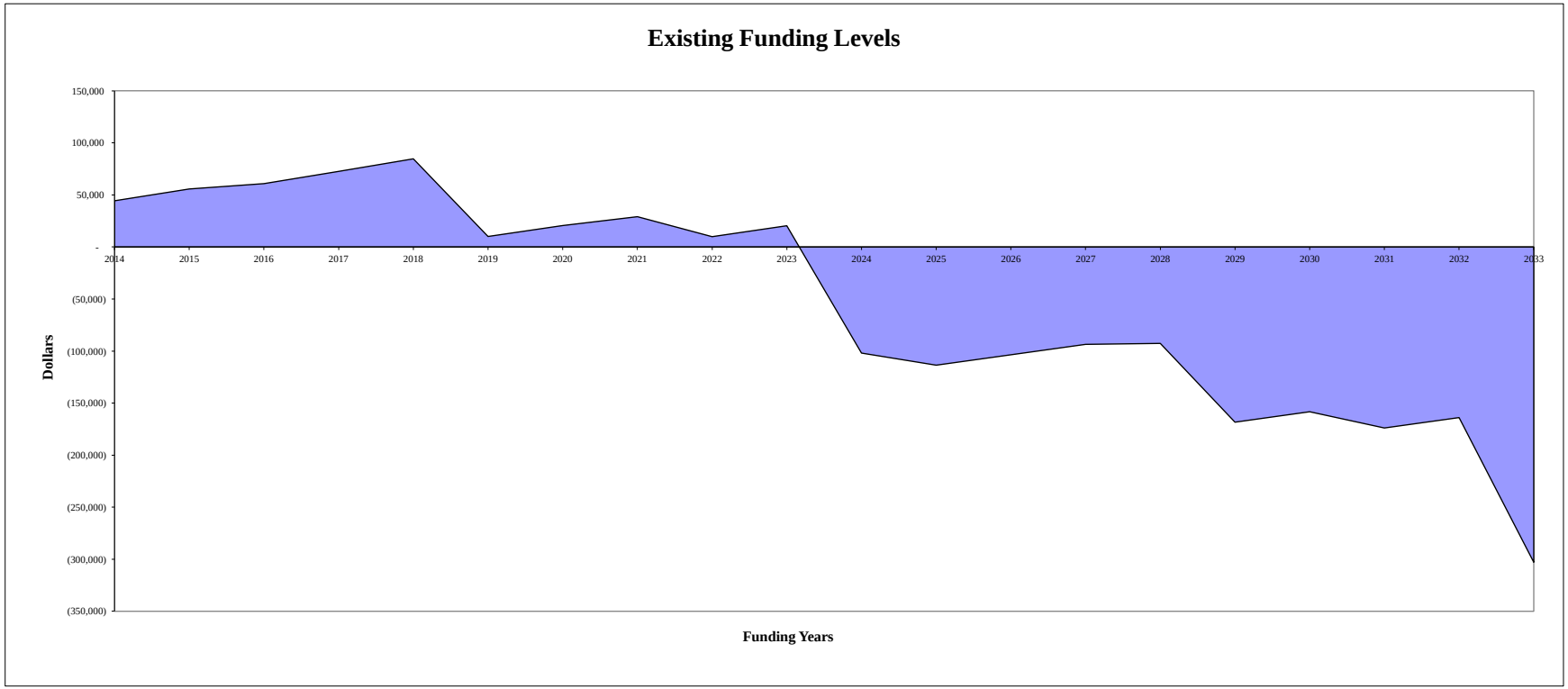
CONTRIBUTIONS	
AMOUNT	
$10,000.00	**per year**
$10,000.00	**per unit per year**
$833.33	**per month**
$833.33	**per unit per month**

SPECIAL ASSESSMENTS			
Totals			
Per Year	$0	**Per Unit**	$0

Projected Annual Funding and Expenditures:

Year:	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	44,411	55,771	60,891	72,663	84,730	10,118	20,621	29,133	9,923	20,421	(101,955)	(113,577)	(103,577)	(93,577)	(92,652)
Capital Expenditures:	20,000	-	6,365	-	-	84,859	-	2,198	29,452	-	132,376	21,622	-	-	9,076
Total Revenue (all sources)	11,083	11,360	11,485	11,772	12,067	10,247	10,503	10,711	10,242	10,498	10,000	10,000	10,000	10,000	10,000

Year:	2029	2030	2031	2032	2033
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	(168,340)	(158,340)	(173,939)	(163,939)	(302,987)
Capital Expenditures:	85,688	-	25,598	-	149,048
Total Revenue (all sources)	10,000	10,000	10,000	10,000	10,000



Alternative 1: Increase to $25,500 per year

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2014	1	$53,328	$25,500	$0	$0	$1,471	$20,000	$60,299
2015	2	$60,299	$25,500	$0	$0	$2,145	$0	$87,944
2016	3	$87,944	$25,500	$0	$0	$2,677	$6,365	$109,755
2017	4	$109,755	$25,500	$0	$0	$3,381	$0	$138,637
2018	5	$138,637	$25,500	$0	$0	$4,103	$0	$168,240
2019	6	$168,240	$25,500	$0	$0	$2,722	$84,859	$111,603
2020	7	$111,603	$25,500	$0	$0	$3,428	$0	$140,531
2021	8	$140,531	$25,500	$0	$0	$4,096	$2,198	$167,928
2022	9	$167,928	$25,500	$0	$0	$4,099	$29,452	$168,075
2023	10	$168,075	$25,500	$0	$0	$4,839	$0	$198,415
2024	11	$198,415	$25,500	$0	$0	$2,288	$132,376	$93,827
2025	12	$93,827	$25,500	$0	$0	$2,443	$21,622	$100,148
2026	13	$100,148	$25,500	$0	$0	$3,141	$0	$128,789
2027	14	$128,789	$25,500	$0	$0	$3,857	$0	$158,147
2028	15	$158,147	$25,500	$0	$0	$4,364	$9,076	$178,935
2029	16	$178,935	$25,500	$0	$0	$2,969	$85,688	$121,716
2030	17	$121,716	$25,500	$0	$0	$3,680	$0	$150,896
2031	18	$150,896	$25,500	$0	$0	$3,770	$25,598	$154,568
2032	19	$154,568	$25,500	$0	$0	$4,502	$0	$184,569
2033	20	$184,569	$25,500	$0	$0	$1,526	$149,048	$62,547

Alternative 1: Increase to $25,500 per year

Beginning Balance as of start of year beginning Jan 2014: $53,328

CONTRIBUTIONS		
FIRST YR	**LAST YR**	
$25,500.00	$25,500.00	**per year**
$25,500.00	$25,500.00	**per unit per year**
$2,125.00	$2,125.00	**per month**
$2,125.00	$2,125.00	**per unit per month**

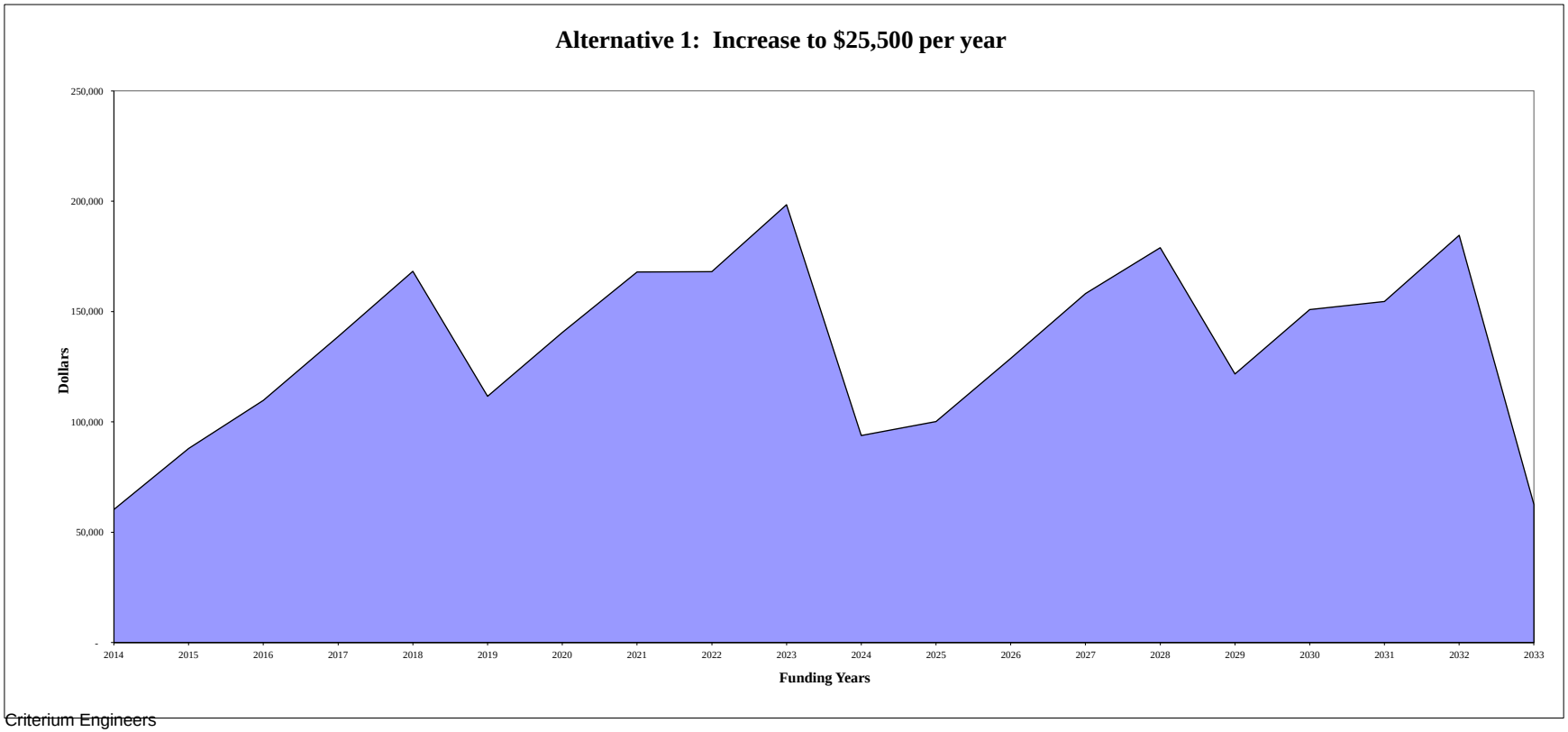
SPECIAL ASSESSMENTS				
	Totals			
First	**Per Year**	$0	**Per Unit**	$0
Second	**Per Year**	$0	**Per Unit**	$0

SETTINGS (analyzed by year)		
Starting amount ($):	2125	
Increment by ($):	0	
Every	1	year
Frequency:	1	time

Projected Annual Funding and Expenditures:

Year:	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	60,299	87,944	109,755	138,637	168,240	111,603	140,531	167,928	168,075	198,415	93,827	100,148	128,789	158,147	178,935
Capital Expenditures:	20,000	-	6,365	-	-	84,859	-	2,198	29,452	-	132,376	21,622	-	-	9,076
Total Revenue (all sources)	26,971	27,645	28,177	28,881	29,603	28,222	28,928	29,596	29,599	30,339	27,788	27,943	28,641	29,357	29,864

Year:	2029	2030	2031	2032	2033
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	121,716	150,896	154,568	184,569	62,547
Capital Expenditures:	85,688	-	25,598	-	149,048
Total Revenue (all sources)	28,469	29,180	29,270	30,002	27,026



Alternative 2: Escalating Funding at 8% per Year

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2014	1	$53,328	$15,000	$0	$0	$1,208	$20,000	$49,536
2015	2	$49,536	$16,200	$0	$0	$1,643	$0	$67,380
2016	3	$67,380	$17,496	$0	$0	$1,963	$6,365	$80,473
2017	4	$80,473	$18,896	$0	$0	$2,484	$0	$101,853
2018	5	$101,853	$20,407	$0	$0	$3,057	$0	$125,317
2019	6	$125,317	$22,040	$0	$0	$1,562	$84,859	$64,060
2020	7	$64,060	$23,803	$0	$0	$2,197	$0	$90,060
2021	8	$90,060	$25,707	$0	$0	$2,839	$2,198	$116,408
2022	9	$116,408	$27,764	$0	$0	$2,868	$29,452	$117,588
2023	10	$117,588	$29,985	$0	$0	$3,689	$0	$151,262
2024	11	$151,262	$32,384	$0	$0	$1,282	$132,376	$52,552
2025	12	$52,552	$32,384	$0	$0	$1,583	$21,622	$64,897
2026	13	$64,897	$32,384	$0	$0	$2,432	$0	$99,713
2027	14	$99,713	$32,384	$0	$0	$3,302	$0	$135,399
2028	15	$135,399	$32,384	$0	$0	$3,968	$9,076	$162,675
2029	16	$162,675	$32,384	$0	$0	$2,734	$85,688	$112,105
2030	17	$112,105	$32,384	$0	$0	$3,612	$0	$148,101
2031	18	$148,101	$32,384	$0	$0	$3,872	$25,598	$158,759
2032	19	$158,759	$32,384	$0	$0	$4,779	$0	$195,921
2033	20	$195,921	$32,384	$0	$0	$1,981	$149,048	$81,238

Alternative 2: Escalating Funding at 8% per Year

Beginning Balance as of start of year beginning Jan 2014: $53,328

CONTRIBUTIONS		
FIRST YR	**LAST YR**	
$15,000.00	$32,383.87	**per year**
$15,000.00	$32,383.87	**per unit per year**
$1,250.00	$2,698.66	**per month**
$1,250.00	$2,698.66	**per unit per month**

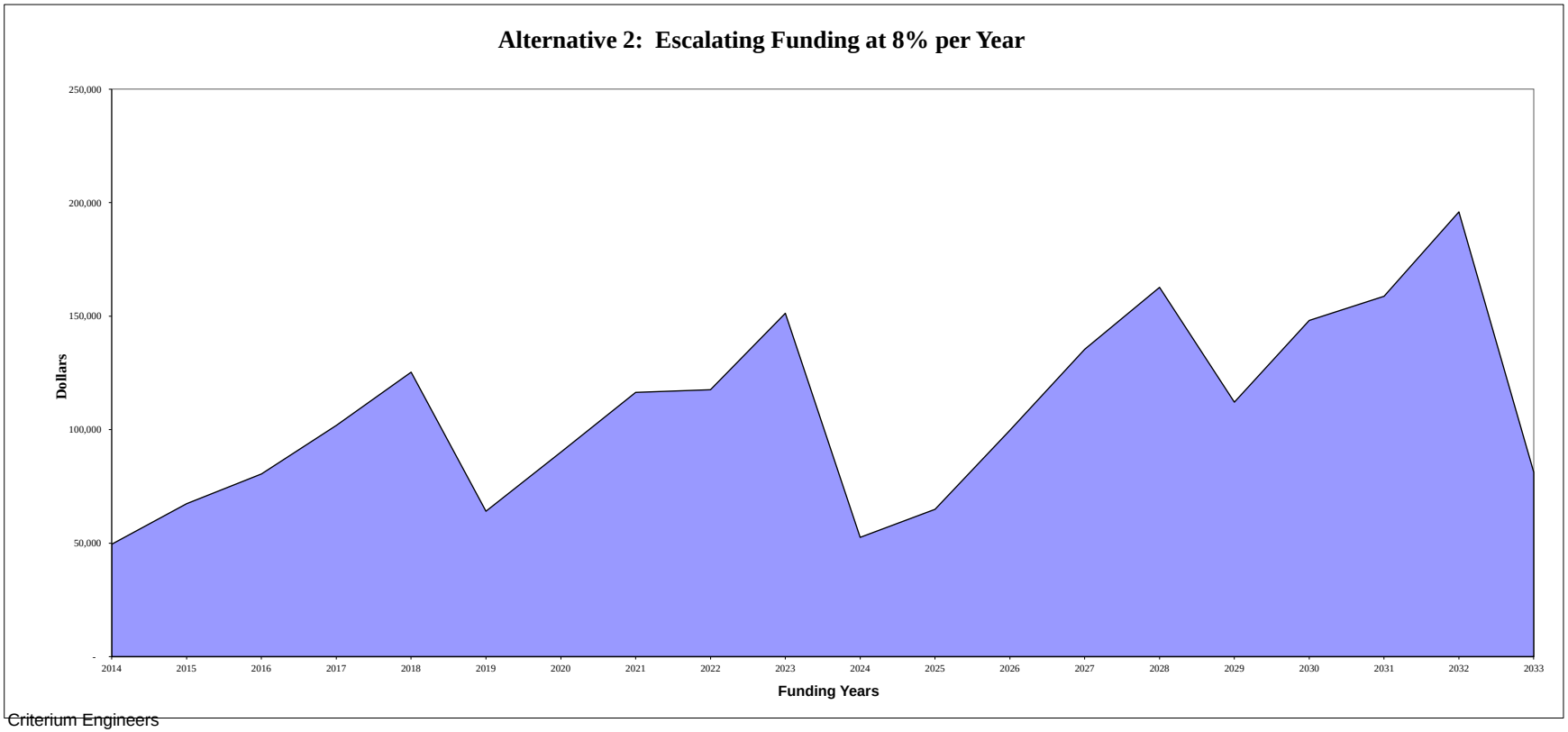
SPECIAL ASSESSMENTS				
	Totals			
First	**Per Year**	$0	**Per Unit**	$0
Second	**Per Year**	$0	**Per Unit**	$0

SETTINGS (analyzed by year)		
Starting amount ($):	1250	
Increment by (%):	8	
Step (%):		
Every	1	year
Frequency:	10	time

Projected Annual Funding and Expenditures:

Year:	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	49,536	67,380	80,473	101,853	125,317	64,060	90,060	116,408	117,588	151,262	52,552	64,897	99,713	135,399	162,675
Capital Expenditures:	20,000	-	6,365	-	-	84,859	-	2,198	29,452	-	132,376	21,622	-	-	9,076
Total Revenue (all sources)	16,208	17,843	19,459	21,380	23,464	23,602	26,000	28,547	30,632	33,674	33,666	33,967	34,816	35,686	36,352

Year:	2029	2030	2031	2032	2033
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	112,105	148,101	158,759	195,921	81,238
Capital Expenditures:	85,688	-	25,598	-	149,048
Total Revenue (all sources)	35,118	35,996	36,256	37,162	34,365



Appendix B: PROJECT PHOTOGRAPHS

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
General view of Lake A.

Photo Number
1

Description:
View of Lake B taken from top of dam of Lake A.

Photo Number
2

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Low flow orifice at Lake A completely submerged.

Photo Number
3

Description:
Debris around Lake A primary spillway.

Photo Number
4

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Dock submerged below surface in Lake A.

Photo Number
5

Description:
Outlet for low flow orifice (left); outlet for primary spillway (top, right)

Photo Number
6

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Bare areas on top of dam at Lake A.

Photo Number
7

Description:
Bottom of emergency spillway for Lake A at mouth of combined concrete spillway.

Photo Number
8

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Looking towards Lake B spillway, standing on tie-in of emergency spillway from Lake A.

Photo Number
9

Description:
Emergency spillway flume for Lake B.

Photo Number
10

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Concrete flume meets combined spillway.

Photo Number
11

Description:
Minor cracks in concrete spillway; joint sealant showing signs of deterioration

Photo Number
12

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Concrete spillway discharge.

Photo Number
13

Description:
Unstable shoreline with early signs of rills and erosion.

Photo Number
14

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Rip rap swale overgrown with vegetation.

Photo Number
15

Description:
Sediment accumulation at mouth of stream in Lake B adjacent to 3108 Camp Ranger Lane.

Photo Number
16

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Reinforced concrete pipe outlet covered with debris; minor erosion and displaced rip rap adjacent to Lake B stream inlet

Photo Number
17

Description:
Timber retaining wall

Photo Number
18

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Wood security fence.

Photo Number
19

Description:
Entrance monument signage and stone wall along west side of Piedmont Parkway.

Photo Number
20

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Stone wall opposite Piedmont Parkway from tower/monument signage.

Photo Number
21

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Wood security fence.

Photo Number
19

Description:
Entrance monument signage and stone wall along west side of Piedmont Parkway.

Photo Number
20

Location:
James Landing
Jamestown, NC

Photo Taken by:
Christopher Flythe, PE
Kevin Giles

Date:
January 21, 2013

Description:
Stone wall opposite Piedmont Parkway from tower/monument signage.

Photo Number
21