Re$erve Study

(Long Term Capital Replacement Plan)

for

Oak Trails Estates Mutual Water Company

January 2021

For the fiscal year beginning January 1, 2021

(*Reserve Study with Site Inspection)*

Santa Ynez, CA

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Introduction

This reserve study for **Oak Trails Estates Mutual Water Company** utilizes cash flow analysis and straight-line depreciation methods in order to determine the recommended reserve funding for your budget. In addition, it provides your water company with the proper disclosures per Civil Code §5500, §5570 Note that water companies may or may not be subject to such requirements, but water companies must adopt a "Reserve Funding Plan" at a Board meeting open to members per Civil Code §5560. Reserve studies are required every 3 years.

There are six sections in this reserve study:

FINANCIAL ANALYSIS – Two types of financial analysis were performed:

- **Cash Flow Analysis-- Optimal Reserve Funding Plan.**
  Cash Flow Analysis is the formal accounting method used to prove that future cash flows can fund future expenses. First, we do a cash flow analysis projection depicting your reserve income and expenses for the next 30 years *assuming no special action is taken other than basic cost-of-living increases* in annual reserve funding.

  Then our proprietary SmartReserve™ software determines the optimal reserve funding plan for anticipated reserve expenses during the next 30 years. This *Optimized Cash Flow Analysis* shows a recommended annual reserve funding amount in which projected reserve income can properly fund projected reserve expenses.

- **Straight-Line Funding Analysis.**
  The *Straight-Line Depreciation and Percent Funded* report utilizes straight-line segregated analysis to determine your water company's *percent funded estimate* (a measure of the strength of reserves relative to the depreciation of assets) – a required disclosure.

GRAPHS – Graphs facilitate visual interpretation of projected expenses versus reserve balances in the cash flow projections discussed above.

ASSUMPTIONS – Key assumptions used in the reserve analysis such as starting reserve balance, interest rate on reserve investment, tax rate on earned interest, etc., are documented.

METHODOLOGY – This section describes financial analysis methods utilized in this study.

RESERVE COMPONENT DESCRIPTIONS - (PHYSICAL ANALYSIS) – This section contains specific details for each reserve component, including measurements, description of each component, estimated useful life, remaining life, and current cost to replace.

AFTER YOUR RESERVE STUDY IS PREPARED – This section indicates what to do with the results of your reserve study so your water company can derive the most benefit from it.

Disclaimer: No representation is made that *actual* costs for future reserve expenditures will correspond closely to *estimated* costs presented herein. Contractor bids are known to vary significantly from one another. A reserve study is a *projection*, not a *prediction*. **It is not intended to be a maintenance guide**. Rather, it is a financial planning document.

Executive Summary

Oak Trails Estates Mutual Water Company is a mutual water company having 72 owners (hereafter referred to as units) and 25 identified reserve components to maintain. The following reserve analyses are presented:

- **Optimized 30-Year Cash Flow Analysis** - determines an optimal *Reserve Funding Plan* to enable your water company to fund projected reserve expenses.
- **Straight Line Depreciation Analysis** – calculates the "*Percent Funded Estimate*" -- a measure of strength of reserves. This is a required annual disclosure to all members.
- **30-Year Cash Flow Analysis Showing Current Funding Levels** – this analysis illustrates how your water company would become over/underfunded if only simple inflationary increases are applied each year to current reserve funding.

1. RESERVE FUNDING PLAN: Optimized 30-Year Cash Flow Analysis

The **Optimized 30-Year Cash Flow Analysis** funding plan indicates that your water company should consider raising reserve funding to **$60,869** per year with an increase to **$71,826** per year in 2022, then **$84,754** the next year, followed by similar increases thereafter to adequately build reserves for future expenses. This multi-year ramp of funding is suggested to smooth out what would otherwise be a steeper funding increase to $95,356 in the first year. NOTE: This increase is partly driven by the fact that a $35K Generator has been added to the list of capital assets needing funding. Additionally, the $100K of Ultrasonic Water Meter replacements requires funding. Finally, contractor & equipment inflation has increased significantly in the past 3 years.

The recommended first-year funding represents **an increase** of $10.75/month per unit in the *reserve funding portion* of your overall budget.

FY 2021 annual reserve contribution (with annual increases thereafter – refer to cash flow analysis):	$60,869/year
FY 2021 monthly reserve contribution:	$5,072/month
Change in monthly reserve contribution per owner:	$10.75/month

SPECIAL ASSESSMENTS: May be necessary if there are variances in projected expenses or replacement scheduling. Or if capital expenses not listed or unknown to this analysis become apparent and if there are insufficient reserve funds to pay for them.

NOTE: The recommended reserve funding represents the amount that is needed when the water company adopts a reserve funding plan to pay for capital expense projects evenly over time. In doing so, the depreciation of capital assets is distributed evenly over the years for all owners.

For some underfunded water companies, the rate of funding increases in forthcoming years must substantially exceed the rate of inflation in order to restore reserves to a healthy level. For the

complete optimized cash flow projection and graphic depiction of future expenses versus reserves, refer to the optimized cash flow section in this report starting on Page 9.

This reserve funding plan should provide adequate reserves for projected reserve expenses for the next 30 years, barring unforeseen circumstances, and subject to the *Summary of Assumptions* documented herein. It is assumed that interest earned will be accrued *directly* to the reserve account, hence the recommended reserve funding level is *exclusive* of earned interest.

2. STRAIGHT-LINE DEPRECIATION ANALYSIS

The **Straight-Line Depreciation Analysis** indicates that **Oak Trails Estates Mutual Water Company** has cash reserves representing **41.2%** of depreciation of all reserve component assets. This *percent-funded estimate* indicates your water company is underfunded for depreciation-to-date. However, if the optimized cash flow funding recommendation is followed, reserve income should be able to fund reserve expenses for the duration of the 30-year projection, assuming expenses occur as projected. In many cases, water companies can be less than "100% funded" for depreciation-to-date, yet can adequately fund future reserve expenses using the optimized cash flow analysis funding plan.

The **41.2%** "percent funded estimate" is the ratio of your **$264,628** *reserve balance* versus the **$642,375** *life-to-date depreciation* of your reserve components. The percent funded estimate is most often used as a measure of *strength of reserves relative to depreciation of assets*. If your water company would like to be 100% funded in the next fiscal year, it would need to make a FY 2021 reserve contribution of **$98,934**, or **$8,245** per month, ***PLUS*** it would fund any accrued "depreciation-to-date" – in this case, $377,747. This is not necessary for many water companies.

For the complete Straight-Line Depreciation and Percent Funded Analysis, refer to that section in this report.

3. CASH FLOW ANALYSIS: Projection Showing Current Funding Levels

In order to demonstrate what could happen if the water company continues reserve funding at the current rate of $51,584 per year (plus $1,588 interest on reserves after taxes) and with no special assessments, a cash flow analysis showing projected reserve income against projected future reserve expenses indicates the minimum resulting reserve balance for the 30-year projection would be <$1,899,044>, occurring in the year 2049.

Continuation of current reserve funding – with annual inflationary increases hereafter – will cause your water company to be underfunded. The results of the current reserve funding projection are graphically depicted in the first bar-chart following the optimized cash flow projection. The second bar chart shows the *Optimized 30-Year Cash Flow Analy*sis data, so you can essentially see the "before & after' results of cash flow optimization.

Note that a copy of this "current funding cash flow projection" is not shown in this report to avoid confusion with the more-important 30-year optimized cash flow analysis pages.

Reserve Analysis Summary Sheet

Oak Trails Estates Mutual Water Company
February 2021 -- For the fiscal year beginning January 1, 2021

Cash Flow Analysis

Definition: *Cash Flow Analysis is the formal accounting method used to prove that future cash flows can fund future expenses. The two variations of the same cash flow analysis are:*

1. *The **Current Budget Cash Flow Analysis** forecasts future reserve balances assuming no special action is taken by your water company other than annual inflationary increases in reserve funding for the next 30 years.*
2. *The **Optimized Cash Flow Analysis** determines the optimal annual reserve contribution to fund projected expenses over the next 30 years.*

Findings	Current Reserve Budget	Optimized Cash Flow - FY 2021 (recommended)
Annual reserve contribution:	$51,584	$60,869
Monthly reserve contribution (total from all units):	$4,299	$5,072
Percent increase in reserve contribution:	3.00%	18.0%
Average change in reserve funding per member:	n/a	$10.75/month
Average monthly reserve contribution per member:	$59.70/month	$70.45/month
Minimum projected reserves (lowest balance occurs in 2049):	<$1,899,044>	$30,000
Year in which lowest future reserve balance occurs:	2049	2047
Reserve funding increase or special assessment needed:	Yes	Yes

Straight-Line Depreciation Analysis

Definition: *Straight-Line Depreciation Analysis provides a snapshot of your water company's reserve component depreciation as of the current year. It includes a percent-funded estimate, life-to-date depreciation of all reserve components, estimated depreciation for the forthcoming year, and unfunded depreciation liability. It is not a 30-year long-term projection and does not account for additive effects of interest income on reserve accounts.*

Findings	Straight-Line Depreciation
FY 2021 annual reserve depreciation *(estimated 2021 depreciation):*	$98,934
FY 2021 monthly reserve depreciation:	$8,245
FY 2021 monthly reserve depreciation per unit:	$115/month
Percent Funded Estimate *(reserves / cumulative depreciation liability):*	41.2%
Life-to-date depreciation liability (100% Funded Balance):	$642,375
Reserve Deficiency *(amount needed to achieve 100% funding):*	$377,747 Total and $5,246/Unit

General Comment: *The cash flow analysis often results in lower funding requirements and a more accurate modeling of future expense patterns.*

Summary of Assumptions

The following financial information is used in this reserve study:

Number of units in this water company	72 Units
Fiscal year-end reserve account balance (in some cases this is projected)	$264,628
Interest rate earned on reserve account(s)	0.60%
Tax rate on reserve account interest	0.00%
Expected rate of inflation	3.00%
Minimum acceptable future reserve account balance (in cash flow)	$30,000

General Assumptions:

- Financial information, maintenance history, quantities, and cost estimates provided by client are accurate and reliable. To the extent that information has been provided by the client, this reserve study is a compendium of that information for the client's use, not for the purposes of performing an audit, quality/forensic analysis, or background check of historical records. Other cost estimates are from local contractors or our cost database. This reserve study is not to be used as a stand-alone maintenance guide. Consult specific contractors instead.
- Recurring expenses, inflation, and interest rates will continue as projected.
- The analysis assumes that no unforeseen circumstances (acts of nature, lawsuits, vandalism, etc.) will cause a significant drawdown of reserves.
- The water company maintains sufficient comprehensive property insurance to protect its reserves from insurable risks such as fire, property liability, vandalism, etc.
- The water company plans to continue to maintain existing amenities.
- Life-of-project costs are not included in the scope of this study because these items are assumed to significantly outlast the 30-year reserve cash flow projection.
- For reserve study updates with site visit or updates without a site visit, the client has presumably deemed previously developed component quantities as accurate and reliable.
- There are no actual, potential, or perceived conflicts of interest between the reserve study preparer and the client or parties related to the client.

Site-Specific Assumptions:

- The following items are assumed to be funded via the water company's annual operating budget: Routine system repairs, including 4", 6", and 8" water line repairs based on the assumption that PVC lines underground do not deteriorate significantly over time and the likely expense will be localized repairs due to soil shifting or tree root encroachment.

- The backflow devices are homeowner responsibility and the testing thereof is paid for by the water company, but is not a reserve item because it is billed to the owners as part of the water service.
- The 2009 reserve study involved a complete update to water system component pricing by the watermaster. Many costs had increased significantly in recent years due to steep increases in steel and also for competition for well driller's services from the oil industry. New Well also drilled to replace Well #2 in 2017.
- In 2012, removed the "60-hp Pump Motor Repl/Clean" line items because it no longer makes sense to replace just the pump motor and then a few years later replace the entire pump when the pump mechanism fails and not the motor.
- The Mutual Water Company files a FTB-100 tax form and likely pays taxes on reserve interest earnings via the operating budget, so a 0% tax rate is shown (from the reserve perspective).
- Reserve Account Balance: **$264,628** estimated as of the end of the current fiscal year. This is a projected amount based on most recent bank statements plus any reserve transfers until fiscal year end, minus anticipated reserve expenses until fiscal year end. If this reserve study is done after fiscal year end, the balance represents the cash held in reserve accounts as of the fiscal year's last statement. *This starting reserve account balance is based on information provided by the client and was not audited.*
- Interest rate on the reserve account(s) is **0.60%**. If interest rates change significantly in future years, or if reserves are placed in a long-term, higher interest-bearing account, another cash flow analysis should be prepared and reviewed by the Board.
- Tax rate on reserve account interest is **0.00%**. Water companies that file an IRS Form 1120-H pay 30% taxes on interest earnings while those filing form 1120 (standard corporate form) pay 21% (as of 1/1/18). In addition to Federal taxes, state taxes usually apply.
- Inflation rate to be applied to future replacement costs is **3.00%**. In recent years, inflation as applied to homeowners water company costs has exceeded the typical CPI (Consumer Price Index) inflation rate cited by government sources. If the prevailing inflation rate changes significantly in future years, another cash flow analysis should be prepared and reviewed by the Board.
- Funding Goal - Minimum acceptable future reserve account balance: **$30,000**. The cash flow analysis optimization software determines the optimal annual reserve contribution such that all projected expenses are adequately funded, while always maintaining at least **$30,000** in reserves. When this threshold dollar amount is greater than zero, this minimum future projected balance is essentially a contingency to allow for unforeseen expenses and is referred to as *"threshold funding."*

Reserve Analysis Methodology

A reserve analysis is a projection of future reserve expenditures versus reserve balance accompanied by a reserve funding recommendation. Two different methods are provided in this reserve study:

- **Cash Flow Analysis** (using component pooling)
- **Straight-Line Depreciation Analysis** (segregated components).

The methods of calculation and the advantages of each type of analysis are discussed herein.

Cash Flow Analysis Method

The traditional accounting method used to prove that future income can adequately fund future expenses is a ***cash flow analysis***. A cash flow analysis provides detailed long-term projections of future reserve balances and should include the following realistic factors:

- *Inflation* as applied to future reserve expenses
- *Interest* earned on reserve account
- *Tax rate* on earned interest.

Because inflation, interest, and tax rates fluctuate from year to year, it is prudent to update the reserve cash flow analysis yearly with recent rates.

The 30-year cash flow analysis in this reserve study is based on the *component pooling method.* A "reserve component" is a water company asset (such as roofing, paving, etc.) that the water company is obligated to maintain with reserve funds.

The component pooling method simply involves "pooling" or summing the costs to repair or replace all components in each year for which such expenditures are scheduled. The aggregate component cost for each future year is then multiplied by an inflation factor to determine the total future yearly reserve expense.

Once the annual inflation-adjusted costs are totaled for each year, the reserve expenses are reconciled against reserve income and after-tax interest earnings to yield a reserve balance at the end of each year in the projection. Future years showing a reserve deficit can be pinpointed by examining the bottom line ("*Reserve account balance at end of year*") of the cash flow analysis, or by viewing the cash flow graph projections. For a line-by-line description of the cash flow analysis, refer to the *"Understanding Your Cash Flow Analysis"* section in this study.

Straight-Line Depreciation Analysis Method

The Straight-Line Depreciation method (also known as the *Component Method*) is a more simplistic snapshot of an water company's reserve status in the current year. It includes the following:

- ***Cumulative Depreciation Liability*** of reserve components to-date. This is the sum of life-to-date depreciation liabilities for all reserve components using the straight-line depreciation method.
- ***Expected Depreciation*** of reserve components in the forthcoming year, in other words, the forthcoming year's depreciation funding recommendation using straight-line depreciation analysis (e.g. if a component costs $10,000 to replace and it has a 10-year life, the depreciation liability for each year is $1,000).
- ***Percent-Funded Estimate*** - the ratio of current reserve balance relative to cumulative depreciation. This estimate gives you a measure of the strength of reserves relative to depreciation of assets.
- ***Unfunded Liability (Deficit)*** - the portion of reserve component depreciation (cumulative depreciation) for which there are no reserve funds. For example, if the Cumulative Depreciation Liability for all reserve components is $100,000 as of the date of the study and there is $60,000 in reserves, the *Unfunded Liability* is $40,000.

It is important to note that the Straight-Line Depreciation method is *not* a long-term projection like a cash flow analysis. Rather, it simply shows cumulative depreciation-to-date and depreciation for the forthcoming year. A significant finding of the Straight-Line Depreciation method is the Percent-Funded Estimate.

Advantages of Each Analysis Method

While the straight-line method is conceptually easier to understand than the cash flow method (component pooling), some straight-line implementations fail to incorporate the effects of inflation on future costs or earned interest on reserve account funds.

The cash flow pooling method is generally regarded as a more accurate way to model future expense patterns and is preferred because it accounts for contributions from reserve account investment income. It often results in a lower recommended reserve funding recommendation than the straight-line method. However, there are unusual cases where the cash flow method can result in a higher recommended reserve contribution.

Both types of analysis (component pooling-cash flow analysis and straight-line segregated) are provided in this reserve study, but we recommend that clients refer to the Optimized Cash Flow Analysis when establishing their Reserve Funding Plan. The straight-line analysis page is primarily included in this report because it is needed to calculate the "Percent Funded Estimate" – which is a common measure of reserve fund status.

Reserve Cash Flow Analysis
Optimized Projection

The following pages contain an *optimized* reserve cash flow analysis where the initial optimal reserve contribution of **$60,869** per year has been determined by software (using a binary search method) such that future reserve balances will adequately fund anticipated expenses for the 30-year duration of this projection.

Once the optimal reserve funding plan is determined, the annual rate of increase in funding stabilizes with 3.00% cost of living (inflationary) increases for subsequent years in the remainder of the projection. In some cases, the optimal funding represents a *reduction* from current funding levels.

RECOMMENDED ANNUAL RESERVE FUNDING: For Oak Trails Estates Mutual Water Company, the Optimized 30-Year Cash Flow Analysis funding plan indicates that your water company should consider raising reserve funding to **$60,869** per year with an increase to **$71,826** per year in 2022, then **$84,754** the next year, followed by similar increases thereafter to adequately build reserves for future expenses. This multi-year ramp of funding is suggested to smooth out what would otherwise be a steeper funding increase to $95,356 in the first year.

The recommended first-year funding represents an increase of **$10.75**/month per unit in the reserve funding portion of your overall budget.

SPECIAL ASSESSMENTS: May be necessary if there are variances in projected expenses or replacement scheduling. Or if capital expenses not listed or unknown to this analysis become apparent and if there are insufficient reserve funds to pay for them.

Notice how the annual reserve expenses and year-end reserve account balance amounts in the *Optimized Cash Flow Analysis* correspond to the bars in the lower graph on the bar charts page shown immediately following the cash flow analysis pages.

For a detailed description of the cash flow analysis refer to pages following the cash flow analysis reports titled *Understanding Your Cash Flow Analysis.*

Note: A reserve cash flow analysis is *not a prediction* of future events. Rather, it is a *projection* of anticipated future events. Actual timing and replacement costs may vary.

Optimized Cash Flow Analysis for Oak Trails Estates Mutual Water Company

RESERVE COMPONENTS	Estimated Useful Life (years)	Estimated Remaining Life (years)	Estimated Current Cost to Replace	Fiscal Year Beginning Jan 1, 2021	Fiscal Year Beginning in 2022	Fiscal Year Beginning in 2023
WELL # 7 (New Well a/o 2017)						
Well #7: 100-hp Pump Replace 11/17	6	2	$60,000			$63,654
Well #7: Meter Rebuild (New 11/17)	4	0	$1,650	$1,650		
Well #7: Hypo-Chlorinator (New 6/19)	2	0	$1,500	$1,500		$1,591
WELL # 5 (Backup Well)						
Well #5: 50-hp Pump Replace 8/11	12	2	$50,000			$53,045
Well #5: Meter Rebuild 12/16	6	2	$1,100			$1,167
WELL # 6						
Well #6: 60-hp Pump Replace 8/19	6	4	$60,000			
Well #6: Meter Rebuild 1/19	4	2	$1,100			$1,167
Well #6: Hypo-Chlorinator 5/17	2	0	$1,500	$1,500		$1,591
CISTERNS (7)						
Cisterns - Clean 7/02	20	1	$7,700		$7,931	
COMMUNICATION SYSTEMS						
Cisterns - Probe 3/19	5	3	$1,650			
Radio System Hardware 11/19	10	8	$44,000			
Alarm Agent 2/20	5	4	$2,500			
FUTURE WELL REPLACEMENT						
Drill & Install New Well #5	30	10	$300,000			
Drill & Install New Well #6	30	17	$300,000			
Drill & Install New Well #7 (11/17)	30	26	$300,000			
WELL ENCLOSURE FENCING						
Well #2, #4, #5 - Wood Fencing	20	6	$9,800			
Well #2, #4, #5 - Split Rail Fence	10	5	$6,500			
Well #7 - Wood Fencing	20	16	$4,000			
Well #7 - Split Rail Fence	10	6	$2,100			
MISCELLANEOUS						
Fire Hydrants (15) - Replace	1	0	$8,800	$8,800	$9,064	$9,336
Shutoff Valves	2	0	$12,000	$12,000		$12,731
Residential Ultrasonic Water Meters	20	0	$100,000	$100,000		
Cistern Access Road Chip Seal 7/17	6	2	$4,800			$5,092
*Caterpillar Generator (Used) 4/20	20	19	$35,000			
Unscheduled Capital Expense	1	0	$10,000	$10,000	$10,300	$10,609
Inflation factor applied each year				1.000	1.030	1.061
Estimated total reserve expense	(Costs adjusted for Inflation)			$135,450	$27,295	$159,983
CASH FLOW FORECASTS						
Annual reserve funding	**RECOMMENDED** →			**$60,869**	$71,826	$84,754
Special Assessment						
After-tax interest earnings	(on reserve account)			$1,588	$1,150	$1,424
Gross reserve account income				$62,457	$72,975	$86,178
Annual reserve expense	(from total above)			$135,450	$27,295	$159,983
Net annual reserve income	(reserve expense - reserve income)			($72,993)	$45,680	($73,805)
Reserve Acct - Beginning of year				$264,628	$191,635	$237,315
Reserve Account - End of year				**$191,635**	**$237,315**	**$163,510**

Optimized Cash Flow Analysis for Oak Trails Estates Mutual Water Company

RESERVE COMPONENTS	Fiscal Year Beginning in 2024	Fiscal Year Beginning in 2025	Fiscal Year Beginning in 2026	Fiscal Year Beginning in 2027	Fiscal Year Beginning in 2028
WELL # 7 (New Well a/o 2017)					
Well #7: 100-hp Pump Replace 11/17					
Well #7: Meter Rebuild (New 11/17)		$1,857			
Well #7: Hypo-Chlorinator (New 6/19)		$1,688		$1,791	
WELL # 5 (Backup Well)					
Well #5: 50-hp Pump Replace 8/11					
Well #5: Meter Rebuild 12/16					
WELL # 6					
Well #6: 60-hp Pump Replace 8/19		$67,531			
Well #6: Meter Rebuild 1/19				$1,313	
Well #6: Hypo-Chlorinator 5/17		$1,688		$1,791	
CISTERNS (7)					
Cisterns - Clean 7/02					
COMMUNICATION SYSTEM					
Cisterns - Probe 3/19	$1,803				
Radio System Hardware 11/19					
Alarm Agent 2/20		$2,814			
FUTURE WELL REPLACEM					
Drill & Install New Well #5					
Drill & Install New Well #6					
Drill & Install New Well #7 (11/17)					
WELL ENCLOSURE FENCI					
Well #2, #4, #5 - Wood Fencing				$11,702	
Well #2, #4, #5 - Split Rail Fence			$7,535		
Well #7 - Wood Fencing					
Well #7 - Split Rail Fence				$2,508	
MISCELLANEOUS					
Fire Hydrants (15) - Replace	$9,616	$9,904	$10,202	$10,508	$10,823
Shutoff Valves		$13,506		$14,329	
Residential Ultrasonic Water Meters					
Cistern Access Road Chip Seal 7/17					
*Caterpillar Generator (Used) 4/20					
Unscheduled Capital Expense	$10,927	$11,255	$11,593	$11,941	$12,299
Inflation factor applied each year	1.093	1.126	1.159	1.194	1.230
Estimated total reserve expense	$22,346	$110,243	$29,330	$55,883	$23,122
CASH FLOW FORECASTS					
Annual reserve funding	$100,010	$110,074	$113,377	$116,778	$120,281
Special Assessment					
After-tax interest earnings	$981	$1,453	$1,461	$1,974	$2,351
Gross reserve account income	$100,991	$111,527	$114,837	$118,752	$122,632
Annual reserve expense	$22,346	$110,243	$29,330	$55,883	$23,122
Net annual reserve income	$78,645	$1,284	$85,507	$62,869	$99,510
Reserve Acct - Beginning of year	$163,510	$242,155	$243,440	$328,947	$391,815
Reserve Account - End of year	**$242,155**	**$243,440**	**$328,947**	**$391,815**	**$491,326**

Optimized Cash Flow Analysis for Oak Trails Estates Mutual Water Company

RESERVE COMPONENTS	Fiscal Year Beginning in 2029	Fiscal Year Beginning in 2030	Fiscal Year Beginning in 2031	Fiscal Year Beginning in 2032	Fiscal Year Beginning in 2033
WELL # 7 (New Well a/o 2017)					
Well #7: 100-hp Pump Replace 11/17	$76,006				
Well #7: Meter Rebuild (New 11/17)	$2,090				$2,353
Well #7: Hypo-Chlorinator (New 6/19)	$1,900		$2,016		$2,139
WELL # 5 (Backup Well)					
Well #5: 50-hp Pump Replace 8/11					
Well #5: Meter Rebuild 12/16	$1,393				
WELL # 6					
Well #6: 60-hp Pump Replace 8/19			$80,635		
Well #6: Meter Rebuild 1/19			$1,478		
Well #6: Hypo-Chlorinator 5/17	$1,900		$2,016		$2,139
CISTERNS (7)					
Cisterns - Clean 7/02					
COMMUNICATION SYSTEM					
Cisterns - Probe 3/19	$2,090				
Radio System Hardware 11/19	$55,738				
Alarm Agent 2/20		$3,262			
FUTURE WELL REPLACEM					
Drill & Install New Well #5			$403,175		
Drill & Install New Well #6					
Drill & Install New Well #7 (11/17)					
WELL ENCLOSURE FENCI					
Well #2, #4, #5 - Wood Fencing					
Well #2, #4, #5 - Split Rail Fence					
Well #7 - Wood Fencing					
Well #7 - Split Rail Fence					
MISCELLANEOUS					
Fire Hydrants (15) - Replace	$11,148	$11,482	$11,826	$12,181	$12,547
Shutoff Valves	$15,201		$16,127		$17,109
Residential Ultrasonic Water Meters					
Cistern Access Road Chip Seal 7/17	$6,080				
*Caterpillar Generator (Used) 4/20					
Unscheduled Capital Expense	$12,668	$13,048	$13,439	$13,842	$14,258
Inflation factor applied each year	1.267	1.305	1.344	1.384	1.426
Estimated total reserve expense	$186,214	$27,792	$530,712	$26,023	$50,545
CASH FLOW FORECASTS					
Annual reserve funding	$123,890	$127,606	$131,435	$135,378	$139,439
Special Assessment					
After-tax interest earnings	$2,948	$2,592	$3,206	$830	$1,491
Gross reserve account income	$126,838	$130,198	$134,641	$136,207	$140,930
Annual reserve expense	$186,214	$27,792	$530,712	$26,023	$50,545
Net annual reserve income	($59,376)	$102,406	($396,071)	$110,184	$90,385
Reserve Acct - Beginning of year	$491,326	$431,949	$534,355	$138,284	$248,468
Reserve Account - End of year	**$431,949**	**$534,355**	**$138,284**	**$248,468**	**$338,853**

Optimized Cash Flow Analysis for Oak Trails Estates Mutual Water Company

RESERVE COMPONENTS	Fiscal Year Beginning in 2034	Fiscal Year Beginning in 2035	Fiscal Year Beginning in 2036	Fiscal Year Beginning in 2037	Fiscal Year Beginning in 2038
WELL # 7 (New Well a/o 2017)					
Well #7: 100-hp Pump Replace 11/17		$90,755			
Well #7: Meter Rebuild (New 11/17)				$2,648	
Well #7: Hypo-Chlorinator (New 6/19)		$2,269		$2,407	
WELL # 5 (Backup Well)					
Well #5: 50-hp Pump Replace 8/11		$75,629			
Well #5: Meter Rebuild 12/16		$1,664			
WELL # 6					
Well #6: 60-hp Pump Replace 8/19				$96,282	
Well #6: Meter Rebuild 1/19		$1,664			
Well #6: Hypo-Chlorinator 5/17		$2,269		$2,407	
CISTERNS (7)					
Cisterns - Clean 7/02					
COMMUNICATION SYSTEM					
Cisterns - Probe 3/19	$2,423				
Radio System Hardware 11/19					
Alarm Agent 2/20		$3,781			
FUTURE WELL REPLACEM					
Drill & Install New Well #5					
Drill & Install New Well #6					$495,854
Drill & Install New Well #7 (11/17)					
WELL ENCLOSURE FENCI					
Well #2, #4, #5 - Wood Fencing					
Well #2, #4, #5 - Split Rail Fence			$10,127		
Well #7 - Wood Fencing				$6,419	
Well #7 - Split Rail Fence				$3,370	
MISCELLANEOUS					
Fire Hydrants (15) - Replace	$12,923	$13,311			
Shutoff Valves		$18,151		$19,256	
Residential Ultrasonic Water Meters					
Cistern Access Road Chip Seal 7/17		$7,260			
*Caterpillar Generator (Used) 4/20					
Unscheduled Capital Expense	$14,685	$15,126	$15,580	$16,047	$16,528
Inflation factor applied each year	1.469	1.513	1.558	1.605	1.653
Estimated total reserve expense	$30,031	$231,879	$25,707	$148,836	$512,382
CASH FLOW FORECASTS					
Annual reserve funding	$143,622	$147,931	$152,369	$156,940	$161,648
Special Assessment					
After-tax interest earnings	$2,033	$2,727	$2,240	$3,013	$3,080
Gross reserve account income	$145,655	$150,658	$154,608	$159,953	$164,728
Annual reserve expense	$30,031	$231,879	$25,707	$148,836	$512,382
Net annual reserve income	$115,624	($81,221)	$128,901	$11,117	($347,654)
Reserve Acct - Beginning of year	$338,853	$454,477	$373,256	$502,157	$513,274
Reserve Account - End of year	**$454,477**	**$373,256**	**$502,157**	**$513,274**	**$165,619**

Optimized Cash Flow Analysis for Oak Trails Estates Mutual Water Company

RESERVE COMPONENTS	Fiscal Year Beginning in 2039	Fiscal Year Beginning in 2040	Fiscal Year Beginning in 2041	Fiscal Year Beginning in 2042	Fiscal Year Beginning in 2043
WELL # 7 (New Well a/o 2017)					
Well #7: 100-hp Pump Replace 11/17			$108,367		
Well #7: Meter Rebuild (New 11/17)			$2,980		
Well #7: Hypo-Chlorinator (New 6/19)	$2,554		$2,709		$2,874
WELL # 5 (Backup Well)					
Well #5: 50-hp Pump Replace 8/11					
Well #5: Meter Rebuild 12/16			$1,987		
WELL # 6					
Well #6: 60-hp Pump Replace 8/19					$114,966
Well #6: Meter Rebuild 1/19	$1,873				$2,108
Well #6: Hypo-Chlorinator 5/17	$2,554		$2,709		$2,874
CISTERNS (7)					
Cisterns - Clean 7/02				$14,324	
COMMUNICATION SYSTEM					
Cisterns - Probe 3/19	$2,809				
Radio System Hardware 11/19	$74,907				
Alarm Agent 2/20		$4,384			
FUTURE WELL REPLACEM					
Drill & Install New Well #5					
Drill & Install New Well #6					
Drill & Install New Well #7 (11/17)					
WELL ENCLOSURE FENCI					
Well #2, #4, #5 - Wood Fencing					
Well #2, #4, #5 - Split Rail Fence					
Well #7 - Wood Fencing					
Well #7 - Split Rail Fence					
MISCELLANEOUS					
Fire Hydrants (15) - Replace					
Shutoff Valves	$20,429		$21,673		$22,993
Residential Ultrasonic Water Meters			$180,611		
Cistern Access Road Chip Seal 7/17			$8,669		
*Caterpillar Generator (Used) 4/20		$61,373			
Unscheduled Capital Expense	$17,024	$17,535	$18,061	$18,603	$19,161
Inflation factor applied each year	1.702	1.754	1.806	1.860	1.916
Estimated total reserve expense	$122,150	$83,292	$347,766	$32,927	$164,976
CASH FLOW FORECASTS					
Annual reserve funding	$166,497	$171,492	$176,637	$181,936	$187,394
Special Assessment					
After-tax interest earnings	$994	$1,266	$1,803	$787	$1,685
Gross reserve account income	$167,491	$172,758	$178,440	$182,723	$189,080
Annual reserve expense	$122,150	$83,292	$347,766	$32,927	$164,976
Net annual reserve income	$45,341	$89,466	($169,326)	$149,796	$24,104
Reserve Acct - Beginning of year	$165,619	$210,961	$300,427	$131,100	$280,896
Reserve Account - End of year	**$210,961**	**$300,427**	**$131,100**	**$280,896**	**$305,000**

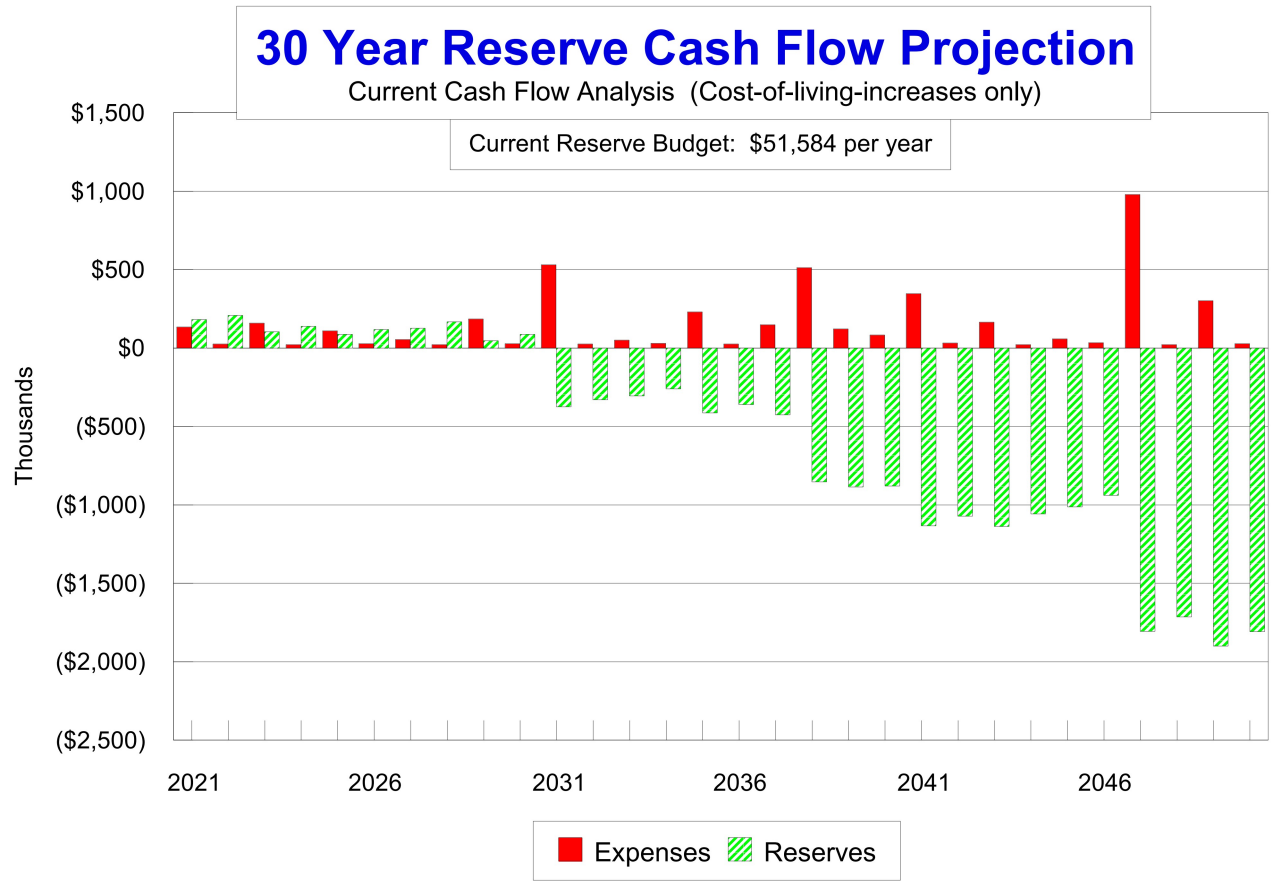
Optimized Cash Flow Analysis for Oak Trails Estates Mutual Water Company

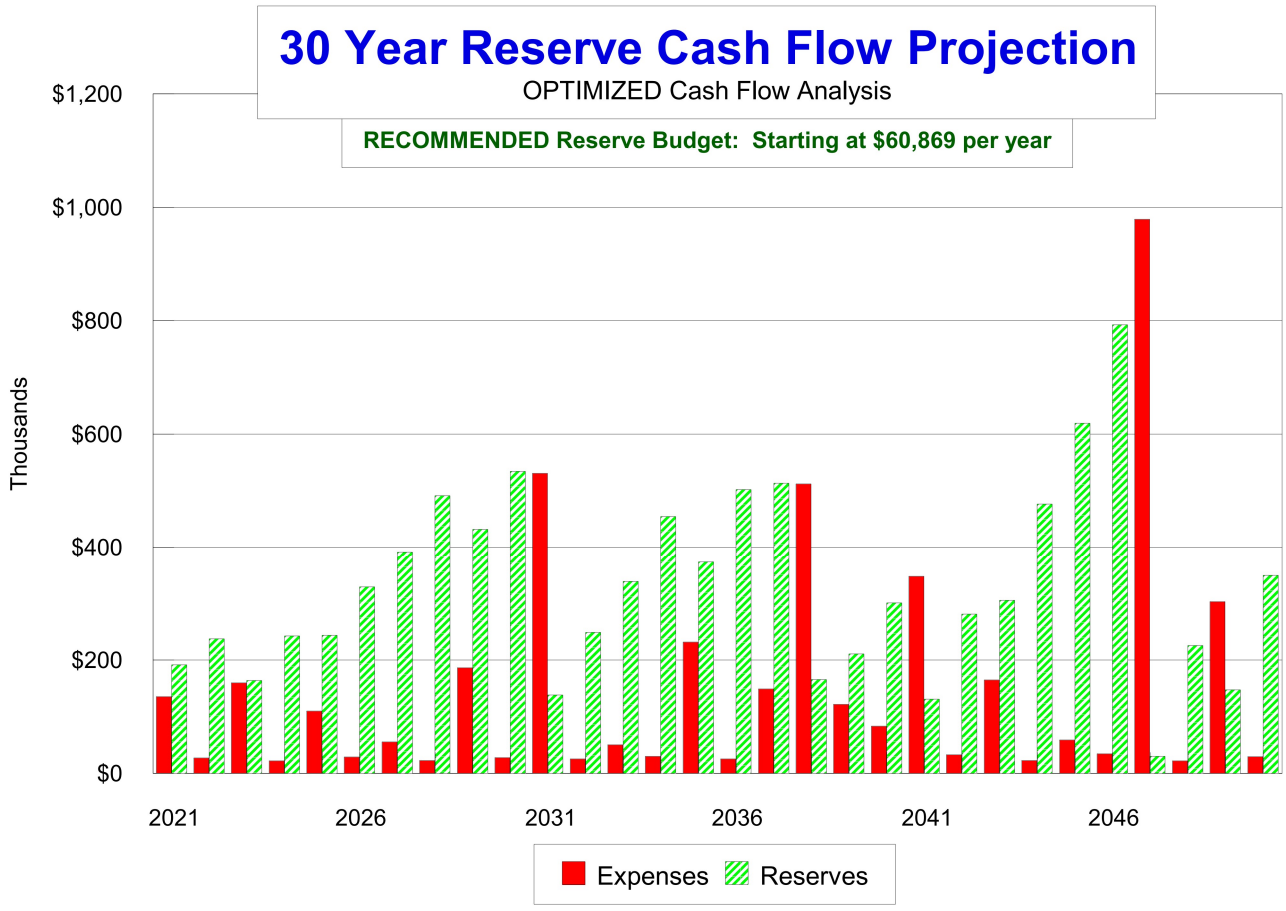
RESERVE COMPONENTS	Fiscal Year Beginning in 2044	Fiscal Year Beginning in 2045	Fiscal Year Beginning in 2046	Fiscal Year Beginning in 2047	Fiscal Year Beginning in 2048
WELL # 7 (New Well a/o 2017)					
Well #7: 100-hp Pump Replace 11/17				$129,395	
Well #7: Meter Rebuild (New 11/17)		$3,354			
Well #7: Hypo-Chlorinator (New 6/19)		$3,049		$3,235	
WELL # 5 (Backup Well)					
Well #5: 50-hp Pump Replace 8/11				$107,830	
Well #5: Meter Rebuild 12/16				$2,372	
WELL # 6					
Well #6: 60-hp Pump Replace 8/19					
Well #6: Meter Rebuild 1/19				$2,372	
Well #6: Hypo-Chlorinator 5/17		$3,049		$3,235	
CISTERNS (7)					
Cisterns - Clean 7/02					
COMMUNICATION SYSTEM					
Cisterns - Probe 3/19	$3,256				
Radio System Hardware 11/19					
Alarm Agent 2/20		$5,082			
FUTURE WELL REPLACEM					
Drill & Install New Well #5					
Drill & Install New Well #6					
Drill & Install New Well #7 (11/17)				$646,977	
WELL ENCLOSURE FENCI					
Well #2, #4, #5 - Wood Fencing				$21,135	
Well #2, #4, #5 - Split Rail Fence			$13,610		
Well #7 - Wood Fencing					
Well #7 - Split Rail Fence				$4,529	
MISCELLANEOUS					
Fire Hydrants (15) - Replace					
Shutoff Valves		$24,394		$25,879	
Residential Ultrasonic Water Meters					
Cistern Access Road Chip Seal 7/17				$10,352	
*Caterpillar Generator (Used) 4/20					
Unscheduled Capital Expense	$19,736	$20,328	$20,938	$21,566	$22,213
Inflation factor applied each year	1.974	2.033	2.094	2.157	2.221
Estimated total reserve expense	$22,992	$59,256	$34,548	$978,877	$22,213
CASH FLOW FORECASTS					
Annual reserve funding	$193,016	$198,807	$204,771	$210,914	$217,241
Special Assessment					
After-tax interest earnings	$1,830	$2,861	$3,716	$4,759	$180
Gross reserve account income	$194,846	$201,668	$208,486	$215,673	$217,421
Annual reserve expense	$22,992	$59,256	$34,548	$978,877	$22,213
Net annual reserve income	$171,854	$142,412	$173,938	($763,204)	$195,208
Reserve Acct - Beginning of year	$305,000	$476,854	$619,265	$793,204	$30,000
Reserve Account - End of year	**$476,854**	**$619,265**	**$793,204**	**$30,000**	**$225,208**

Optimized Cash Flow Analysis for Oak Trails Estates Mutual Water Company

RESERVE COMPONENTS	Fiscal Year Beginning in 2049	Fiscal Year Beginning in 2050
WELL # 7 (New Well a/o 2017)		
Well #7: 100-hp Pump Replace 11/17		
Well #7: Meter Rebuild (New 11/17)	$3,775	
Well #7: Hypo-Chlorinator (New 6/19)	$3,432	
WELL # 5 (Backup Well)		
Well #5: 50-hp Pump Replace 8/11		
Well #5: Meter Rebuild 12/16		
WELL # 6		
Well #6: 60-hp Pump Replace 8/19	$137,276	
Well #6: Meter Rebuild 1/19		
Well #6: Hypo-Chlorinator 5/17	$3,432	
CISTERNS (7)		
Cisterns - Clean 7/02		
COMMUNICATION SYSTEM		
Cisterns - Probe 3/19	$3,775	
Radio System Hardware 11/19	$100,669	
Alarm Agent 2/20		$5,891
FUTURE WELL REPLACEM		
Drill & Install New Well #5		
Drill & Install New Well #6		
Drill & Install New Well #7 (11/17)		
WELL ENCLOSURE FENCI		
Well #2, #4, #5 - Wood Fencing		
Well #2, #4, #5 - Split Rail Fence		
Well #7 - Wood Fencing		
Well #7 - Split Rail Fence		
MISCELLANEOUS		
Fire Hydrants (15) - Replace		
Shutoff Valves	$27,455	
Residential Ultrasonic Water Meters		
Cistern Access Road Chip Seal 7/17		
*Caterpillar Generator (Used) 4/20		
Unscheduled Capital Expense	$22,879	$23,566
Inflation factor applied each year	2.288	2.357
Estimated total reserve expense	$302,693	$29,457
CASH FLOW FORECASTS		
Annual reserve funding	$223,759	$230,471
Special Assessment		
After-tax interest earnings	$1,351	$886
Gross reserve account income	$225,110	$231,357
Annual reserve expense	$302,693	$29,457
Net annual reserve income	($77,583)	$201,900
Reserve Acct - Beginning of year	$225,208	$147,625
Reserve Account - End of year	**$147,625**	**$349,525**

Oak Trails Estates Mutual Water Company





Understanding Your Cash Flow Analysis

Understanding your reserve cash flow analysis report does not necessarily require knowledge of accounting. The cash flow analysis conforms to the suggested example presented in the California State Department of Real Estate's *Reserve Study Guidelines for Homeowner Association Budgets* publication.

When examining the Optimized Cash Flow Analysis on the preceding pages, your primary concern should be to confirm that your reserve balance never falls below zero in the 30-year projection. The Optimized Cash Flow Analysis determines the optimal reserve contribution such that your water company does not have a reserve deficit during the 30-year projection. Another *Status Quo Cash Flow Analysis* is done to calculate what will happen if you continue reserve funding only at current levels without following the recommended reserve contribution. The Status Quo Cash Flow is not printed in this study to avoid confusion by clients trying to figure out which cash flow analysis to follow. Rather, the data is shown in the first bar chart on the preceding page.

Note: Because the cash flow analysis uses a "zero-based" counting system, items to be replaced in year 2021 are shown with zero years remaining life as of the beginning of FY 2021 and items to be replaced the next year are shown with one year remaining life and so on... Thus an item with a 27-year life is shown with 26 years.

Following is a description of each line item in your cash flow analysis report.

RESERVE COMPONENT COSTS

The top portion of the Optimized Cash Flow Analysis itemizes each major capital replacement expense for your water company over the next 30 years. Each of these capital assets – called "reserve components" – is listed with its estimated useful life, estimated remaining life, and estimated cost.

Inflation Factor Applied Each Year
This line-item shows compounded inflation rates used to determine future costs. The first number in this row is 1.000, which means that no inflation is assumed during the first year. This is because cost estimates are in current-year prices. If you repair or replace the items for which you recently obtained price quotes, the price will not yet be influenced by inflation.

The Inflation Factor for the second year in your reserve analysis is equal to the current inflation rate applied to long-term expenses. Notice the inflation factor is compounded in subsequent years thereafter.

Estimated Total Reserve Expense (NOTE: Costs Adjusted For Inflation)

The "*Estimated Total Reserve Expense"* line shows yearly future reserve expense totals multiplied by the compounded inflation rate. For each year (column) in the reserve analysis, this line-item indicates how much money your water company must have in reserve to fund all expenses in that year. You should examine the 30-year projection thoroughly to see which years have the highest expenses. High-expense years significantly deplete your reserve account.

Note the profound effect of compound inflation on future costs. Seeing these inflation-adjusted future costs provides a tangible incentive to set aside adequate funds in reserve.

CASH FLOW FORECASTS

Towards the bottom of the *Optimized Cash Flow Analysis* is the "Cash Flow Forecast" section that reconciles inflation-adjusted future expenses for each year against recommended annual reserve funding, special assessment income (if any) and after-tax interest income. The primary goal of the cash flow forecast is to observe the interplay between expenses and reserves over time with the intention of ensuring that the reserve balance never drops below zero. Each cash flow line item is described below.

Annual Reserve Funding
The "*Annual Reserve Funding"* line shows the recommended regular reserve assessments the water company should budget for its reserve fund in each year. The *Optimized Cash Flow Analysis* determines the optimal annual reserve contribution such that capital expenses will be adequately funded while maintaining a reserve account balance above zero in each of the next 30 years. Therefore, the primary focus of the reserve study is to determine the optimal recommended reserve funding amount as shown on this line that will ensure funding for projected expenses.

Because repair/replacement costs typically increase at the rate of inflation, the cash flow projection assumes annual reserve funding will increase at the same rate to match these inflationary effects.

Special Assessment
The "*Special Assessment"* line shows how much the water company will need to supplement its reserve funding (e.g. regular reserve assessments) with "special assessments" – if special assessments are necessary. It shows how much will need to be assessed and in what years assessments need to be made. If the projection doesn't anticipate a need for a special assessment, there will be nothing shown on this line for each of the next 30 years.

After-Tax Interest Earnings on Reserve Account
Interest earned on reserve account funds can make a substantial contribution to reserve funding. Interest earnings are usually taxed, so the interest income is reduced by your water company's tax rate. Reserve account interest is reinvested in the reserve account in this cash flow model.

Gross Reserve Account Income
The figures on this line represent the sum of the "*Annual Reserve Funding,"* "Special Assessments" (if any), and "*After-Tax Interest Earnings on Reserve Account"* amounts, assuming

reserve account interest is reinvested in the reserve account. But don't confuse this with "net reserve income" because the gross income amount is the reserve income *before* reserve expenses have been paid for that particular year. Sometimes expenses exceed annual reserve funding.

Annual Reserve Expense (from total above)
The *"Annual Reserve Expense"* line simply carries the numbers down from the "*Estimated Total Reserve Expense"* line above. This line represents the water company's total reserve funding liability (expense) for each year. This reserve expense total is then subtracted from the *"Gross Reserve Account Income"* for each year in the cash flow to yield the net reserve income for the year as shown on the following line.

Net Annual Reserve Income (Reserve Expense Minus Reserve Income)
This line shows the reserve cash balance remaining after subtracting major component costs for each year from the annual reserve account income. In other words, it represents the Net Income to your reserve account for the year. NOTE: If the major component costs for one year *exceed* the reserve account income for that year, this number will be negative, thereby reducing the reserve account balance from the prior year. A negative net reserve income amount for any one year doesn't necessarily mean you're going to run out of reserve funds, especially if you have a healthy reserve balance going into that year.

Reserve Account, Beginning of Year
This line-item shows the reserve account balance at the beginning of the year before major reserve component costs for each year (shown in the columns) are expensed.

Reserve Account, End of Year
The "*Reserve Account, End of Year"* line is perhaps the most important part of your cash flow analysis. It shows the net amount of money remaining in your reserve account at the end of each year after major reserve component costs have been paid.

Scan along this "bottom line" of your Cash Flow Analysis to determine which years in the 30-year projection have low projected reserve account balances so you can identify which expenses to anticipate in those years and how to plan for those critical years. Note also that the *Optimized Cash Flow Analysis* has no negative reserve account balances for the duration of the projection because our **SmartReserve**™ software has optimized the reserve contribution to avoid future reserve deficits.

Most water companies request to have the cash flow optimizer determine the appropriate annual reserve contribution such that in the worst case year in the 30-year projection, their reserve account always maintains a minimum balance that is more than zero dollars. This is a way of implementing a contingency buffer for unforeseen expenses.

In summary, the Optimized Cash Flow Analysis provides an efficient way to deploy your reserve funds over time to maintain & replace common area assets. The goal is to determine a smooth pattern of gradual funding increases that ensures sufficient reserve funds are available to make it through the "peaks and valleys" of expenses during the next 30 years.

Reserve Component Allocations Derived From Optimized Cash Flow Analysis

The ***Reserve Component Allocations*** report on the following page is useful to water companies meeting the following conditions:

* Your water company keeps track of reserve funds allocated to each reserve component, (for example, "we have $33,333 in our roofing fund, $4,444 in our paving fund, $5,555 in our painting fund, etc.") AND
* Your water company has decided to base the forthcoming year's reserve budget on the recommendations set forth in the *Optimized Cash Flow Analysis* on the preceding pages.

(On the contrary, if your water company simply considers reserves as a pool of funds in the cash flow analysis "Cash Flow Pooling," then this report is probably not needed).

The ***Reserve Component Allocations*** report helps your water companies to:

* Reallocate your fiscal year-end reserve fund balance proportionally among all reserve components (you can find this information on the following page in the second column from the right, titled *"FY 2021 Begin Cash Flow Balance"*).
* Determine how much of your newly-chosen reserve budget – per the *Optimized Cash Flow Analysis* funding recommendation – should be allocated to each reserve component. For example, a water company might want to indicate "in the forthcoming year, we budgeted $30,000 for reserves, of which, $12,000 was applied to the paving fund, $5,000 to the painting fund, and $13,000 to the roofing fund, etc." You can find this information on the following page in the rightmost column, titled *"2021 Cash Flow Allocations"*

  Note that the total of the annual allocations for each reserve component equals the annual reserve funding amount recommended by the *Optimized Cash Flow Analysis.*

If your water company has elected to fund reserves via the straight-line depreciation method (generally a less precise funding method than the cash flow analysis), the reserve component allocations are on the straight-line analysis report in the next section.

Oak Trails Estates Mutual Water Company

RESERVE COMPONENT ALLOCATIONS DERIVED FROM OPTIMIZED CASH FLOW ANALYSIS

Use this report if you keep track of reserve funds allocated to each individual reserve component

AND if you have selected the optimized cash flow funding recommendation

RESERVE COMPONENTS	Estimated Useful Life (years)	Estimated Remaining Life (years)	Estimated Current Cost to Replace	Estimated Future Cost to Replace	Jan 1, 2021 Begin Cash Flow Balances	FY 2021 Cash Flow Allocations
WELL#7 (New Well a/o 2017)						
Well #7: 100-hp Pump Replace 11/17	6	2	$60,000	$63,654	$16,478	$6,337
Well #7: Meter Rebuild (New 11/17)	4	0	$1,650	$1,650	$680	$261
Well #7: Hypo-Chlorinator (New 6/19)	2	0	$1,500	$1,500	$618	$475
WELL#5 (Backup Well)						
Well #5: 50-hp Pump Replace 8/11	12	2	$50,000	$53,045	$17,165	$2,640
Well #5: Meter Rebuild 12/16	6	2	$1,100	$1,167	$302	$116
WELL #6						
Well #6: 60-hp Pump Replace 8/19	6	4	$60,000	$67,531	$8,239	$6,337
Well #6: Meter Rebuild 1/19	4	2	$1,100	$1,167	$227	$174
Well #6: Hypo-Chlorinator 5/17	2	0	$1,500	$1,500	$618	$475
CISTERNS (7)						
Cisterns - Clean 7/02	20	1	$7,700	$7,931	$3,013	$244
COMMUNICATION SYSTEMS						
Cisterns - Probe 3/19	5	3	$1,650	$1,803	$272	$209
Radio System Hardware 11/19	10	8	$44,000	$55,738	$3,625	$2,788
Alarm Agent 2/20	5	4	$2,500	$2,814	$206	$317
FUTURE WELL REPLACEMENT						
Drill & Install New Well #5	30	10	$300,000	$403,175	$82,391	$6,337
Drill & Install New Well #6	30	17	$300,000	$495,854	$53,554	$6,337
Drill & Install New Well #7 (11/17)	30	26	$300,000	$646,977	$16,478	$6,337
WELL ENCLOSURE FENCING						
Well #2, #4, #5 - Wood Fencing	20	6	$9,800	$11,702	$2,826	$311
Well #2, #4, #5 - Split Rail Fence	10	5	$6,500	$7,535	$1,339	$412
Well #7 - Wood Fencing	20	16	$4,000	$6,419	$330	$127
Well #7 - Split Rail Fence	10	6	$2,100	$2,508	$346	$133
MISCELLANEOUS						
Fire Hydrants (15) - Replace	1	0	$8,800	$8,800	$3,625	$5,577
Shutoff Valves	2	0	$12,000	$12,000	$4,943	$3,802
Residential Ultrasonic Water Meters	20	0	$100,000	$100,000	$41,195	$3,169
Cistern Access Road Chip Seal 7/17	6	2	$4,800	$5,092	$1,318	$507
*Caterpillar Generator (Used) 4/20	20	19	$35,000	$61,373	$721	$1,109
Unscheduled Capital Expense	1	0	$10,000	$10,000	$4,120	$6,337
TOTALS			$1,325,700	$2,030,934	$264,628	$60,869

Straight-Line Depreciation Analysis and Percent Funded Estimate

A ***Straight-Line Depreciation Analysis and Percent Funded Report*** follows this page. This type of analysis is occasionally used by water companies that track reserve expenses individually.

Straight-Line Analysis is often referred to as a *component method* because funding for each reserve component is determined individually. This differs from the *Cash Flow Analysis* method which determines funding for the aggregate group of reserve component expenses during each year in a 30-year projection and makes sure there are enough reserves in each of those years for that group of expenses.

The rightmost column in the analysis on the next page represents the amount of funds necessary to *defray the cost of depreciation* for all reserve components in the forthcoming year. This amount alone is not always the proper annual reserve funding amount. If there is "unfunded depreciation liability-to-date" (e.g. not enough funds have been saved in past years), the funding amount will need to be more than just the annual depreciation total.

The reserve fund status, expressed in terms of the *"**Percent Funded Estimate**,"* is a required disclosure and is calculated from the Straight-Line Analysis as follows:

$$\text{Percent Funded Estimate} = \frac{\text{Reserve Account Balance}}{\text{Cumulative-to-date depreciation liability}}$$

The percent funded estimate is essentially a measure of the ***strength of reserves relative to cumulative depreciation of assets*** such as roofing, paving, etc.

If the water company is not 100% funded for depreciation-to-date (fully funded), the report shows the *reserve deficit*, known as the *"Unfunded Depreciation Liability."* This is the amount the water company would need to add to reserves in order to be 100% funded.

For more description of the straight-line analysis method used in this report, refer to the "*Reserve Analysis Methodology*" section in this study.

Oak Trails Estates Mutual Water Company

STRAIGHT-LINE DEPRECIATION & PERCENT FUNDED ANALYSIS
Inflation-Adjusted Method

RESERVE COMPONENTS	Estimated Useful Life (years)	Estimated Remaining Life (years)	Estimated Current Cost to Replace	End Dec 2020 100% Funded Amount	Jan 1, 2021 Beginning Fund Balances	FY 2021 Annual Depreciation
WELL#7 (New Well a/o 2017)						
Well #7: 100-hp Pump Replace 11/17	6	2	$60,000	$40,000	$16,478	$10,300
Well #7: Meter Rebuild (New 11/17)	4	0	$1,650	$1,650	$680	$425
Well #7: Hypo-Chlorinator (New 6/19)	2	0	$1,500	$1,500	$618	$773
WELL#5 (Backup Well)						
Well #5: 50-hp Pump Replace 8/11	12	2	$50,000	$41,667	$17,165	$4,292
Well #5: Meter Rebuild 12/16	6	2	$1,100	$733	$302	$189
WELL #6						
Well #6: 60-hp Pump Replace 8/19	6	4	$60,000	$20,000	$8,239	$10,300
Well #6: Meter Rebuild 1/19	4	2	$1,100	$550	$227	$283
Well #6: Hypo-Chlorinator 5/17	2	0	$1,500	$1,500	$618	$773
CISTERNS (7)						
Cisterns - Clean 7/02	20	1	$7,700	$7,315	$3,013	$397
COMMUNICATION SYSTEMS						
Cisterns - Probe 3/19	5	3	$1,650	$660	$272	$340
Radio System Hardware 11/19	10	8	$44,000	$8,800	$3,625	$4,532
Alarm Agent 2/20	5	4	$2,500	$500	$206	$515
FUTURE WELL REPLACEMENT						
Drill & Install New Well #5	30	10	$300,000	$200,000	$82,391	$10,300
Drill & Install New Well #6	30	17	$300,000	$130,000	$53,554	$10,300
Drill & Install New Well #7 (11/17)	30	26	$300,000	$40,000	$16,478	$10,300
WELL ENCLOSURE FENCING						
Well #2, #4, #5 - Wood Fencing	20	6	$9,800	$6,860	$2,826	$505
Well #2, #4, #5 - Split Rail Fence	10	5	$6,500	$3,250	$1,339	$670
Well #7 - Wood Fencing	20	16	$4,000	$800	$330	$206
Well #7 - Split Rail Fence	10	6	$2,100	$840	$346	$216
MISCELLANEOUS						
Fire Hydrants (15) - Replace	1	0	$8,800	$8,800	$3,625	$9,064
Shutoff Valves	2	0	$12,000	$12,000	$4,943	$6,180
Residential Ultrasonic Water Meters	20	0	$100,000	$100,000	$41,195	$5,150
Cistern Access Road Chip Seal 7/17	6	2	$4,800	$3,200	$1,318	$824
*Caterpillar Generator (Used) 4/20	20	19	$35,000	$1,750	$721	$1,803
Unscheduled Capital Expense	1	0	$10,000	$10,000	$4,120	$10,300
TOTALS			$1,325,700	$642,375	$264,628	$98,934

Reserve Account Balance, estimated (or projected) as of start of new fiscal year:	$264,628
Percent Funded Estimate (reserves / cumulative depreciation liability):	41.2%
*Reserve Deficiency (100% Funded reserve balance minus actual reserve balance):	$377,747
RECOMMENDATIONS, IF 100% FUNDED:	
Monthly Capital Asset Depreciation:	$8,245
Average Monthly Capital Asset Depreciation per Member:	$114.51

NOTE: Year 2021 Annual Depreciation is based on 3.0% inflation-adjusted straight-line depreciation
(Current Cost to Replace) / (Estimated Useful Life) X (Inflation for 1 Year)

Reserve Component Description (Physical Analysis)

California Civil Code Section 1365.5 **[New: Civ. Code §5500]** requires a diligent visual inspection of the water company's capital assets every 3 years.

"At least once every three years, the board shall cause to be conducted a reasonably competent and diligent visual inspection of the accessible areas of the major components that the association is obligated to repair, replace, restore, or maintain as part of a study of the reserve account requirements of the common interest development, if the current replacement value of the major components is equal to or greater than one-half of the gross budget of the association, excluding the association's reserve account for that period. The board shall review this study, or cause it to be reviewed, annually and shall consider and implement necessary adjustments to the board's analysis of the reserve account requirements as a result of that review."

The following pages contain descriptions of each identified reserve component maintained by the water company. Each reserve component is shown with its estimated useful life, remaining life, and current cost to replace. Supporting information is included where applicable.

This information is analyzed by computer to produce the cash flow analysis and straight-line analysis reports.

This component inventory and condition assessment information was obtained during an on-site visit in December 2020 and via subsequent discussions with local contractors, board members or agents for the board. No destructive testing was done to determine condition of components that are not readily accessible (for example, sampling plumbing lines or flat roof core samples).

Remaining life estimates are based on typical useful life expectancy minus effective age of components (which may not be the same as chronological age). Published costs and life expectancies may also be used.

No representation is made as to how much *actual* costs and *actual* life expectancies at the time of future replacement may differ from estimates contained herein. Because actual contractor bids vary considerably, it is entirely possible that the water company may select a bid that is more costly or less costly than the estimates provided herein. Also note that any contractor estimates discussed on the following pages are not to be interpreted as formal bids or as an endorsement of that particular contractor.

This on-site inspection is not to be considered as a project audit or quality inspection. A reserve study is a *projection*, not a *prediction*. **It is not intended to be a maintenance guide**. Rather, it is a financial planning document.

Reserve Component Photographic Record

Well Head

Generator at Well #7 (April 2020 – Used)

Well Control System

Double Fence Enclosure for Well

New Well #7 (2017)

Double Fencing (Wood Board & Split Rail)

Well #7: 100-hp Pump Replace 11/17

Location: Well #7.	**Quantity:** 1 100-hp Pump Full Replacement.
Remaining Life: 2 Years.	**Typical Useful Life:** 6 Years.
Comments: The new Well #7 was drilled in Fall 2017 and has a 100-hp pump needing replacement about every 6 years, with an estimated cost of about $60K - per watermaster.	
Current Replacement Cost: $60,000 at $60,000 per 100-hp Pump Full Replacement..	
Preventative Maintenance: Regular inspection.	

Well #7: Meter Rebuild (New 11/17)

Location: Well #7.	**Quantity:** 1 Well meter rebuild.
Remaining Life: 0 Year (within next 12 months).	**Typical Useful Life:** 4 Years.
Comments: The new Well #7 was drilled in Fall 2017 and has a well meter that will need replacement about every 4 years, with an estimated cost of about $1500 - per watermaster. Cost new is about $2,000+, but can be rebuilt for about $1600+.	
Current Replacement Cost: $1,650 at $1,650 per Well meter rebuild.	
Preventative Maintenance: Regular inspection.	

Well #7: Hypo-Chlorinator (New 6/19)

Location: Well #7.	**Quantity:** 1 Hypo-Chlorinator.
Remaining Life: 0 Year (within next 12 months).	**Typical Useful Life:** 2 Years.
Comments: The chlorinators bleed chlorine into the water system at a prescribed rate to ensure proper chlorination. They typically have a 2 year useful life because the chlorine is quite corrosive. The new Well #7 was drilled in Fall 2017. The hypochlorinator was replaced in June 2019.	
Current Replacement Cost: $1,500 at $1,500 per Hypo-Chlorinator.	
Preventative Maintenance: Regular inspection.	

Well #5: 50-hp Pump Replace 8/11

Location: Well #5.	**Quantity:** 1 50-hp pump.
Remaining Life: 2 Years.	**Typical Useful Life:** 12 Years.
Comments: The 50-hp pump for Well #5 was installed in March 2002 and had a motor replacement in August 2005. New 50-HP pump in August 2011 for about $44,000. Rather than replace the motor only midway in the service life of a pump, these pumps get a lot of use and the watermaster suggests it no longer makes sense to replace just the pump motor and then a few years later replace the entire pump when just the pump mechanism fails. As this is a backup well, plan full pump/motor replace and clean every 10-12 years.	
Current Replacement Cost: $50,000 Per prior cost adjusted for inflation.	
Preventative Maintenance: Regular inspection.	

Well #5: Meter Rebuild 12/16

Location: Well #5.	**Quantity:** 1 Well meter rebuild.
Remaining Life: 2 Years.	**Typical Useful Life:** 6 Years.
Comments: The well meter for Well #5 was replaced in August 2005. Cost new is about $2,000, but can be rebuilt for about half that at about $1100. New well meter was installed in April 2013, rather than rebuilding because new communications system installed, but hereafter will try to continue rebuilding as needed.	
Current Replacement Cost: $1,100 at $1,100 per Well meter rebuild.	
Preventative Maintenance: Regular inspection.	

Well #6: 60-hp Pump Replace 8/19

Location: Well #6.	**Quantity:** 1 60-hp pump.
Remaining Life: 4 Years.	**Typical Useful Life:** 6 Years.
Comments: The water company drilled a new Well #6 to replace #4 in May 2009. Thereafter, there will be 60-hp Pump Replacement. Rather than replace the motor only midway in the service life of a pump, these pumps get a lot of use and the watermaster suggests it no longer makes sense to replace just the pump motor and a few years later replace the entire pump when just the pump mechanism fails. So scheduling changed for full pump/motor replace and clean every 6 years. Pump motor in 8/14 for $21K. .	
Current Replacement Cost: $60,000 Per prior cost adjusted for inflation.	
Preventative Maintenance: Regular inspection.	

Well #6: Meter Rebuild 1/19

Location: Well #6.	**Quantity:** 1 Well meter rebuild.
Remaining Life: 2 Years.	**Typical Useful Life:** 4 Years.
Comments: The well meter for Well #6 was installed in May 2009 when the new well was drilled to replace the prior Well #4. Thereafter, the water company will need to budget for recurring Meter Rebuild costs thereafter. Cost new is about $2,000, but can be rebuilt for about half that at about $1100. Since this one has outlasted the typical 4-year useful life, figure zero years remaining life.	
Current Replacement Cost: $1,100 at $1,100 per Well meter rebuild.	
Preventative Maintenance: Regular inspection.	

Well #6: Hypo-Chlorinator 5/17

Location: Well #6.	**Quantity:** 1 Hypo-Chlorinator.
Remaining Life: 0 Year (within next 12 months).	**Typical Useful Life:** 2 Years.
Comments: The Hypo-Chlorinator for Well #6 was installed in May 2009 when the new well was drilled to replace Well #4. They typically have a short useful life because the chlorine is quite corrosive. The water company will need to budget for recurring Hypo-Chlorinator costs every 2 years. Replaced in Oct 2014 and again in May 2016. Cost had been about $2,200, but Well #7's Hypo-Chlorinator cost is about $1500. Replaced in May 2017.	
Current Replacement Cost: $1,500 at $1,500 per Hypo-Chlorinator.	
Preventative Maintenance: Regular inspection.	

Cisterns - Clean 7/02

Location: Cisterns.	**Quantity:** 7 Cistern - Clean.
Remaining Life: 1 Year.	**Typical Useful Life:** 20 Years.
Comments: There are 7 underground brick cisterns that need periodic cleaning every 10-20 years or so. This was last done in July 2002 and the watermaster indicated in 2017 it may last another year (e.g. 17 year life) before needing cleaning. Cost is about $1100 per cistern.	
Current Replacement Cost: $7,700 at $1,100 per Cistern - Clean.	
Preventative Maintenance: Regular inspection.	

Cisterns - Probe 3/19

Location: Cisterns.	**Quantity:** 1 Probe.
Remaining Life: 3 Years.	**Typical Useful Life:** 5 Years.
Comments: The cistern probe was replaced in May 2008. Replaced again in March 2011 for about $1,500. Cost shown has been adjusted for inflation.	
Current Replacement Cost: $1,650 at $1,650 per Probe.	
Preventative Maintenance: Regular inspection.	

Radio System Hardware 11/19

Location: Premises.	**Quantity:** 4 Communication system hardware per site.
Remaining Life: 8 Years.	**Typical Useful Life:** 10 Years.
Comments: The communication system hardware consists of probes (see above), radio transmitters, paging system, etc. For the electronics hardware, assume a typical 5-10 year useful life and was last done in 2013 for $28,000 for (4) sites. That was about $9000-$9500 replacement cost per site, but as of 2017, a provided budget estimate for all 4 sites would be about $40K. In 2021, cost shown has been adjusted for inflation. Replaced in Nov 2019.	
Current Replacement Cost: $44,000 at $11,000 per Communication system hardware per site.	
Preventative Maintenance: Regular inspection.	

Alarm Agent 2/20

Location: Premises.	**Quantity:** 1 Alarm Agent.
Remaining Life: 4 Years.	**Typical Useful Life:** 5 Years.
Comments: An alarm agent was added in April 2009 for $4000 and wellmaster indicates typical useful life at about 5 years. Replaced in Feb 2020 for about $2,500.	
Current Replacement Cost: $2,500 at $2,500 per Alarm Agent.	
Preventative Maintenance: Regular inspection.	

Drill & Install New Well #5

Location: Premises.	**Quantity:** 1 New well drilling, pump, and motor - cost adjusted for inflation since prior study.
Remaining Life: 10 Years.	**Typical Useful Life:** 30 Years.
Comments: The water company will need reserves to eventually replace wells every 30 years due to a variety of possible reasons including shifting substrate that may damage an existing well, changing aquifer patterns, or general well deterioration. $275,000 was the total cost, including new well drilling and new pump & motor for a 12" well completed in Fall 2017 (Well #7, over 1000' deep). Cost shown has been adjusted for inflation.	
Current Replacement Cost: $300,000 at $300,000 per New well drilling, pump, and motor - cost adjusted for inflation since prior study..	
Preventative Maintenance: Regular inspection.	

Drill & Install New Well #6

Location: Premises.	**Quantity:** 1 New well drilling, pump, and motor - cost adjusted for inflation since prior study.
Remaining Life: 17 Years.	**Typical Useful Life:** 30 Years.
Comments: The water company will need reserves to eventually replace wells every 30 years due to a variety of possible reasons including shifting substrate that may damage an existing well, changing aquifer patterns, or general well deterioration. $275,000 was the total cost, including new well drilling and new pump & motor for a 12" well completed in Fall 2017 (Well #7, over 1000' deep). (Steel is needed for wells over 600' deep). Cost shown has been adjusted for inflation.	
Current Replacement Cost: $300,000 at $300,000 per New well drilling, pump, and motor - cost adjusted for inflation since prior study..	
Preventative Maintenance: Regular inspection.	

Drill & Install New Well #7 (11/17)

Location: Premises.	**Quantity:** 1 New well drilling, pump, and motor - cost adjusted for inflation since prior study.
Remaining Life: 26 Years.	**Typical Useful Life:** 30 Years.
Comments: The water company will need reserves to eventually replace wells every 30 years due to a variety of possible reasons including shifting substrate that may damage an existing well, changing aquifer patterns, or general well deterioration. $275,000 was the total cost, including new well drilling and new pump &motor for a 10" well completed in Fall 2017 (Well #7 over 1000' deep). Cost shown has been adjusted for inflation.	
Current Replacement Cost: $300,000 at $300,000 per New well drilling, pump, and motor - cost adjusted for inflation since prior study..	

Well #2, #4, #5 - Wood Fencing

Location: Surrounding wells.	**Quantity:** 222 LF.
Remaining Life: 6 Years.	**Typical Useful Life:** 20 Years.
Comments: The four wells (Well #2, 4, 5, 7) have had new wood fences installed over the past 10-12 years with Well #5's fence about 12 years ago and Well #2's fence about 11 year ago. Well #7 was installed in 2017, so is substantially newer so shown on a separate line. They are grouped here because of variable aging rates and useful life reduced to 10 years in 2009 because they hadn't been holding up well. But life extended a/o 2017 because repairs are keeping the fences in good shape.	
Current Replacement Cost: $9,800 at $44 per LF.	
Preventative Maintenance: To prevent dry rot, eliminate all wood-to-earth contact at posts and remove plant growth on wood fences.	

Well #2, #4, #5 - Split Rail Fence

Location: Surrounding wells.	**Quantity:** 294 LF.
Remaining Life: 5 Years.	**Typical Useful Life:** 10 Years.
Comments: Each well has a ring of split-rail/barbed wire fence surrounding the wells to protect the plants serving as a visual shield. Over time, this fencing will need replacement as some of the posts will be dry-rotted and some of the cross-boards will also deteriorate, whether by termites or dryrot. Wells #2 & #4 have 90 LF of split rail fence, while Well #5 has about 114 LF. Useful life decreased to 10 years in 2009 because needed some repairs.	
Current Replacement Cost: $6,500 at $22 per LF.	
Preventative Maintenance: Regular inspection.	

Well #7 - Wood Fencing

Location: Surrounding wells.	**Quantity:** 90 LF Approx.
Remaining Life: 16 Years.	**Typical Useful Life:** 20 Years.
Comments: The fence for Well #7 is to be built near the end of 2017 or early 2018 and is substantially newer than the others, so replacement cost & scheduling is shown on a separate line. .	
Current Replacement Cost: $4,000 at $44 per LF Approx.	
Preventative Maintenance: To prevent dry rot, eliminate all wood-to-earth contact at posts and remove plant growth on wood fences.	

Well #7 - Split Rail Fence

Location: Surrounding wells.	**Quantity:** 95 LF Approx.
Remaining Life: 6 Years.	**Typical Useful Life:** 10 Years.
Comments: Each well has a ring of split-rail/barbed wire fence surrounding the wells to protect the plants serving as a visual shield. Over time, this fencing will need replacement as some of the posts will be dry-rotted and some of the cross-boards will also deteriorate, whether by termites or dryrot. Wells #2 & #4 have 90 LF of split rail fence, while Well #5 has about 114 LF. Useful life decreased to 10 years in 2009 because needed some repairs.	
Current Replacement Cost: $2,100 at $22 per LF Approx.	
Preventative Maintenance:	

Fire Hydrants (15) - Replace

Location: Along roadsides.	**Quantity:** 1 Fire hydrant.
Remaining Life: 0 Year (within next 12 months).	**Typical Useful Life:** 1 Year.
Comments: The company has 15 fire dry-barrel hydrants designed for freezing areas, but not necessary here. Average life expectancy of 30 years for this type of hydrant, with some failing sooner and some later. Because hydrants may fail at different rates, the water company plans to budget for replacement of about (1-2) hydrant per year at $8,000-$9,000 each until all replaced with wet-barrel hydrants that are easier to maintain. Thereafter, wet barrel hydrants only require cartridge replacement.	
Current Replacement Cost: $8,800 at $8,800 per Fire hydrant.	
Preventative Maintenance: Regular inspection.	

Shutoff Valves

Location: Along roadsides.	**Quantity:** 1 Gate shutoff valve.
Remaining Life: 0 Year (within next 12 months).	**Typical Useful Life:** 2 Years.
Comments: There are various shutoff valves near fire hydrants and elsewhere. They require about $12,000 each to replace (for valve itself and backhoe work & labor). Assume an average failure rate of 1 every other year, although, in reality, there may be more in one year and none in another year. Replaced (4) in 2015 and have about 20 left. By the time all are done, older ones will start needing replacement.	
Current Replacement Cost: $12,000 at $12,000 per Gate shutoff valve.	
Preventative Maintenance: Regular inspection.	

Residential Ultrasonic Water Meters

Location: Each lot.	**Quantity:** 1 Group of Residential Ultrasonic Water Meter.
Remaining Life: 0 Year (within next 12 months).	**Typical Useful Life:** 20 Years.
Comments: The water company had been replacing residential water meters at a rate of about 3 per year but will replace all with ultrasonic meters in 2021 for about $100K. These have about a 20 year (unreplaceable) battery life, so that defines the useful life for each. These will be much less costly to maintain (no moving parts, no pressure loss across meters, no need for periodic cleaning).	
Current Replacement Cost: $100,000 Per budget estimate.	
Preventative Maintenance: Regular inspection.	

Cistern Access Road Chip Seal 7/17

Location: End of Fawn Canyon Road.	**Quantity:** 4,200 SF approximately.
Remaining Life: 2 Years.	**Typical Useful Life:** 6 Years.
Comments: The access road to the cisterns is exclusively used for the purpose of maintaining the cisterns and, as such, should be funded via the water company's budget rather than the Oak Trails HOA budget. Water Company did a double-chipseal in Dec 2012 for $3700 (assume always done in conjunction with other paving). Done again in Jul 2017. Ramsey Paving suggests double chipseal. Midco indicated $0.25/SF to chipseal smaller areas, but assume higher cost due to poor condition and extensive prep.	
Current Replacement Cost: $4,800 Per prior cost adjusted for inflation.	
Preventative Maintenance: Regular inspection.	

*Caterpillar Generator (Used) 4/20

Location: Well #6,7.	**Quantity:** 1 Caterpillar Generator.
Remaining Life: 19 Years.	**Typical Useful Life:** 20 Years.
Comments: The Caterpillar backup generator was installed in April 2020 for $35K. Some years ago, a rep from the Caterpillar Oxnard Office, Alan (431-3180) indicated they can last 15-20 years under routine usage, but with light usage and good maintenance, can last 30-40 years. As this one is used, figure 20 years useful life. He suggested waxing the yellow metal housing periodically just as one would wax a car to preserve the casing.	
Current Replacement Cost: $35,000 Per prior cost adjusted for inflation.	
Preventative Maintenance: Routine maintenance and wax the yellow metal housing periodically just as one would wax a car to preserve the casing.	

Unscheduled Capital Expense

Location: n/a.	**Quantity:** 1 Grouping of unscheduled replacement items.
Remaining Life: 0 Year (within next 12 months).	**Typical Useful Life:** 1 Year.
Comments: Assume an annual contingency allocation of $10,000 to allow for "unscheduled reserve capital replacement expenses" such as overages in bids, vandalism or other unforeseen capital expense requirements.	
Current Replacement Cost: $10,000 at $10,000 per Grouping of unscheduled replacement items..	
Preventative Maintenance:	

After Your Reserve Study is Prepared...

REVIEW: The results should be evaluated by your Board of Directors to determine:

- If regular assessments need to be increased or decreased.
- If special assessments will be needed to fund future repairs or replacement.
- Cost and estimated/projected timing of repairs or replacement in the future.
- If reserve funds will not be expended for several years, consideration should be given to higher-yield medium-term investment.

APPROVE: Indicate approval of the reserve funding plan in the water company minutes.

BUDGET: The Board should also incorporate the results of the reserve study into the annual pro-forma operating budget to ensure that sufficient reserves will be available to fund long-term capital replacement expenditures.

DISTRIBUTE: To comply with California Civil Code 1365 [New: Civ. Code §5300], the Board shall prepare and distribute to all its members the following documents ***not less than 30 days nor more than 90 days prior to the beginning of the water company's fiscal year:***

A *pro forma* operating budget which shall include all of the following:

- The estimated revenue and expenses on an accrual basis.
- A summary of the water company's reserves based upon the most recent review or study conducted pursuant to Civil Code §5500, including the current estimated replacement cost, estimated remaining life, and estimated useful life of each major component – See Page 9.
- The current estimate of the amount of cash reserves necessary to repair, replace, restore or maintain the major components: $642,375.
- The current amount of accumulated cash reserves actually set aside: $264,628.
- The current deficiency in reserve funding expressed on a per unit basis: $5,246/Unit.
- The percentage of actual cash reserves set aside versus estimated cash reserves required (percent funded estimate): 41.2%.
- A statement as to whether the board of directors has determined or anticipates that the levy of one or more of special assessments will be required to repair, replace, or restore any major component.

In lieu of the distribution of the pro forma operating budget required above, the board may elect to distribute a summary of the *pro forma* operating budget to all its members with a written notice that the *pro forma* operating budget is available at the business office of the water company or at another suitable location within the boundaries of the development and that the copies will be provided upon request and at the expense of the water company.

California Civil Code 1365.5 [New: Civ. Code §5500] requires annual reviews of reserve status.

DISCLOSE: Civil Code 1365.2.5 [New: Civ. Code §5570] requires the Board to distribute the ***"Assessment and Reserve Funding Disclosure Summary"*** to all owners. A sample form with supplement by Attorney James Smith follows. We have inserted calculation results from the reserve analysis to address Questions #6 and #7. All other questions are designed for the Board to fill in.

Assessment And Reserve Funding Disclosure Summary

Oak Trails Estates Mutual Water Company

For the fiscal year beginning January 1, 2021

*(**Sample** – Questions #1-4 to be completed by Board of Directors, #6 & 7 already have your data filled in)*

California Civil Code §5300 requires that this Assessment and Reserve Funding Disclosure Summary be distributed to all owners not less than thirty (30) days nor more than ninety (90) days prior to the beginning of the Water Company's fiscal year in the format specified in California Civil Code §5570. The Summary is to be provided with, and accompany, the Water Company's Proforma Operating Budget or Summary thereof that is delivered to all members. . Water companies may be exempt from this requirement, but the disclosure may be distributed anyway for financial transparency purposes.

(1) The regular assessment per ownership interest is $_____ per _____. Note: If assessments vary by the size or type of ownership interest, the assessment applicable to this ownership interest may be found on page ____ of the attached summary.

(2) Additional regular or special assessments that have already been scheduled to be imposed or charged, regardless of the purpose, if they have been approved by the board and/or members:

Date assessment will be due:	**Amount per ownership interest per month or year** (If assessments are variable, see note immediately below):	**Purpose of the assessment**:
	Total:	

Note: If assessments vary by the size or type of ownership interest, the assessment applicable to this ownership interest may be found on page ____ of the attached report.

(3) Based upon the most recent reserve study and other information available to the Board of Directors, will currently projected reserve account balances be sufficient at the end of each year to meet the Water Company's obligation for repair and/or replacement of major components during the next 30 years?

Yes ____ No ____ **NOTE: The current Board has no control over whether future boards implement this funding plan.*

(4) If the answer to (3) is no, what additional assessments or other contributions to reserves would be necessary to ensure that sufficient reserve funds will be available each year during the next 30 years that have not yet been approved by the board or the members?

Approximate date assessment will be due:	**Amount per Ownership Interest per month or year:**:
	Total:

(5) All major components are included in the reserve study and are included in its calculations.

(6) Based on the method of calculation in paragraph (4) of subdivision (b) of California Civil. Code §5570, the estimated amount required in the reserve fund *(if the water company were 100% funded for depreciation-to-date)* at the end of the current fiscal year is **$642,375**, based in whole or in part on the last reserve study or update prepared by Stone Mountain Corporation - *For the fiscal year beginning January 1, 2021. The* projected reserve fund cash balance at the end of the current fiscal year is **$264,628**, resulting in reserves being **41.2%** funded ($264,628 divided by $642,375) at this date and resulting in an estimated reserve deficiency *(difference between 100% funded amount and actual reserves)* on a per-unit basis of **$5,246/Unit**. If an alternative, but generally accepted, method of calculation is also used, the required reserve amount is $_____. (If so, see attached explanation.)

(7) Based on the method of calculation in paragraph (4) of subdivision (b) of **California Civil. Code §5570**, the estimated amount required in the reserve fund at the end of each of the next five budget Years is $ (Refer to line #1 in the table below) , and the projected reserve fund cash balance in each of those Years, taking into account only assessments already approved and other known revenues, is $ (Refer to line #2 in the table below) , leaving the reserve at (Refer to line #3 in the table below) percent funded. If the reserve funding plan approved by the Water company is implemented, the projected reserve fund cash balance in each of those years will be $ (Refer to line #4 in the table below) , leaving the reserve at (Refer to line #5 in the table below) percent funded in each of those years.

End of Fiscal Year That Begins in→	2021	2022	2023	2024	2025
1. Estimated amount required in reserves (100% Funded Amount)	$621,067	$713,487	$675,068	$780,411	$801,624
2. Projected Reserve Fund Cash Balance *(Only assessments already approved)*	$182,350	$207,733	$100,580	$130,422	$72,545
3. Projected Percent Funded Estimate (*Only assessments already approved)*	29.4%	29.1%	14.9%	16.7%	9.0%
4. Projected Reserve Fund Cash Balance *(If reserve funding plan is implemented)*	$191,635	$237,315	$163,510	$242,155	$243,440
5. Projected Percent Funded Estimate *(If reserve funding plan is implemented)*	30.9%	33.3%	24.2%	31.0%	30.4%

Fund balance & Percent funded projections in the #4 & #5 calculations above assume the optimized cash flow analysis plan is adopted.

NOTE: The financial representations set forth in the Summary are based on the best estimates of the preparer at that time. The estimates are subject to change. At the time this summary was prepared, the assumed long-term before-tax interest rate earned on reserve funds was **0.60%** per year, and the assumed long-term inflation rate to be applied to major component repair and replacement costs was **3.00%** per year.

SUPPLEMENT TO ASSESSMENT AND RESERVE FUNDING DISCLOSURE SUMMARY
[Civil Code section 1365.2.5(b)(3)] **[New: Civ. Code §5300(e)]**

Due to factors beyond the control of the Directors, including but not limited to the rate of inflation, the rate at which the major components actually deteriorate, unanticipated damage to the major components, fluctuations in material and labor costs and changes in building codes and regulations, the accuracy of the information set forth in paragraphs 3, 4 and 5 above is not, and cannot be, guaranteed. Depending upon the accuracy of the present and future assumptions used in providing the information in paragraphs 3, 4 and 5, the information and conclusions set forth in said paragraphs may not be correct. Therefore, any person reviewing this Assessment and Reserve Funding Disclosure Summary should not, without conducting their own independent investigation and analysis, rely upon the accuracy of the information set forth in paragraph 3, 4 and 5.

Please note, for purposes of this Assessment and Reserve Funding Disclosure, the words and phrases stated below are given the following meaning:

1. "Estimated remaining useful life" means the time reasonably calculated to remain before a major component will require replacement.

2. "Major component" has the meaning used in section 1365.5 **[New: Civ. Code §5500]**. Components with an estimated remaining useful life of more than thirty (30) Years may be included in a study as a capital asset or disregarded from the reserve calculation, so long as the decision is revealed in the reserve study report and reported in the Assessment and Reserve Funding Disclosure Summary.

"Caution"

***The "Supplement to Assessment and Reserve Funding Disclosure Summary"* shown above is provided as a courtesy by James H. Smith, Esq. of the law firm of Rogers Sheffield & Campbell. Telephone: (805) 963-9721. Your Water company's Governing Documents and/or changes in the law may require this form to be modified.**
The data filled in question #6 & #7 above was derived from Stone Mountain Corporation's reserve study for the water company.