RoseCap Investment Advisors

The next generation of financial advisors...

Financial Plan & Cash Flow Analysis

For

Mesa County Federal Mineral Lease District

July 26rd, 2018

Important Disclosures

Important: The projections or other information generated by this financial plan regarding the likelihood of various financial or investment outcomes, are hypothetical in nature, do not reflect actual financial or investment results, and are not guarantees of future results. The assumptions used in this financial plan are unaudited and based on information provided and reviewed by you.

Please review all data and assumptions used in the report before reviewing the report outputs and recommendations to ensure the accuracy and reasonableness of the assumptions. Those assumptions must be reconsidered on a frequent basis to ensure the results are adjusted accordingly. Even small changes in assumptions can have a large impact on the outcome of this financial plan. Any inaccurate representation by you of any facts or assumptions used in this financial plan invalidates the results. RoseCap Investment Advisors, LLC ("RoseCap") has made no attempt to review the accuracy of the information and assumptions used herein. This plan does not constitute advice in the areas of legal, accounting or tax. It is your responsibility to consult with the appropriate professionals in those areas either independently or in conjunction with this planning process.

The results presented in this financial plan are not predictions of actual results. Actual results may vary to a material degree due to external factors beyond the scope and control of this financial plan. To the extent that historical data is used to produce future assumptions used in the financial plan, past performance is not a guarantee or predictor of future performance. Risks & Uncertainties mentioned in this plan are not all-inclusive.

The results contained herein do not constitute an actual offer to buy, sell or recommend a particular investment or product. All investments are inherently risky. The asset classes and return rates used in the plan are broad in nature. The illustrations are not indicative of the future performance of actual investments, which will fluctuate over time and may lose value. There are risks associated with investing, including the risk of losing a portion or all of your initial investment.

Throughout this financial plan, confidence intervals or estimation bands may be used (i.e. "Top 95%" of future expected outcomes or "Bottom 5%" of future expected outcomes) while making projections about future uncertain outcomes. Projected financial data within the calculated confidence intervals are believed to occur with a higher probability; however, there is still a chance that future financial outcomes will be outside of the calculated confidence intervals. In fact, over a long-term investment horizon there is a high probability that a future outcome will occur that is outside of the calculated confidence intervals. Such confidence intervals are merely calculated probabilities and in no way imply certainty or a guarantee of future financial outcomes, including investment performance.

I. Financial Goal(s):

A Financial Goal is an objective or target of a specific future financial need. A Financial Goal should be objectively measurable and be related to the institution's stated mission statement or strategic directives.

- Fund discretionary grant requests in current year.
- Create permanent fund of sufficient size to generate annual income of $1,000,000 per year for purposes of funding future grant requests.

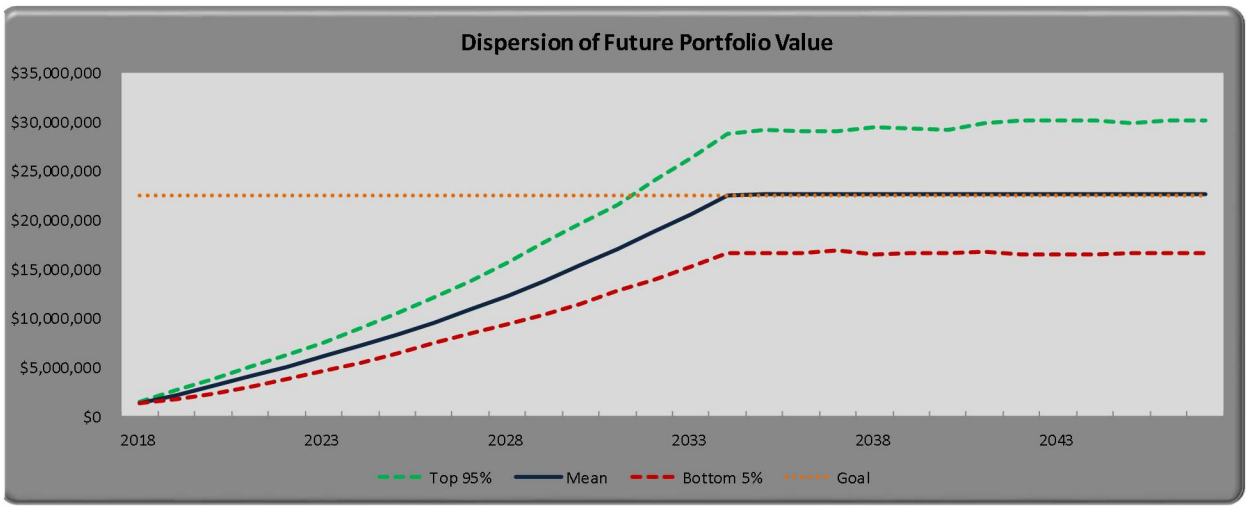
II. Probabilities of Success:

Rarely does a forecast provide absolute success or failure of a financial goal. Due to uncertain future outcomes involved with forecasting (i.e. market returns), assessing the probability of success is a more valuable and accurate approach to forecasting. The tolerance for probabilities of success for the above goal(s) may be stated as:

- 50% Probability of providing a sustained cash stream of $1,000,000 annually beginning in year 2035.

Using a contribution rate based on historical assumptions, the portfolio value is expected to exceed $22,500,000 by year 2035. This level is expected to sustain an annual funding level of $1,000,000 (annual distribution) indefinitely with roughly a 50% probability. Increasing contributions, reducing distributions, or delaying distributions will increase the probability of success. Implementing a spending policy that adjusts cash distributions based on actual market values at the time, can decrease the variability of the permanent fund's market value, but increase the variability of current spending in those years effected.

Probabilities of Success (Cont.):



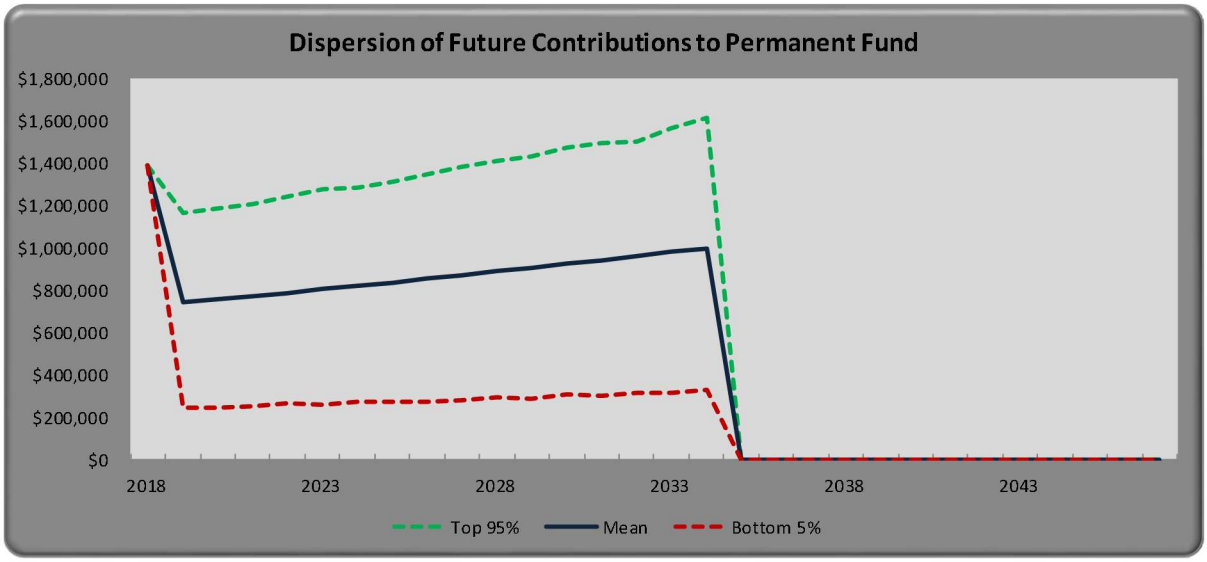
Year	Beginning Balance	Annual Contribution	Annual Distribution	Portfolio Return ($)	Fees & Expenses	Ending Balance	Portfolio Risk Metrics		
							Bottom 5%	Mean	Top 95%
2018	$0	$1,387,727	$0	$18,088	($3,289)	$1,402,526	$1,369,932	$1,402,526	$1,434,826
2019	1,402,526	741,661	0	97,535	(17,734)	2,223,989	1,694,052	2,223,989	2,687,597
2020	2,223,989	756,494	0	143,123	(26,022)	3,097,584	2,332,112	3,097,584	3,808,747
2021	3,097,584	771,624	0	191,587	(34,834)	4,025,961	3,015,423	4,025,961	5,006,713
2022	4,025,961	787,057	0	243,072	(44,195)	5,011,895	3,798,706	5,011,895	6,196,172
2023	5,011,895	802,798	0	297,731	(54,133)	6,058,291	4,616,199	6,058,291	7,486,553
2024	6,058,291	818,854	0	355,724	(64,677)	7,168,192	5,425,350	7,168,192	8,921,222
2025	7,168,192	835,231	0	417,219	(75,858)	8,344,784	6,407,860	8,344,784	10,498,311
2026	8,344,784	851,936	0	482,391	(87,708)	9,591,404	7,425,295	9,591,404	12,069,579
2027	9,591,404	868,974	0	551,424	(100,259)	10,911,543	8,456,244	10,911,543	13,792,875
2028	10,911,543	886,354	0	624,510	(113,547)	12,308,859	9,393,036	12,308,859	15,670,672
2029	12,308,859	904,081	0	701,849	(127,609)	13,787,181	10,348,086	13,787,181	17,678,166
2030	13,787,181	922,162	0	783,654	(142,483)	15,350,515	11,490,592	15,350,515	19,559,623
2031	15,350,515	940,606	0	870,145	(158,208)	17,003,057	12,767,129	17,003,057	21,541,348
2032	17,003,057	959,418	0	961,552	(174,828)	18,749,200	13,957,792	18,749,200	24,018,896
2033	18,749,200	978,606	0	1,058,118	(192,385)	20,593,539	15,221,603	20,593,539	26,294,439
2034	20,593,539	998,178	0	1,160,095	(210,926)	22,540,885	16,656,340	22,540,885	28,800,926
2035	22,540,885	0	(1,004,089)	1,239,749	(225,409)	22,551,136	16,655,304	22,551,136	29,135,248
2036	22,551,136	0	(1,005,114)	1,240,313	(225,511)	22,560,824	16,610,162	22,560,824	29,033,918
2037	22,560,824	0	(1,006,082)	1,240,845	(225,608)	22,569,979	16,834,440	22,569,979	29,020,116
2038	22,569,979	0	(1,006,998)	1,241,349	(225,700)	22,578,630	16,459,468	22,578,630	29,387,364
2039	22,578,630	0	(1,007,863)	1,241,825	(225,786)	22,586,805	16,591,146	22,586,805	29,336,397
2040	22,586,805	0	(1,008,681)	1,242,274	(225,868)	22,594,531	16,649,032	22,594,531	29,202,204

III. Cash Inflow / Contributions:

Cash inflows are the infusion of any outside capital that can be used towards accomplishing or funding the specified goals of the institution.

- $750,000 annual contribution beginning in year 2019 and ending after year 2023.

Cash inflows are provided from oil and gas royalty revenues distributed from the state to those areas effected by energy extraction. Cash inflows occur bi-annually. Cash inflows may be uncertain due to uncontrollable factors. Energy prices, supply and demand of energy resources, regional distribution or transportation limitations, and local, state and federal regulatory environment can all affect future income.



Year	PILT Revenue	Permanent Fund Contribution	Contribution to Risk Metrics		
			Bottom 5%	Mean	Top 95%
2018	N/A	$1,387,727	$1,387,727	$1,387,727	$1,387,727
2019	1,483,322	741,661	242,273	741,661	1,166,354
2020	1,512,989	756,494	246,424	756,494	1,182,288
2021	1,543,249	771,624	249,686	771,624	1,208,101
2022	1,574,114	787,057	262,828	787,057	1,243,279
2023	1,605,596	802,798	258,089	802,798	1,278,876
2024	1,637,708	818,854	271,355	818,854	1,280,137
2025	1,670,462	835,231	275,939	835,231	1,311,425
2026	1,703,871	851,936	273,706	851,936	1,342,703
2027	1,737,949	868,974	279,606	868,974	1,381,608
2028	1,772,708	886,354	293,249	886,354	1,406,529
2029	1,808,162	904,081	287,287	904,081	1,433,266
2030	1,844,325	922,162	308,403	922,162	1,468,387
2031	1,881,211	940,606	303,826	940,606	1,489,609
2032	1,918,836	959,418	314,776	959,418	1,499,900
2033	1,957,212	978,606	317,099	978,606	1,560,883
2034	1,996,357	998,178	331,789	998,178	1,609,182
2035	0	0	0	0	0

IV. Cash Outflow / Distributions:

Cash outflows are distributions that are used to directly or indirectly fund the stated financial goal(s) of the institution.

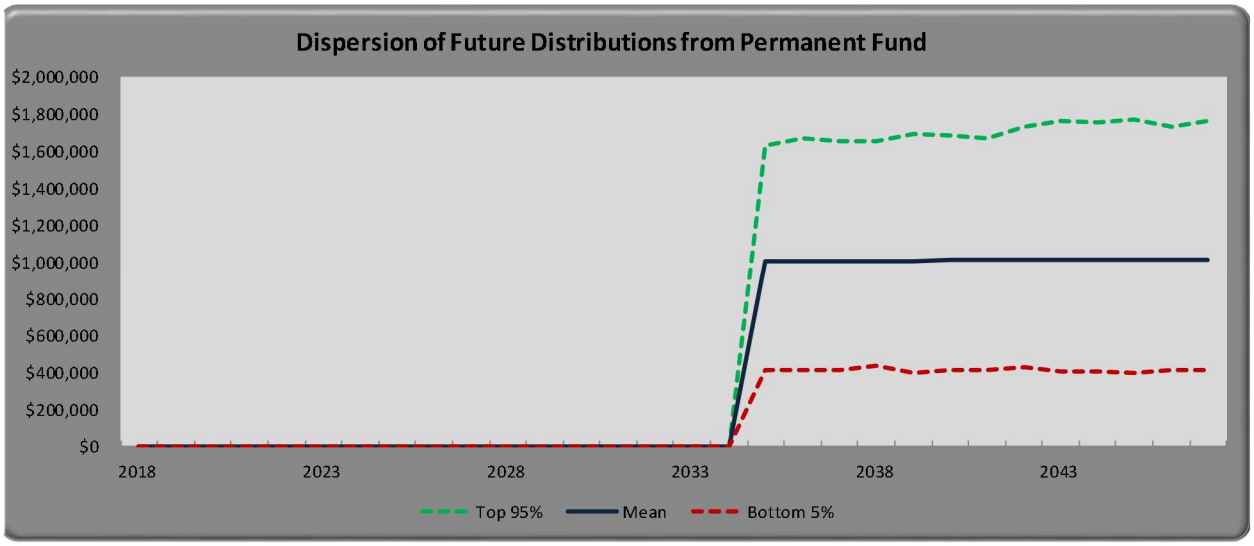
- $1,000,000 annual distribution beginning in year 2035 and continuing as long as funds are available.

Operating cost and annual grant funding from income is not included in cash outflows of the financial plan. Immediate grant funding and operating cost are assumed to be accounted for in the annual budget of the organization, which in turn reduces the potential cash inflows / contributions to the permanent fund. Future grant funding is the only cash outflow.

Distributions are based on a spending rule to reduce volatility of the permanent fund. There are two parts to the spending rule. Part one, or recurring distribution, is a fixed $1,000,000 annually. Part two, or the excess capital spending rule, is based on the permanent funds year ending value relative to a target value. If the portfolio value exceeds the target, additional spending is made. If the portfolio value is lower than the target, then the spending is reduced. The excess spending rule is assumed to be 10% of the difference between the target portfolio value and the actual portfolio value at the time.

Example: Suppose the year-end value of the permanent fund is $23,500,000 in year 2036. The recurring distribution in year 2037 would be $1,000,000, plus $100,000 (10% X ($23.5mm portfolio value - $22.5mm target value) for the spending rule on excess capital. The total distribution target for 2037 would be $1,100,000 ($1,000,000 recurring distribution + $100,000 excess capital rule).

Cash Outflow / Distributions (continued):



Year	Ending Balance	Recurring Distribution	Spending Rule	Total Distribution	Contribution to Risk Metrics		
					Bottom 5%	Mean	Top 95%
2034	22,540,885	0	0	0	0	0	0
2035	22,551,136	1,000,000	4,089	1,004,089	415,634	1,004,089	1,630,093
2036	22,560,824	1,000,000	5,114	1,005,114	415,530	1,005,114	1,663,525
2037	22,569,979	1,000,000	6,082	1,006,082	411,016	1,006,082	1,653,392
2038	22,578,630	1,000,000	6,998	1,006,998	433,444	1,006,998	1,652,012
2039	22,586,805	1,000,000	7,863	1,007,863	395,947	1,007,863	1,688,736
2040	22,594,531	1,000,000	8,681	1,008,681	409,115	1,008,681	1,683,640
2041	22,601,832	1,000,000	9,453	1,009,453	414,903	1,009,453	1,670,220
2042	22,608,731	1,000,000	10,183	1,010,183	427,310	1,010,183	1,729,613
2043	22,615,251	1,000,000	10,873	1,010,873	400,667	1,010,873	1,761,337
2044	22,621,412	1,000,000	11,525	1,011,525	403,971	1,011,525	1,756,008

V. Key Assumptions:

Key assumptions are used throughout financial planning and forecasting. While assumptions are needed to perform any forecast, all should be aware of the limitations of forecasting and the susceptibility of model errors driven by incorrect assumptions made at the time. The following assumptions are believed to be at the focal point of potential errors and deserve attention due to their relative importance to the financial plan.

- Annual contributions (ending 2034).
- Annual distribution (after 2034).
- 5.5% Annual investment return with 6.0% standard deviation (moderate risk, limited to IPS constraints as specified in Colorado Revised Statute 24-51-206].

Key Assumptions (continued):

- Investment percentage returns in one period have no impact on the following period(s) percentage return.
- No relationship between contributions and investment returns.
- No relationship between distributions and investment returns.

Contribution amounts and timing may potential differ significantly from year to year. Currently contributions are modeled using a triangular distribution with a minimum of $0, an expected value of $867,000, and a maximum value of $1,313,000 (before adjusting for inflation).

Annual distributions can have great effect in the long-term viability of the fund, however, this factor can largely be controlled by the fund. The amount of risk this factor presents is directly related to the spending policy of the fund. The current spending policy in place for this financial plan ensures that the fund last indefinitely.

Investment returns and the timing of returns plays an important role to the future viability of the fund. The return of invested capital in the model is estimated at 5.50% annually, with 6.00% Standard deviation. The timing of returns is important due to the dollar value of the fund at the time. For example: a 10% return in year 2 with a $1,000,0000 market value would result in an additional $100,000 in value, while a 10% return at year 10 with a $5,000,000 value would result in a $500,000 increase in value.

The potential relationship between future contributions (driven in part from energy prices and economic activity at the national level) and the return on investments may factor into the risk exposure of the fund. Currently the model assumes zero correlation between future contributions and investment returns.

Likewise, a potential relationship between grant demands and the return on investments may also factor into the risk exposure of the fund. Although spending policy is expected to mitigate most grant funding uncertainty, it could be expected that there could be pressure to increase spending during times of economic contractions. Economic contraction could also be associated with negative investment returns. This would be a positive relationship between investment returns and spending, leading to higher levels of uncertainty. Currently the model assumes zero correlation between future distributions and investment returns.

VI. Risks & Uncertainties:

Risks & uncertainties are variables, both controllable and uncontrollable, that can affect the success of meeting a stated goal.

- Uncertainty around contribution timing and amounts.
- Annual distributions / spending policy.
- Market returns and interest rates.
- Potential relationships between contributions, distributions, and market returns.
- The national economy and energy demand.
- Substitute resources used to meet energy demand.
- Energy transportation infrastructure.
- Political and regulatory environment.

Uncertainty around contribution amounts and timing of contributions both play important roles in the expected success of the goal. Higher contributions that come earlier than expected can increase the probability of success. Conversely, lower contribution amounts that come later than expected can decrease the probability of success.

Annual distributions, or a set spending policy, can greatly affect the probability of goal success, but is also highly controllable. However, unforeseen circumstances may influence future spending policy, which in turn may can change the probability of goal success or even change the goal.

Market returns and interest rates are uncontrollable variables that affect investment returns. Asset allocation is the predominant factor in investment returns and risk and is directly influenced by market returns and interest rates. Fortunately, asset allocation is a controllable factor, and long-term returns (+10 years) demonstrate less estimate errors. However, returns are very inconsistent and difficult to forecast over short periods (0-5 years).

Potential relationships between contributions, distributions, and market returns can impact uncertainty. A very weak or negative relationship between contributions and market returns, or between distributions and market returns, reduce uncertainty. A positive relationship between these factors can increase uncertainty. An example of this may be that during economic weakness one would expect poor market returns causing low or negative investment returns. At the same time, energy demand could be diminished, pushing down prices, decreasing energy production and reducing royalty revenue to the state.

The price of commodities is driven by supply and demand dynamics. A historical relationship exist between the level of economic growth and demand for energy. A high level of economic growth (relative to the past) is likely to result in high demand, increasing prices in the short run, and pushing up supply in the intermediate term. Lower levels of economic growth or economic contractions would likely result in the opposite outcome.

Demand for oil and gas may change regardless of energy demand. Technological innovation or political influence may sway supply and demand for competing resources. Examples of this can be seen in the advancement in battery technology, the increasing efficiency of solar energy panels, government subsidies of "clean energy" and increased regulatory cost to traditional energy sources. These factors can change the production cost and potentially the demand for different sources of energy.

The cost of transportation is a crucial factor in traditional energy production. Resources extracted in areas with efficient transportation systems or are close to the final use location can have an advantage of lower overall production cost. Lower production cost leading to higher profit margins will likely lead to increase production in those areas and potentially lower production in higher cost areas.

Like the transportation infrastructure, the regulatory environment of specific geographical areas can affect production cost and output. Differences between state regulation or assessed fees, taxes or royalties can shift production. Likewise, the difference between the availability of private or public land can effect regional energy production.

VII. Buffers / Controllable Factors (Risk Mitigation):

Buffers or controllable factors are variables within the forecast that, to some degree or another, can be impacted by the organization and change the probability of success of meeting a stated goal.

- Savings rate.
- Spending policy.
- Investment asset allocation / risk target.

The savings rate is the rate that revenue to MCFMLD is put aside into the permanent fund for future uses. For example, if $1,000,000 is received in a year and $750,000 is used for operating expenses and to fund grants in the current year, then $250,000 or 25% is saved for future grant funding. A higher savings rate will help future beneficiaries while decreasing funding to current beneficiaries.

The savings rate may not be constant over time, and perhaps it should not be. Lower savings rates and higher current grant funding may be appropriate based on the current needs of the community and value of current grants. While, higher savings rates may be appropriate if there are fewer community needs or current grant applications offer low value to the community. It is important

however, to understand that these factors influence the long-term success of the goal and should be considered carefully.

Spending policy of invested assets has a great impact on success of the stated goal. Spending policies can implement rules that adjust levels of spending based on actual investment market value at that time in the future. These rules shift uncertainty from the market value of the investments to current grant funding in the future year. Additionally, spending policy may change in the future if the goal(s) of the organization change or goal priorities change. The spending policy assumed in this plan ensures the permanent fund last indefinitely, and continues to be a benefit for the community.

Asset allocation is the dominant factor in both investment risk and return. Asset allocation is the decision to allocate capital between U.S. Equity, U.S. Fixed Income, International Equity, International Fixed Income, Currencies and Commodities, and alternative investments. Higher expected returns are directly related to higher expected risk. And lower levels of risk are expected to lead to lower returns. Determining an appropriate allocation should be based on finding an acceptable level of risk. Additionally, the allocation may be limited or less desirable than an alternative allocation based on statutory restrictions.

VIII. Update & Review

Reviewing the financial plan and updating it as new information comes available is a crucial step in the financial planning process. Assumptions may change, and historical data can replace expected data over time, increasing the reliability of the plan. Additionally, reviewing the plan increases the likelihood of staying on top of controllable factors, and focusing on the long-term success of your goal.

- Review annually during the fourth quarter.
- Update as required with significant changes in assumptions.

Reviewing the financial plan on a set schedule helps ensure its continued use as a tool and allows updated information to be incorporated to improve accuracy. Setting the review in the fourth quarter also allows for updates to the spending policy in the upcoming year as required.

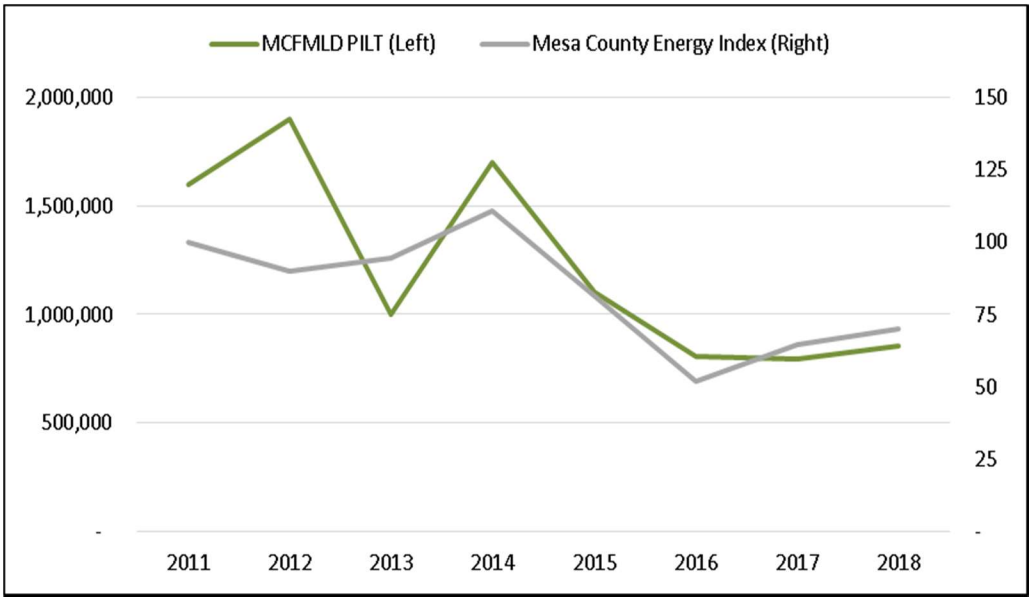
Appendix:

Historical information

Estimating future contributions to the permanent fund is exceptionally difficult due to the short history of the Mesa County FMLD, the shorter history of the permanent fund, and the volatility of the oil and gas industry. To make estimates about future contributions we used a multi-step process to gather historical data on which to base our future assumptions.

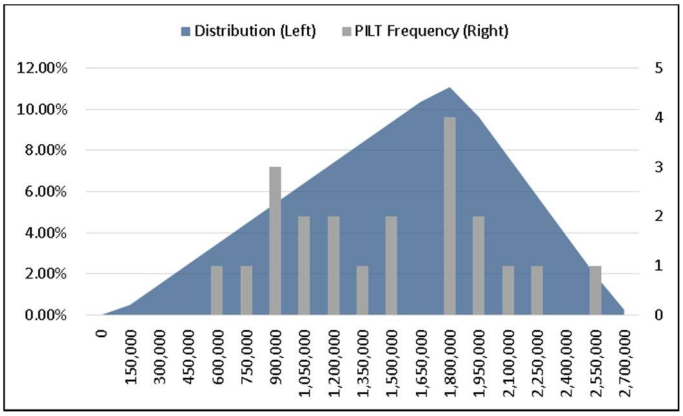
Step #1: We use the limited historical information on revenue for the Mesa County FMLD. Seven years of historical contributions dating back to 2011 are incorporated into the model.

Step #2: We look for a relationship between the revenue in step #1, and prices in publicly traded energy derivatives. Based on this information, we composed a Mesa County Energy Index which is derived from oil prices (WTI) and natural gas prices (Henry Hub) with a six-month lag. The index is composed of a 50/50 mix of both prices.



Step #3: Using the Mesa County Energy Index, with publicly available information dating back more than 20 years, we estimate the hypothetical revenue the Mesa County FMLD might have received had it been in existence over the time. We complete this step by adjusted the hypothetical revenue for inflation, thereby converting historical value into today's dollars.

Estimated Revenue to Mesa County FMLD			
	Year	Estimated Revenue	Inflation Adjusted
Estimate	1997	377,559	578,497
	1998	521,754	786,788
	1999	440,755	647,320
	2000	672,340	954,638
	2001	986,105	1,378,045
	2002	688,534	938,913
	2003	993,074	1,327,186
	2004	1,097,425	1,419,210
	2005	1,386,383	1,734,973
	2006	1,838,002	2,243,521
	2007	1,638,599	1,921,186
	2008	2,163,933	2,537,680
	2009	1,634,717	1,864,589
	2010	1,491,517	1,677,404
Historical	2011	1,600,000	1,746,668
	2012	1,900,000	2,038,213
	2013	1,000,000	1,056,298
	2014	1,700,000	1,782,288
	2015	1,100,000	1,146,544
	2016	809,000	826,081
	2017	796,000	796,000



Step #4: We distribution fit the information from step #3 to create a probability curve to describe the expected future revenue to the Mesa County FMLD. The chart to the upper right shows the hypothetical historical information in the grey histogram, with the fit distribution shaded in blue. The distribution is then used to estimate future revenue to the Mesa County FMLD.

Step #5: We use 50% of the hypothetical annual revenue to the Mesa County FMLD from step #4 to estimate the potential contributions to the permanent fund. The 50% is the estimated savings rate going forward. Using simulation and our probability functions based on historical information we can estimate the future contributions to the permanent fund and their effect on the total value of the permanent fund.