AUGUST 2023

Investment Practices and Performance Evaluation

Lower Colorado River Authority Retirement Plan and Trust

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SECTION 1 - EXECUTIVE SUMMARY

Through our evaluation process, we found the Lower Colorado River Authority Retirement Plan and Trust ("the Plan") to have a reasonable and well-implemented investment strategy. Our research and findings support the contention that the Plan is well-managed with a clear and effective governance structure, a strong and ethical culture, well-established decision-making processes, and a simple and functional investment strategy. We found no critical-path practices which we believe would imperil the health and solvency of the Plan. Through our detailed review, we identified a small number of potential improvement opportunities for consideration by the Plan's Board and Staff, which we have included throughout this report.

SECTION 2 - INTRODUCTION

Verus Advisory ("Verus") was retained by the Board of Trustees of the Plan to conduct an investment program review in satisfaction of the requirements stated in Texas Government Code Section 802.109 Investment Practices and Performance Reports. Verus conducted a similar review in 2020.

Verus is an institutional investment consulting firm acting as an independent reviewer of the Plan's overall investment program. We conducted a thorough programmatic review, utilizing the aggregate experience of a team of investment professionals assigned to this project. We are not an audit firm and did not conduct our work from that perspective. Rather, we are an investment advisory firm with decades of experience implementing leading practice investment solutions for our institutional investor clients. The areas covered in this report are in alignment with those found in Section 10A of Article 6243g-4 of the Texas Civil Statutes and the Pension Review Board's Guidance for Investment Practices and Performance Evaluations (adopted October 17, 2019; Updated October 6, 2022).

Each of the reference documents listed above imply modestly different perspectives on the elements of the investment program to be assessed. We have chosen to focus on the following areas as most relevant to the Plan's investment program:

- Governance structure,
- Policy review and compliance,
- Asset allocation,
- Portfolio implementation,
- Performance benchmarking, and
- Investment management fees and commissions.

Based on our experience, there exists no single set of best practices for all investors to follow in the development and implementation of a successful investment program. Therefore, we defined the scope of our mandate to be to assess the reasonableness of the practices associated with each program element listed above and to offer recommendations on identified areas of potential improvement.

As a result of our review, and similar to the findings of our last review three years ago, we found the Lower Colorado River Authority Plan and Trust to have a reasonable and well-implemented investment strategy. Our research and findings support the contention that the Plan is well-managed with a clear and effective governance structure, a strong and ethical culture, well-established decision-making processes, and a simple and functional investment strategy. We found no critical-path practices which we believe would imperil the health and solvency of the Plan. Through our detailed review, we identified a small number of potential improvement opportunities for consideration by the Plan's Board and Staff, which we have included throughout this report.

SECTION 3 - METHODOLOGY

In completing this report, we utilized three main approaches to evaluate the areas of focus: Trustee and Investment Staff interviews, document review, and quantitative portfolio analysis.

Interviews

We met with the following Board and Staff members via video conference:

- Jim Travis – LCRA CFO, Retirement Board Chair
- Stephen Kellicker – LCRA SVP of Finance, Retirement Board Vice Char
- David Smith – LCRA Treasurer, Retirement Board Secretary
- Stephen Cooper – LCRA Board of Directors Vice Chair, Retirement Board Trustee
- Michael Allen – LCRA Board of Directors, Retirement Board Trustee
- Dale Jurecka – LCRA Director of Environmental Laboratory Services, Retirement Board Trustee
- Aimee Lerman – LCRA Principal Asset Manager, Retirement Board Trustee
- Vic Ramirez – LCRA Senior Associate General Counsel
- Melissa Gregg – LCRA Senior Paralegal
- Randy Cusik – OCIO Provider (SEI)
- Debra Weinstein – OCIO Provider (SEI)

Broadly speaking, the interviews were conducted to uncover general concerns and identify improvement opportunities, as well as to identify areas for further investigation. We specifically asked about Board, Staff, and OCIO effectiveness with respect to culture, structure, resource sufficiency, decision-making processes, and policy compliance. We also initiated unstructured discussion with open-ended questions about what is currently working well and what improvement opportunities may exist.

Document Review

The Verus Project Team utilized the following documentation in its review:

- Investment policy,
- Funding policy,
- Ethics policy,
- Performance reports,
- Meeting minutes,
- Audited financial reports,
- Asset allocation reviews,
- Actuarial valuation, and
- OCIO work product.

Observations made during our document review provided us with key insights into the Plan's work processes and helped us identify improvement opportunities and develop recommendations.

Quantitative Analysis

Members of our Portfolio Analytics Group and Risk Advisory Services Group conducted the following quantitative analyses to assess the reasonableness of the Plan's investment strategy:

- Performance Analysis,
- Mean Variance Analysis,
- Risk Allocation Analysis, and
- Liquidity Analysis.

SECTION 4 - EVALUATION

Governance

Since our last evaluation completed in June of 2020, the Retirement Board changed the governance structure of the LCRA Retirement Plan and Trust. The Retirement Board effectuated this change as a result of concerns over the responsiveness of the Board to emergent investment issues, particularly those related to the performance of investment managers, and the ability of the Board and Staff to provide a sufficient level of focused and expert attention to the Plan's investments.

Following a competitive review process, the Board engaged with a provider of outsourced CIO ("OCIO") services and granted them discretionary decision-making authority over many of the Plan's investment processes. This change has had the intended effect of streamlining the investment decision-making process, placing the authority to make certain decisions in the hands of experienced investment professionals, increasing responsiveness to emergent investment issues, and allowing the Retirement Board to focus on investment policy development and oversight. Throughout our interview process, each of the interviewees described the new governance structure as highly effective and a meaningful improvement over the previous structure, where all decision-making authority resided with the Retirement Board. Our review of the current governance structure supports the legitimacy of this description.

Investment Policy Review and Compliance

The Investment Policy Statement ("IPS") serves as a strategic guide in the planning and implementation of an investment program. An effective IPS anticipates and provides guidance on investment program issues related to investment program governance, asset allocation, managing and monitoring investment managers, risk management, and performance monitoring. The IPS also establishes accountability for the various entities that may work on behalf of the Plan.

As a result of the governance structure transition described above, the Plan's IPS has been simplified to reflect a shift in decision-making authority. With this in mind, we reviewed the IPS to assess sufficiency and effectiveness and also to ensure compliance with key provisions. Upon review, we found the updated policy to provide a sufficient level of guidance for the effective management of the Plan.

> <u>Recommendation</u>
>
> One minor suggested language adjustment for the purpose of clarification follows. The third sentence in Paragraph 1 under Duties and Responsibilities on p. 4 currently reads, "*The OCIO's role is set forth in the IMA and may provide guidance to the Board on matters pertaining to the investment of Plan assets including the creation of the Investment Policy, investment selection, monitoring the Plan's performance, and compliance with the Investment Policy.*" Since it is presumed that it is the OCIO, rather than the OCIO's role, that is to provide guidance, et cetera, this passage may be more clearly written as, "*The OCIO's role is set forth in the IMA. The OCIO*

may provide guidance to the Board on matters pertaining to the investment of Plan assets including the creation of the Investment Policy, investment selection, monitoring the Plan's performance, and compliance with the Investment Policy."

We also reviewed the Plan's current IPS to assess compliance with its key provisions. Compliance was determined to be demonstrated via discussion with staff and/or review of supporting documentation. The table below lists key policy provisions contained in the IPS, whether or not the Plan was in compliance, and our recommendation to attain compliance for those areas where we determined non-compliance.

Guideline Description	**In Compliance? (Y/N/ND*)**
The Board will retain a qualified OCIO to assist in the development and implementation of the Investment Policy.	Y
The Board periodically will review the Investment Policy.	Y
The Board will regularly review the investment performance of the Plan and will monitor the performance of the OCIO to assure the Investment Policy is being followed and progress is being made toward achieving the objectives	Y
Because of the importance of asset allocation in meeting the Plan's long-term return objectives, it will be reviewed at least annually by the Board.	Y
Rebalancing among investment products will occur with the intent that the target asset allocation is maintained within acceptable ranges.	Y
It is the responsibility of the Board to read and understand the information contained in the governing documents of investment vehicles used by the Plan.	ND
All major assumptions including, but not limited to, capital market assumptions and actuarial assumptions will be subject to an annual review by the Board.	Y
Investment performance will be reviewed annually to determine the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy for achieving these objectives.	Y
The OCIO will report on a quarterly basis to review the total Plan, focusing on: • Investment adherence to this Investment Policy and guidelines • Material changes in the investment organizations such as in investment philosophy and personnel, etc. • Drivers of funded status changes • Appropriateness of asset allocation and progress toward goals • Comparison of long-term investment results to appropriate benchmarks as well as market index returns	Y

*Not Determined

<u>Recommendation</u>

We were unable to find clear evidence that the Board of Trustees reviewed governing documents controlling the investment products used in the investment program. In the future, such evidence could include emails to the Trustees containing the governing documents and meeting minutes indicating that discussions of the governing documents has taken place.

Asset Allocation

Asset allocation is broadly recognized as the primary tool institutional investors have at their disposal to meet return objective within a pre-determined risk tolerance. The Plan's risk and return objectives are to achieve its actuarial investment rate, currently set at 7.0% net of fees and expenses[1], within the risk parameters established by the Board.

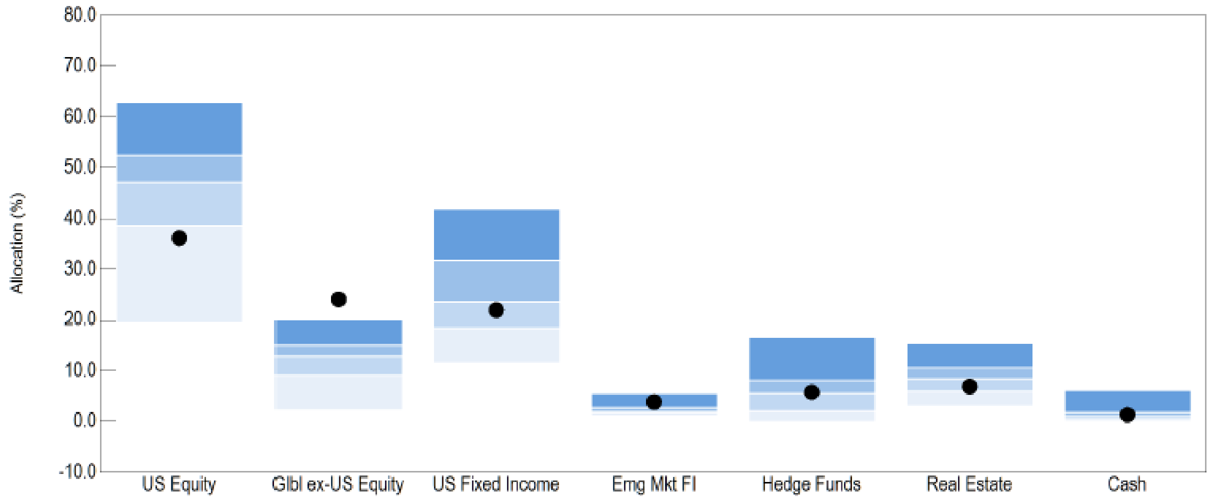
While the Board has delegated decision-making authority in certain areas such as manager selection and portfolio rebalancing, it has retained authority for strategic asset allocation with input from the OCIO Provider. We reviewed the process by which the Provider evaluates and recommends asset allocation adjustments and found it too be adequate and in line with industry best practices.

The Plan's current (6/30/23) strategic asset allocation targets[2] are shown below.

Asset Class	Policy Target
Domestic Equity	37%
International Equity	22%
Emerging Market Equity	3%
Hedge Funds	5%
Domestic Fixed Income	24%
Emerging Market Debt	4%
Core Real Estate	5%
Total Fund	**100%**

The following chart compares LCRA's current allocation in each asset class (represented by the dot) to the quartiled allocation range for each asset class in a peer group of U.S. public pension funds (represented by the floating boxes).

[1] Source: LCRA Retirement Plan Actuarial Valuation, January 1, 2023.
[2] Source: Performance Report, LCRA Retirement Plan, as of 6/30/2023.



Source: Verus, InvestMetrics

Relative to peers[3], the Plan's current allocation is tilted toward non-U.S. equity exposure and away from U.S. equity exposure. These tilts have been a headwind to peer-relative performance for some time, as U.S. equity has generally been the strongest performing asset class since the end of the Global Financial Crisis in early 2009, counter to the expectations established by the capital market assumptions of many financial organizations.

We conducted a mean-variance analysis on the Plan's current policy allocation, using our proprietary Capital Market Assumptions ("CMAs"). The table below shows a range of potential outcomes within which the Plan's 10- year prospective performance could reasonably be expected to fall.

[3] InvestMetrics Public Defined Benefit Plan Net Returns universe (233 portfolios)

	LCRA Policy	Verus 2023 Midyear CMA's (10 Yr) Return (geometric)	Return (arithmetic)	Standard Deviation	Sharpe Ratio (arithmetic)
US Large	30.0	*6.2*	*7.3*	*15.6*	*0.18*
US Small	7.0	*6.1*	*8.2*	*21.5*	*0.17*
Global Equity ex US	22.0	*9.0*	*10.7*	*19.9*	*0.37*
Emerging Markets	3.0	*7.3*	*10.1*	*25.2*	*0.22*
High Yield Corp. Credit	4.0	*6.0*	*6.6*	*11.2*	*0.19*
Emerging Market Debt (Hard)	2.0	*8.4*	*8.9*	*10.7*	*0.41*
Emerging Market Debt (Local)	2.0	*6.3*	*7.0*	*12.3*	*0.20*
Total Return Enhancement	***70***				
Core Real Estate	5.0	*6.5*	*7.2*	*12.6*	*0.21*
Directional Hedge	5.0	*7.4*	*8.4*	*14.6*	*0.35*
Total Alternatives	***10***				
Limited Duration Fixed Income	6.0	*3.6*	*3.7*	*3.7*	*-0.22*
Core Fixed Income	14.0	*3.9*	*4.0*	*4.6*	*-0.11*
Total Risk Management	***20***				
Cash	0.0	*4.5*	*4.5*	*1.2*	*-*
Total Allocation	**100**				
Mean Variance Analysis					
Forecast 10 Year Return	***6.6***				
Standard Deviation	12.7				
Return/Std. Deviation	*0.5*				
1st percentile ret. 1 year	*-19.0*				
Sharpe Ratio	0.22				

Based on this analysis, the Plan's expected average annualized return for the next 10 years is 6.6% with a 12.7% standard deviation and a Sharpe Ratio of 0.22.

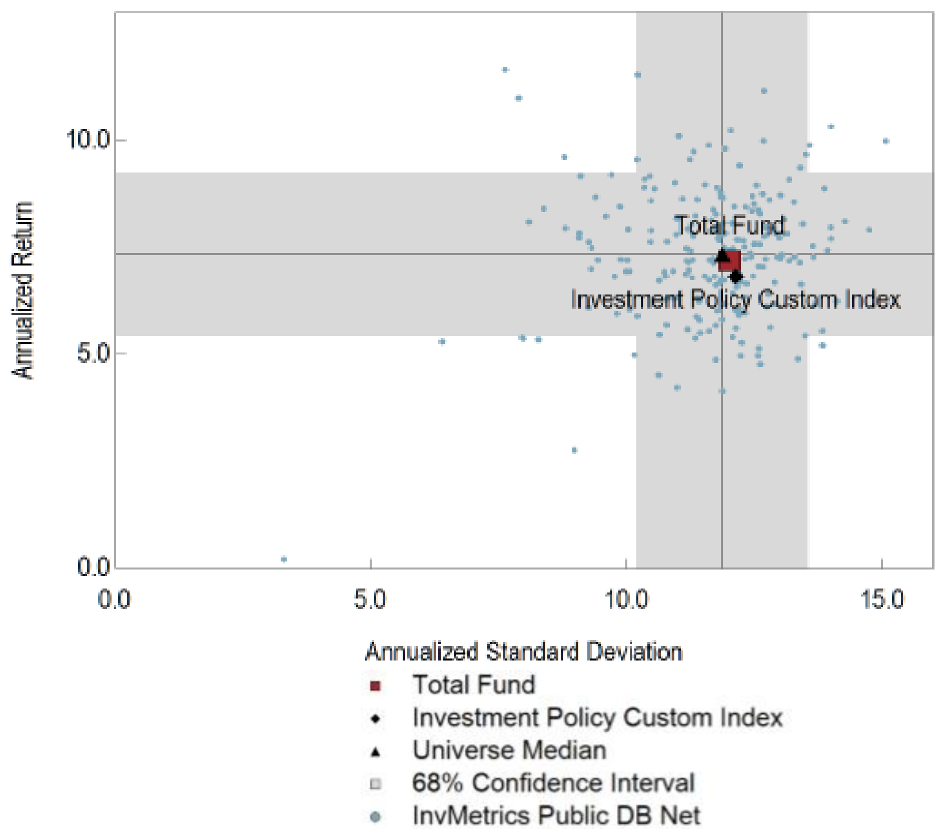
A mean-variance optimization modeling exercise provides highly precise analytical output that specifies an "optimal" asset mix for any given target rate of return or level of risk. However, it is broadly recognized that the quality of the output is only as good as the quality of the forecasted inputs. Therefore, MVO output should not be the only standard by which the reasonableness of a strategic asset allocation is measured. With that in mind, we further assessed the reasonableness of the Plan's asset allocation using historical net-of-fee performance relative to the total fund benchmark and to peers[4] for historical periods ending 6/30/23.

	YTD	1 Yr	3 Yr
Total Fund	8.4%	9.3%	7.2%
Policy Index	8.5%	9.7%	6.8%
Percentile Peer Ranking [5]	41	46	59

[4] InvestMetrics Public Defined Benefit Plan Net Returns universe (233 portfolios)
[5] 1 is best.

Since the Plan changed its governance structure in in early 2020, performance has been generally in line with its policy index and has exceeded the actuarial assumed rate of return. Performance has also been in line with the Plan's median peer, as can be observed in the table below.

Risk vs Return



Based on these analyses, we believe the Plan's asset allocation can be considered appropriate, given the Plan's risk and return objectives.

Portfolio Implementation

Active vs. Passive Management

The following table provides an accounting of the total portfolio broken down into active and passive positions as of 6/30/23.

Passive

Asset Class	Market Value	% of Total Exposure
Domestic Equity	$ 135,449,128	29.8%
Total Passive	**$ 135,449,128**	**29.8%**

Active

Asset Class	Market Value	% of Total Exposure
Domestic Equity	$ 28,995,751	6.4%
Non-US Developed Equity	$ 96,275,054	21.2%
Emerging Markets Equity	$ 13,243,684	2.9%
Domestic Fixed Income	$ 99,914,851	22.0%
Emerging Markets Debt	$ 17,447,132	3.8%
Real Estate	$ 31,319,891	6.9%
Other Alternatives	$ 26,051,471	5.7%
Total Active	**$ 313,247,834**	**68.9%**

Cash

Asset Class	Market Value	% of Total Exposure
Cash	$ 6,018,519	1.3%

Combined

	Market Value	% of Total Exposure
Total Fund	**$ 454,715,481**	**100.0%**

Conventional wisdom states that large cap domestic equity is an efficient asset class that should be largely invested passively, and other asset classes may be less efficient with active management having a better chance of generating excess returns. However, this view is not broadly supported by industry research, including the latest S&P Indices Versus Active (SPIVA) Scorecard Report[6], which showed active funds in domestic and international equity investment categories underperforming passive benchmarks 92.1% of the time and 93.5% of the time, respectively, over the 20 years ending 12/31/22. That said, the Plan has experienced success with its current suite of traditional active managers, as shown in the following table.

[6] SPIVA U.S. Scorecard Year-End 2022 (spglobal.com)

Asset Class	Manager Return	Benchmark Return	Relative Performance	Inception Date
Small/Mid Cap Equity	15.89%	15.20%	0.69%	Apr-20
Non-US Developed	10.37%	9.44%	0.93%	Apr-20
Emerging Markets Equity	11.33%	4.76%	6.57%	Apr-20
Core Fixed Income	-2.89%	-3.43%	0.54%	Apr-20
Limited Duration FI	3.05%	1.82%	1.23%	Apr-20
High Yield	4.40%	1.67%	2.73%	Apr-20
Emerging Markets Debt	-1.82%	-3.39%	1.57%	Apr-20

In light of the Plan's experience, which is counter to the highest probability outcome over the long term, we find the Plan's current active/passive structure to be reasonable, but we nevertheless continue to encourage consideration of an increased share of passive investments in the portfolio.

Manager Selection and Monitoring

The Plan has delegated the responsibility for investment manager selection and monitoring to its OCIO provider, SEI (the "Provider"). We reviewed the Provider's capabilities in this area through interviews and document review, and their selection and monitoring processes, as described below, are deemed adequate.

Manager Selection

The Provider's manager research is conducted in-house through two research teams, one for fixed income and equity and one for alternative investments. The Provider maintains a proprietary database containing internal research on more than 20,000 investment mandates. Proprietary research is augmented with data from third-party data providers, including Callan, eVestment, NCREIF, PerTrac and Preqin for screening and sourcing across all primary asset classes.

As part of their evaluation to determine a manager's ability to generate excess returns, the Provider conducts research that includes the following steps:

- A quantitative assessment of performance and risk,
- A review of the investment process, and
- A qualitative review of the organization.

Specifically as relates to selection of alternative investments, we reviewed the Providers' documented due diligence practices[7], and while we did not verify that stated policies and procedures were diligently followed, we found them to be comprehensive in their description. In addition, we observed meeting minutes from a Retirement Board meeting indicating that a review of the alternative investment

[7] SEI Alternative Investments – Private Manager Due Diligence Policies and Procedures

strategies recommended by the Provider took place and are satisfied that sufficient investigation and due diligence has occurred.

Manager Monitoring

The research process described above leads the Provider to develop a “manager thesis”, which sets performance expectations for when a manager will outperform and underperform. This in turn establishes a foundation for manager monitoring and also informs their sell discipline. The Provider monitors risk and performance and evaluates consistency with the objectives of their initial thesis.

The monitoring process includes the following periodic activities:

- Review of underlying portfolio holdings,
- Performance and risk attribution,
- Portfolio characteristics review,
- Decision and outlook review,
- Onsite visits, and
- Peer-relative reviews.

Leverage

The Plan uses no leverage at the total fund level or in the bulk of its investment strategies. Leverage may be used within the Plan’s Alternatives mandates, which make up 12.6% of the total investment portfolio (as of 6/30/23). These investments are held within a commingled fund or limited partnership structure, which limits the liability to the Plan to the assets invested in the funds.

Currency Hedging

The Plan does not utilize currency hedging strategies at the total fund level and leaves the hedging decision to the discretion of the managers investing in non-U.S. markets. Our expectation is most of the foreign currency exposure in the portfolio will remain unhedged, as is typical for non-U.S. investment strategies.

Liquidity

In order to assess liquidity sufficiency, we conducted an analysis of the Plan’s cash flow needs and the liquid financial assets that can be used to meet them. Through this analysis, we answer the question, “Will the plan be forced to sell illiquid assets to cover cash outflows in the next 5 years?”. We quantify this dynamic using a liquidity coverage ratio (LCR) defined as follows:

$$Liquidity\ Coverage\ Ratio\ (LCR) = \frac{\begin{matrix} Liquid\ Financial\ Assets\ (stressed\ market\ condition) \\ \sum(Distributions\ from\ Illiquid\ Assets) \\ \sum\left(\frac{Employer}{Employee}\ Contributions\right) \\ \sum(Investment\ Income) \end{matrix}}{\begin{matrix} \sum(Benefit\ Payments) \\ \sum(Capital\ Calls\ for\ Illiquid\ Assets) \\ \sum(Plan\ Expenses) \end{matrix}}$$

LCR Value	Implication
<1	The plan will need to sell illiquid assets to cover cash flows
1	The plan has sufficient liquidity to cover all cash flows
>1	The plan will not be required to sell illiquid assets to cover liquidity needs

The table below calculates the 5-year LCR under various deterministic market drawdown scenarios.

	Baseline	20% Drawdown	25% Drawdown	30% Drawdown	35% Drawdown	40% Drawdown
Liquid Financial Assets (End of year 5)	712,948,580	570,358,864	534,711,435	499,064,006	463,416,577	427,769,148
Contributions (Employee + Employer)	144,888,680	144,888,680	144,888,680	144,888,680	144,888,680	144,888,680
Benefit Payments	241,569,355	241,569,355	241,569,355	241,569,355	241,569,355	241,569,355
Liquidity Coverage Ratio	**3.55**	**2.96**	**2.81**	**2.67**	**2.52**	**2.37**

We also conducted two market-based simulations. The first is a 1,000-trial stochastic simulation, based on our proprietary capital market assumptions forecast (the same CMAs used in the asset allocation review). The second is a 90-trial simulation, based on historic US market return data since 1928.

The output of this analysis is shown below in the form of two “box-and-whisker” charts. The first chart shows the expected percentage of the portfolio required to meet annual cash flow needs. The second chart shows the 5-year Liquidity Coverage Ratio.

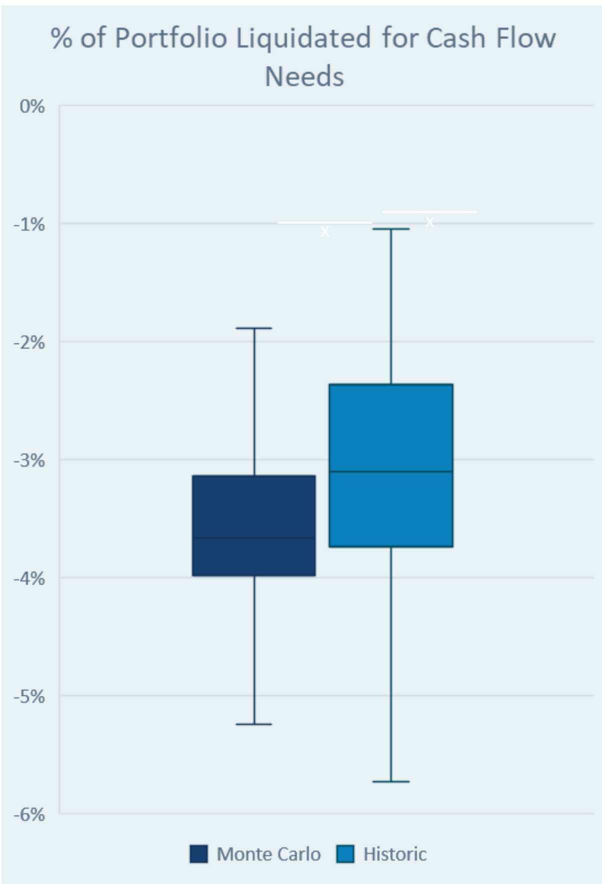
The following instructions will help in interpreting these charts:

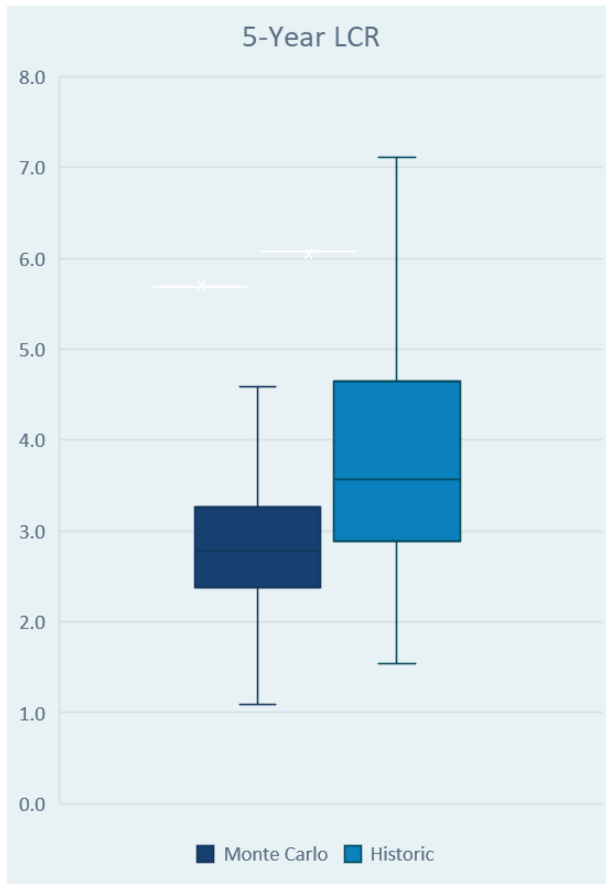
- The top line in each chart represents the 100th percentile (all observations excluding outliers exist at or below this line)
- The top bar of the box in each chart represents the 75th percentile
- The middle line within each box represents the 50th percentile
- The bottom bar of each box represents the 25th percentile

- The bottom line in each chart represents the 0th percentile (all observations excluding outliers exist at or above this line)

Key observations include the following:

- On average, the Plan will need to liquidate roughly 3.5% of its assets each year in order to meet cashflow needs, and it is highly unlikely the Plan will need to liquidate less than 2% of assets or more than 5% of assets in any single year
- The 5-year LCR averages around 2.8 to 3.5, depending on the returns model used
- The absolute minimum under any of our return models is approximately 1.0.





In aggregate our analysis indicates that even under extreme market conditions, the Plan maintains sufficient liquidity to cover net cash outflows.

Benchmarking

Effective benchmarks are ones that assist an investor in determining whether or not an investment strategy is meeting performance expectations over time. Characteristics of an ideal benchmark can be easily recalled by using the SAMURAI mnemonic:

- (S)pecified in advance
- (A)ppropriate
- (M)easurable
- (U)nambiguous
- (R)eflective
- (A)ccountable
- (I)nvestable

Most traditional public markets investment strategies can typically find benchmarks that meet the SAMURAI criteria, but it becomes more difficult with alternative investment strategies. We found that in most cases the Plan utilizes a set of benchmarks that reflects the investment strategies deployed across the portfolio and follows the SAMURAI criteria as closely as possible.

Individual Managers

The tables below list the benchmark selected for each investment fund.

Traditional

Strategy	Benchmark
SSgA S&P 500 Index Fund	S&P 500 Index
Small/Mid Cap Equity Fund	Russell 2500 Index
World Equity Ex-US Fund	MSCI All Country World ex US Index (net)
Emerging Markets Equity Fund	MSCI Emerging + Frontier Mkts Index (net)
Core Fixed Income Fund	Bloomberg US Aggregate Bond Index
Limited Duration Fund	ICE BofA ML 1-3 Year Treasury Index
High Yield Bond Fund	BofA ML US High Yield Constrained Index
Emerging Markets Debt Fund	50/50 JPMorgan EMBI Global Diversified/JP Morgan GBI EM Global Diversified Indexes
Cash	None cited

Alternative

Strategy	Benchmark
SEI Special Situations Collective Fund	ICE BofA ML 3-mth US TBill Idx 1m Lag Qtrly
SEI Core Property Fund CIT	NCREIF Property Index

We find the benchmarks used to be reasonable and appropriate for measuring performance.

Recommendations

- It was not clear whether performance is measured on a gross-of-fee or net-of-fee basis. We recommend including net-of-fee performance to ensure managers are evaluated on their excess returns over and above the fees paid to achieve them.
- We recommend comparing manager returns to a universe of similar managers to ensure the managers selected are not only adding value relative to a passive benchmark, but they are also outperforming other managers who also may be considered for their respective mandates.
- There are no asset class composite benchmarks included in performance reports. We recommend composite benchmarks made up of the underlying benchmark returns weighted by policy target allocations for each asset class.

Fees and Trading Costs

Fees

To assess the Plans' management fee structure, we compared the Plan's actual fee to the median fee in the eVestment manager database for each representative asset class, using the Plan's assets under management. As can be seen in the table below, the Plan compares favorably to the universe median in all categories evaluated.

Asset Class	(A)ctive (P)assive	$ Assets 6/30/23	Actual Fee[1] (bps)	Universe Median[3] (bps)
Domestic Equity				
Large Cap Core	P	$135,449,128	1	4
Small/Mid Cap	A	$28,995,751	39	78
Non-US Equity				
ACWI ex-US	A	$96,275,054	25	70
Emerging Market	A	$13,243,684	54	85
Alternatives[2]				
Core Real Estate	A	$31,319,891	125	N/A
Other Alternatives	A	$26,051,471	65	N/A
Fixed Income				
Core	A	$58,526,088	10	26
Limited Duration	A	$24,516,962	9	28
High Yield	A	$16,871,800	26	50
Emerging Market Debt	A	$17,447,132	37	67

[1] SEI Sub-Advisor cost which is weighted fee paid to each sub-advisor
[2] OCIO fee included
[3] eVestment using LCRA balances

Benchmarking data for the Plan's Real Estate and Other Alternatives managers was not available in the eVestment database. However, based on our experience with these asset classes, we believe the fees the Plan is paying is within a reasonable range.

Trading Costs

We did not evaluate trading costs as part of our review primarily because a meaningful and accurate trading cost analysis requires highly specialized and technical analytical tools and capabilities, which we do not possess, and a level of effort we defined as outside the scope of this project.

Appendix
Required Disclosures

The following disclosures are submitted in accordance with the Pension Review Board's Guidance for Investment Practices and Performance Evaluations (adopted October 17, 2019; Updated October 6, 2022).

1. Summary outlining the qualifications of the firm in evaluating institutional investment practices and performance

Verus was established in 1986 to provide a full range of investment consulting services to institutional investors (public funds, corporate DB and DC plans, endowments & foundations, Taft-Hartley trusts, private wealth trusts, and sovereign wealth trusts). Consulting is our only business, which we provide on a non-discretionary basis in the role of investment consultant and on a discretionary basis in the role of OCIO. Our business of providing investment advisory services to sophisticated institutional clients arms us with the experience, knowledge, and capabilities required to effectively review investment practices and investment performance, opine on their reasonableness and efficacy, and identify potential opportunities for improvement.

Verus has conducted five Texas IPPE reviews, along with several due diligence reviews for various state and local clients.

2. Statement that the firm meets the experience requirements

Verus meets the experience requirements stated in Texas Government Code Section 802.109 Investment Practices and Performance Reports as follows:

"…an independent firm with substantial experience in evaluating institutional investment practices and performance to evaluate the appropriateness, adequacy, and effectiveness of the retirement system's investment practices and performance and to make recommendations for improving the retirement system's investment policies, procedures, and practices."

3. Statement indicating the nature of any existing relationship between the firm and the system being evaluated

Verus conducted an IPPE for the Lower Colorado River Authority Retirement Plan and Trust in 2020.

4. Statement acknowledging that the firm, or its related entities, is not involved in directly or indirectly managing investments of the system

Verus is not involved in any way with managing the investments of the Lower Colorado River Authority Retirement Plan and Trust.

5. Statement identifying any potential conflict of interest or any appearance of a conflict of interest that could impact the analysis between the independent firm and the system or any current/former member of the system's governing body

Verus is not aware of any actual or potential conflict of interest or the appearance of any actual or potential conflict of interest with the Lower Colorado River Authority Retirement Plan and Trust or any current or former member of the Lower Colorado River Authority Retirement Plan and Trust's governing body.

6. A list of the types of remuneration received by the firm from sources other than the retirement system for services provided to the system

Verus receives no remuneration from sources other than the Lower Colorado River Authority Retirement Plan and Trust for services provided to the Plan.

7. An explanation of the firm's determination regarding whether to include a recommendation for each of the following evaluated matters:
    a. an analysis of any investment policy or strategic investment plan adopted by the retirement system and the retirement system's compliance with that policy or plan;

See Recommendations on p. 6 of this report.

    b. a detailed review of the retirement system's investment asset allocation, including:
        i. the process for determining target allocations;

Sufficient. No recommendations.

        ii. the expected risk and expected rate of return, categorized by asset class;

See Table on p. 9 of this report.

        iii. the appropriateness of selection and valuation methodologies of alternative and illiquid assets; and

See Manager Selection section on p. 12 of this report. Selection of alternative and illiquid assets is deemed sufficient. No recommendations.

The Plan holds two alternative assets, The SEI Core Property Collective Investment Trust and the SEI Special Situations Collective Investment Trust. Each of these funds has been audited by Deloitte & Touche LLP, which included a review of valuation methodologies. We believe this level of external oversight ensures appropriate valuation methodologies are applied to the underlying fund assets.

iv. future cash flow and liquidity needs;

See Liquidity Section on p. 13-15 of this report.

c. a review of the appropriateness of investment fees and commissions paid by the retirement system;

Appropriate. No recommendations.

d. a review of the retirement system's governance processes related to investment activities, including investment decision-making processes, delegation of investment authority, and board investment expertise and education; and

Based on a document review and interviews with the Board, Staff, and OCIO Provider of the Lower Colorado River Authority Retirement Plan and Trust, we found its governance structure to be well-defined and well-implemented, and we identified no significant deficiencies.

e. a review of the retirement system's investment manager selection and monitoring process.

Sufficient. No recommendations.

Appendix

LCRA Retirement Board of Directors (RBOT) Response to Verus Recommendations

1. An analysis of any investment policy or strategic investment plan adopted by the retirement system and the retirement system's compliance with that policy or plan.

   Recommendation: We were unable to find clear evidence that the Board of Trustees reviewed governing documents controlling the investment products used in the investment program. In the future, such evidence could include emails to the Trustees containing the governing documents and meeting minutes indicating that discussions of the governing documents have taken place.

   Response: The RBOT will formalize the process of reviewing investment product governing documents on an annual basis including documentation of such review.

2. A detailed review of the retirement system's investment asset allocation, including the process for determining target allocations.

   No Recommendation

3. A detailed review of the retirement system's investment asset allocation, including the expected risk and expected rate of return, categorized by asset class.

   Recommendation: The report included a mean-variance optimization model as a means of forecasting expected rates of return.

   Response: The RBOT is satisfied with the current modeling used by both SEI and Rudd & Wisdom.

4. A detailed review of the retirement system's investment asset allocation, including the appropriateness of selection and valuation methodologies of alternative and illiquid assets.

   No Recommendation

5. A detailed review of the retirement system's investment asset allocation, including future cash flow and liquidity needs.

   Recommendation: The report includes an example of a liquidity coverage ratio calculation.

   Response: The RBOT is satisfied with the projections provided by the actuary, Rudd & Wisdom.

6. A review of the appropriateness of investment fees and commissions paid by the retirement system.

   No Recommendation

7. A review of the retirement system's investment manager selection and monitoring process.

   No Recommendation