Intensive Actuarial Review:

Midland Firemen's Relief and Retirement Fund

November 2021

Texas Pension Review Board

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Executive Summary

Introduction

This intensive actuarial review of Midland Firefighters' Relief and Retirement Fund ("Midland Fire") is intended to assist Midland Fire's board of trustees and the City of Midland with assessing the fund's ability to meet its long-term pension obligations.

The Pension Review Board (PRB) encourages the fund and city to review the findings and conclusions of this report and jointly adopt a forward-looking plan to address these issues. The PRB can provide technical assistance in formulating the plan.

Overview

Midland Fire is currently projected to run out of assets in 22 years. Between 2000 and 2019, the fund went from a stable funded ratio of 93.7 percent to 51.1 percent. Investment underperformance was the primary contributor to an increase in unfunded actuarially accrued liability (UAAL) since investments have underperformed their assumed rate of return of 7.5 percent by more than 2 percent, only achieving a 10-year compounded return of 5.1 percent over the last decade, despite a strong bull market during that same period. Inadequate contributions and assumption changes also exacerbated the UAAL increase since the reliance on investment returns to pay benefits increases as the funded ratio declines, which compounds the negative effects of underperforming assets.

Additionally, several aspects of Midland Fire's investment program and monitoring practices are concerning. The fund's board does not monitor the composite portfolio or have a formal policy to evaluate the program's performance and expenses, raising transparency and accountability concerns. The roles and responsibilities governing Midland Fire's investment program are vaguely defined. The fund has been knowingly submitting incomplete and inaccurate statutorily required investment return reports for years.

Finally, Midland Fire has potentially over-allocated to riskier and higher-fee real estate and alternative investments for a fund its size, which has contributed to the fund having the highest total fees in the state for 2019. These risky assets may be difficult or impossible to sell if the fund needs liquidity to support benefit payments, and they would most likely be sold at a steep loss especially during a market crisis, further lowering the funded ratio and fund stability.

Conclusion

Midland Fire and the city should hire a third-party to conduct a forensic audit, which should include a reconstruction of investment performance, fees, compliance review, and risk assessment to provide a solid foundation to create a funding soundness restoration plan (FSRP) and monitor progress. They should also conduct a governance audit to review best practices and increase transparency of board operations.

The fund and city should work together to balance increased contributions and benefit reductions to improve funding. For the longer term, a strong funding policy and FSRP should be adopted to restore and preserve fiscal health. The fund should also monitor investment managers' performance against benchmarks; adopt an asset allocation plan; and regularly review the fund's professional advisors.

Background

The Pension Review Board (PRB) conducts intensive studies of potential or existing problems that threaten the actuarial soundness of or inhibit an equitable distribution of benefits in one or more public retirement systems.[1] The PRB selected Midland Firemen's Relief and Retirement Fund ("Midland Fire") for review in April 2021 based on several criteria including the metrics shown below calculated as of December 31, 2019; the fact the fund was between eight and 20 months past due on several required reports; and the request of the board actuary. The PRB utilizes several key metrics, below and attached in the appendix, to determine and prioritize retirement systems for intensive actuarial review.

Amort. Period (Years)	Funded Ratio	UAAL as % of Payroll	Assumed Rate of Return	Payroll Growth Rate	Actual Cont. as % of ADC	Non-Investment Cash Flow as % of FNP	DROP as % of FNP
Infinite	51.10%	432.24%	7.50%	3.25%	69.68%	-5.33%	0.60%

Several key metrics showed concerning trends between 2000 and the end of 2019 when the fund was selected for review:

- The funded ratio decreased from 93.7 percent in 2000 to 51.1 percent at the end of 2019.
- The unfunded actuarial accrued liability (UAAL) increased from $3 million in 2000 to $87 million at the end of 2019.
- The UAAL as a percent of payroll is the ninth highest in the state.
- Its non-investment cashflow as a percent of (Fiduciary Net Position) FNP, which shows the strain on system assets to perform after contributions, expenses and benefits are netted out, was in the lowest quartile in the state.
- The fund reported a total expense ratio of 1.89 percent in 2019, the highest of any plan in the state.

Plan Profile (2019 AV)

Actuarial Accrued Liability: $177,602,061

Market Value of Assets: $84,848,966

Normal Cost: 26.30% of payroll

Contributions: 14.20% employee
22.20% employer

Membership: 209 active
173 annuitants

Social Security Participation: No

Additionally, the fund was significantly past due on several required reports and evaluations:

- 2019 Investment Returns and Assumptions Report (form PRB-1000): due July 31, 2020[2]
- Investment Practices and Performance Evaluation (IPPE): due June 1, 2020[3]
- Written funding policy: due February 1, 2020
- Funding Soundness Restoration Plan (FSRP) to be developed jointly with the city: due August 2019

[1] All citations to Texas statutes are as they appear on http://www.statutes.legis.texas.gov. Section 802.202(2), Texas Government Code.
[2] The 2019 Investment Returns and Assumptions Report has since been submitted to the PRB. However, it was incomplete, so the PRB staff had to calculate rolling returns.
[3] The IPPE has since been submitted to the PRB.

Key Findings

Midland Fire faces many serious issues ranging from limited to no investment governance; inconsistent and insufficient investment performance; and large, unexpected increases in benefit payments. <u>All of these factors increase the risk the fund will run out of money in as little as 10 to 12 years.</u>

The following information highlights the most pressing issues and critical findings from the PRB's review of Midland Fire's plan reports, board meetings, meetings with plan trustees and staff, and other available information.

Midland Fire lacks fundamental governance practices to administer its investment program, including portfolio monitoring and defining roles and responsibilities.

Midland Fire has limited investment monitoring practices and does not review composite fund investment performance, which is a core investing practice. Section 802.206, Texas Government Code outlines the fiduciary duty that a public retirement system's governing body shall monitor investment managers at frequent intervals. Midland Fire's current practice is to review individual investments only, and to do so only on occasion. Additionally, Midland Fire does not have monthly, quarterly, or annual processes to formally review composite fund performance, expenses, or liquidity. The fund's 2020 Investment Practices and Performance Evaluation (IPPE) also states "the plan does not have any formal policy for evaluating fund performance."[4] **It is deeply concerning that the governing body of an $85 million-dollar pension fund does not conduct structured monitoring or review of its assets.**

Midland Fire's board delegates the duty to carry out the investment program to its investment committee, but it does not identify clear roles and responsibilities. The committee makes decisions regarding the fund's complex investment portfolio that includes large allocations to real estate and alternative investments and then presents those decisions to the full board for approval. Given the fund's investments support more than $170 million in liabilities, the board and its committee assume a great amount of risk by managing them without developing even basic investment governance policies to guide their decision-making. It also has not sought assistance of professional advisors, such as an investment consultant, to assist in discharging its responsibilities to the fund.

Additionally, the fund lacks succession planning for key decision-making positions on the investment committee. This could raise concerns regarding the ability of the board to provide continuity of the investment program in the event of a change in board members. The lack of policies for Midland Fire is exacerbated by the fact that the institutional knowledge regarding the fund's investment program is concentrated within the investment committee members, some of whom have been serving on the board for decades. A detailed, written policy will help ensure both current and future boards and committees act consistently.

A well-constructed investment policy statement (IPS) and clearly established procedures form the foundation of any responsible investment management program. The Chartered Financial Analyst Institute's (CFAI) *Primer for Investment Trustees* explains the importance of an investment policy: "If the

[4] Midland Firemen's Relief and Retirement Fund, *Midland Firemen's Relief & Retirement Fund: SB 322 Review and Analysis,* accessed through PRB records. This document was submitted to the PRB as Midland Fire's 2020 IPPE.

trustees can't develop and convey a clear sense of what the Fund is attempting to achieve and how they expect staff members or outside advisers to go about reaching those objectives, then the investment program will be directionless and the trustees and staff will be prone to pursuing ineffective approaches that lead to unsatisfactory results."[5] Clearly documenting policies and procedures can also help mitigate transparency issues.

Midland Fire's IPS does not meet most of the basic industry standards set by the Government Finance Officers Association (GFOA) and the CFAI. This is especially concerning, given the fact that the Texas Local Firefighters Retirement Act (TLFFRA) governing statute requires a board to give special consideration to GFOA best practices when developing its investment policy.[6] Midland Fire's one-page IPS is not sufficient to regulate and monitor the complex investment program the board is managing. Midland Fire is currently lacking several long-term governing policies compared to the preferred investment practices from GFOA and echoed by the CFAI.[7]

Scope and investment objectives: There are no tailored objectives articulating the purpose or investment goals of the fund, such as meeting or exceeding a certain benchmark.

Roles and responsibilities: The IPS does not identify the roles of all persons involved in the investment program and instead just references the TLFFRA statute.

Performance measurement (benchmarking) and reporting: The IPS does not define these four key practices from the GFOA:

1. The frequency of reporting and monitoring
2. The way external and internal parties report investment results
3. The evaluation process, with clear definitions of strategies
4. The performance benchmarks for permissible asset classes, expectations, and criteria for investment manager performance measurement

Statement on managing risks of individual investments: The fund's IPS provides some explanation by describing the asset allocation policy ranges and their variance limit; however, it lacks definitions and management details.

Liquidity of investments: No discussion regarding investment liquidity or its importance.

Guidelines for other investment-related service providers: No discussion of how other investment-related service providers, such as investment managers, are evaluated.

Investment management guidelines: There is no section defining the selection criteria or process for managers or guidelines on how to implement a manager watch list or termination.

Cost management: No discussion on how to monitor or manage costs including fee transparency. Midland fire was the costliest compared to peers and its cost has doubled over the last decade.

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[5] Jeffery V. Bailey and Thomas M. Richards, *A Primer for Investment Trustees: Understanding Investment Committee Responsibilities,* Second Edition, CFA Institute Research Foundation, 2017, https://www.cfainstitute.org/-/media/documents/book/rf-publication/2017/rf-v2017-n3-1.ashx.

[6] Article 6243e Section 27, Vernon's Texas Civil Statutes.

[7] Government Finance Officers Association, "Best Practices: Investment Policy," accessed Oct. 2021, https://www.gfoa.org/materials/investment-policy; CFA Institute, *Elements of an Investment Policy Statement for Institutional Investors,* accessed Oct. 2021, https://www.cfainstitute.org/-/media/documents/article/position-paper/investment-policy-statement-institutional-investors.ashx

Finally, as fiduciaries, there is a basic expectation for pension boards to be responsible stewards of good governance. Unfortunately, Midland Fire is behind on complying with numerous statutory requirements, including the basic trustee training requirement mandated by the Texas legislature. According to training reports submitted by the fund, Midland Fire's board is only 75 percent compliant with the PRB's Minimum Educational Training program. The program requires board members to take seven hours of foundational pension education the first year, and then four hours of continuing education every two years. This training is available for free on the PRB website. Failure to complete this basic education raises concerns regarding a trustee's clarity on general board responsibilities.

Transparency and accuracy concerns with Midland Fire's investment program limit members' and stakeholders' abilities to evaluate their benefit security.

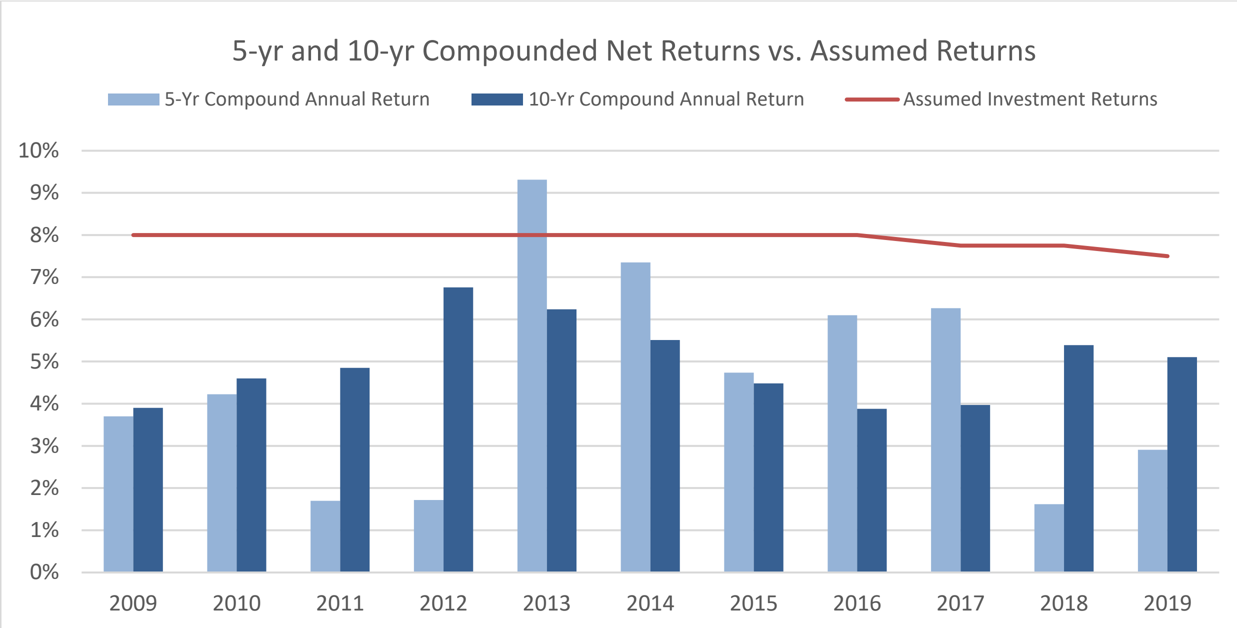
Midland Fire has recently revealed that it has been knowingly submitting incomplete and inaccurate statutorily required investment return reports for years. The fund's disclosure raises concerns regarding the reliability of any calculation or determination of investment returns and the overall health of the fund. It further points to issues concerning the fund's investment program management transparency, and accountability towards fund members, taxpayers, and other stakeholders.

Additionally it became clear that common reports or studies did not exist or were not readily available since the fund could not produce documentation regarding board due diligence to make investment decisions, investment performance reviews, actuarial studies, and other information. As a public pension fund subject to information requests, these types of documents are subject to public disclosure. Without transparent and accurate reports, outside parties, including plan members, are not able to properly determine the stability of a fund. The lack of transparency and accountability is a significant concern for Midland Fire.

Over the last decade the fund's investments have underperformed their assumed rate of return by more than two percent.

As previously mentioned, the fund has been submitting inaccurate statutorily required investment returns and assumptions reports and has not yet submitted its 2020 report. In addition to inaccuracy of historical data, the lack of compliance with this requirement further limits the information available to the fund members, PRB, and other stakeholders to evaluate the investment performance of the plan.

Based on the information reported to the PRB, over the 21 years ending December 31, 2019, Midland Fire has never achieved a 10-year compound return that meets or exceeds its assumed return and has only once exceeded its assumed rate over a five-year period. This results in an average 10-year annual return of just 5.1 percent, more than two percent less than the current assumed rate of return of 7.5 percent. When pension funds consistently overestimate their assumptions, they underestimate the funding issues they are facing. Further, if a plan does not achieve its assumed rate over the long term, it may indicate financial instability and could potentially result in unexpected contribution increases or benefit reductions in the future.

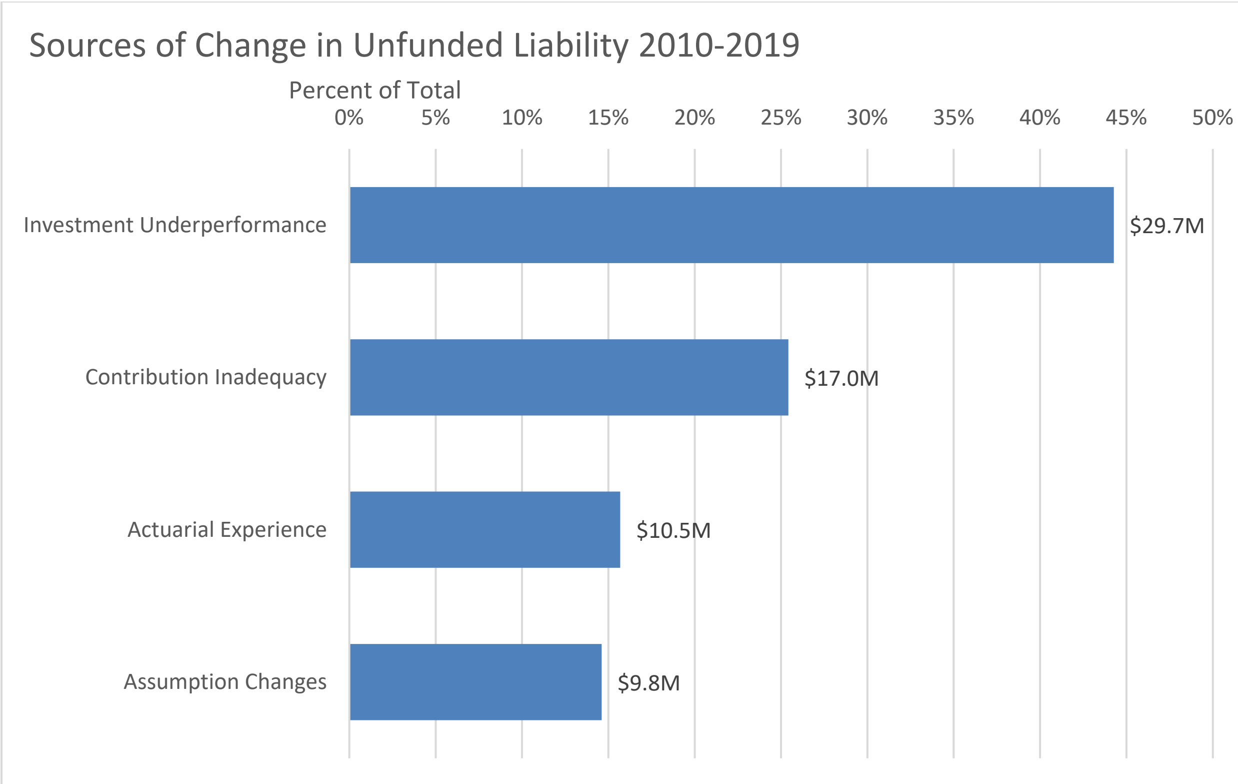


While the fund has rarely met its return assumption, it has also severely underperformed a simple passive index fund. Additionally, the index fund is close to no cost (0.07 percent expense ratio) while Midland Fire's investment only expense ratio was 1.43 percent in 2019.

Compounded Returns Comparison (as of 12/31/2019)	1-Year	3-Year	5-Year	10-Year
Midland Fire	9.86%	4.06%	2.91%	5.10%
Vanguard Balanced Index (60/40) *VBIAX*	21.79%	10.45%	8.05%	9.69%
Performance Difference	-11.93%	-6.39%	-5.15%	-4.58%

Midland Fire's IPPE also concluded that "active management has contributed value to the fund."[8] However, no explanation was provided, and the fund's average annual return is consistently below the assumed return. Past audited financial statements and investment committee minutes are vague and offer little understanding as to why the fund is underperforming and what actions are being taken to remedy the situation. As shown in *Sources of Change in Unfunded Liability 2010-2019*, investment underperformance is the leading driver in the increasing unfunded actuarially accrued liability from 2010 to 2019, representing 45 percent of the change.

[8] Midland Fire, *SB 322 Review and Analysis.*



The CFAI describes the importance of regular, thorough evaluation of a fund's performance relative to its investment objectives. Regular evaluation provides a board with a governance control mechanism through evidence reaffirming a successful investment strategy and feedback on the investment process. Midland Fire's board relies on its actuary to calculate an annual investment return to be included in the annual financial report, but the board does not consider portfolio-wide returns when evaluating the investment program. The board faces a difficult environment to effectively manage assets due to a combination of factors such as inaccurate reporting, lack of performance review on a composite basis, lack of clear objectives, and the utilization of a return calculation whose primary purpose is unrelated to portfolio monitoring. It should be noted that the historical long-term data available from the fund is either insufficient or inaccurate to perform a more detailed analysis of the causes for this underperformance.

Among the highest in the state, Midland Fire's investment expenses have grown considerably since 2013, and the fund has no fee monitoring process.

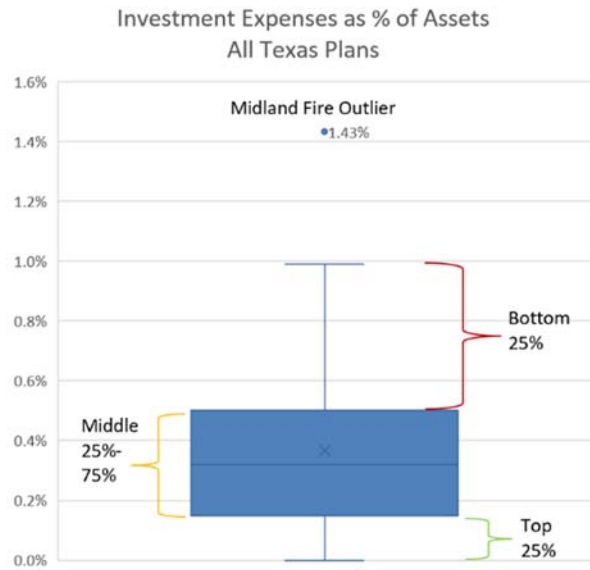
"You will exercise little influence over the outcome of most aspects of the Fund's investment program. Markets move in ways that are inherently unpredictable. **A key element of the Fund's investment performance over which you actually do exert considerable control, however, is the issue of fees and expenses.** As an investment trustee, you have the responsibility for seeing that the Fund's investments are managed in the most cost-effective manner possible."

CFAI's *Primer for Investment Trustees*

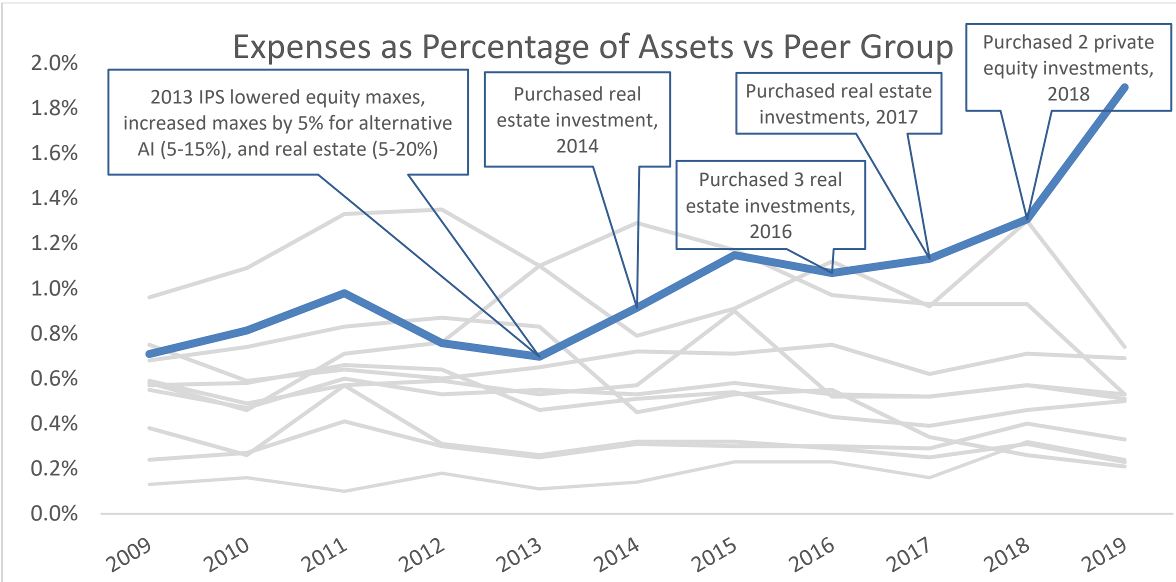
There are many things a board cannot control when managing an investment program, which makes it vitally important to act on factors it can control, especially investment expenses and asset allocation. Trustees are responsible for managing investments in a cost-effective way to provide some balance to the inherent unpredictability of markets.[9]

Based on data reported to the PRB in 2019, Midland Fire has the highest total expenses as a percentage of assets of all Texas plans, including plans with significantly more sophisticated investment programs. In fact, Midland Fire is the only plan outside the 75th percentile. In addition, the fund's investment expenses have increased steadily for the past decade and have more than doubled since 2009.

The chart *Expenses as a Percentage of Assets vs Peer Group* shows the significant growth of Midland Fire's expenses since 2013, along with board investment decisions, compared to peer systems. The percentage of expenses has grown over the last seven years as the board began to allocate more heavily to real estate and alternative investments. The rise in expenses appear to be a result of the 2013 IPS changes that lowered equity allocations and increased the maximum allocations to real estate and alternatives.



[9] Bailey and Richards, *A Primer for Investment Trustees, 78-9.*



Although expense review should be an important step in managing investments, Midland Fire does not assess its full fund's investment fees. Midland Fire's fee philosophy is contrary to leading industry standards: in conversations with the fund and staff, the PRB learned that fees are not a consideration in selecting investments for the fund, and that they are only compared to fees for similar investments. Only considering investments in respect to similar ones would imply that if the fund's asset allocation was largely focused on typically high-fee asset classes such as real estate and alternative investments, having high total fund fees would be acceptable.

While high investment fees do not imply poor investment decisions, high fees may act as a constant leak on assets, making it harder for the fund to achieve its stated investment return goals. It is imperative to consider fees when selecting investments to ensure the additional cost of higher fee investments provides sufficient value in performance. Given Midland Fire's poor investment returns, it is unlikely that the fees are justified through higher returns.

Furthermore, it is the fiduciary's responsibility to be prudent stewards of every dollar spent. However, the PRB could not identify a formal process for fee monitoring. In its 2020 Investment Performance Report, the PRB identified **the importance of fee review and documentation** as a central theme within the approximately fifty IPPEs.[10] Midland Fire's IPPE noted, "The Administrator for the system is responsible for monitoring and reporting fees to the board."[11] However, it is not clear how this is accomplished. Its IPPE also indicated that the investment fees were "in-line with industry averages," but no data was provided to show how the system ranked compared to peers or industry averages. A comparison of Midland Fire's total fees to Texas peers or to the 2019 National Conference on Public Employee

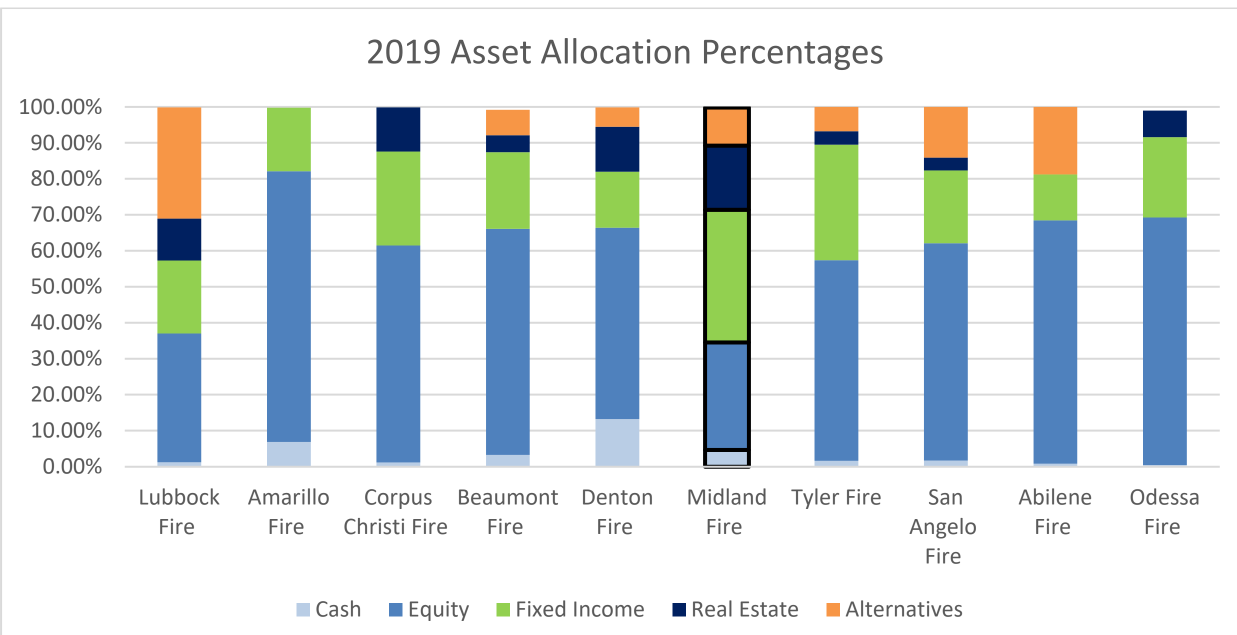
[10] Texas Pension Review Board, *Investment Performance Report: November 2020,* accessed Oct. 2021, https://www.prb.texas.gov/txpen/wp-content/uploads/2020/11/Investment-Practices-Report.pdf.

[11] Midland Fire, *SB 322 Review and Analysis.*

Retirement Systems' *Public Retirement Systems Study* shows an average total expense of 0.63 percent for non-social security eligible funds to Midland Fire's 1.89 percent.[12]

Midland Fire's asset allocation appears to be a poor fit for their size and liability constraint.

A pension fund's asset allocation is highly dependent on the size of its assets and liabilities. As assets grow, funds gain access to private and more complex investments. To invest in these products, investors must establish that they are accredited investors. Accredited investors must meet certain criteria to participate, such as having investments exceeding $5 million or expert qualifications, but they are also assuming more responsibility to perform investment due diligence. Since these investments are restricted, investors are expected to have sufficient investment experience, tools, resources, and knowledge to analyze the investments and risks. With such high investment expenses and underperforming investments, Midland Fire has potentially extended too far into real estate and alternative investments for a fund its size. Additionally, Midland Fire's asset allocation is complex and may not make sense for a smaller pension fund that does not have full-time staff or, at a minimum, an investment consultant to assist with selection and monitoring.



[12] National Conference on Public Employee Retirement Systems and Cobalt Community Research, *2019 NCPERS Public Retirement Systems Study,* accessed oct. 2021, https://www.ncpers.org/files/2019%20NCPERS%20Public%20Retirement%20Systems%20Study%20Report%20Final.pdf

Case Study: TLFFRA Peer System

In 2019, the peer system identified a desire to improve its asset allocation to reduce expenses as a percentage of assets from one percent, to be more in-line with the industry average of 0.6 percent (according to the 2018 NCPERS survey). Utilizing its investment consultant, the changes consisted of removing most alternative investments and replacing real estate with lower cost passive index funds. This decision was based on an analysis that showed the fund's biggest sources of fees were in private real estate, hedge funds, and international equity.

In its 2020 Investment Performance Report, the PRB stated that adjusting from complex real estate and alternatives to passive index investments could provide an additional benefit of reducing the work required to monitor and research investments for a smaller fund with limited resources.[13]

Midland Fire's target asset allocation includes up to 25 percent in international equities, 30 percent in real estate and 15 percent in alternative investments. Additionally, the fund appears to be taking a large amount of risk even in traditional asset classes. For example, the fund's traditional investments such as fixed income are invested in more risk-seeking selections such as high-yield and international bonds. Such large allocations to real estate and alternative investments increases the overall investment complexity, risk management needs, and evaluation requirements for assessing cost-effectiveness compared to peers with simpler asset allocations.

The large allocations to real estate and alternative investments also pose a potential liquidity risk, since these investments are generally intended to be held between five to 10 years. According to Midland Fire's 2019 annual financial report, the fund holds approximately 20 to 30 percent of its total portfolio in illiquid assets.[14,15] Further, Midland Fire's liabilities of more than $170 million—about two times its assets—and a negative non-investment cash flow of 5.33 percent of assets in 2019 increase the risk of a scenario that could force undesirable liquidations of investments to pay current benefits or expenses. The fund faced this scenario at the start of the pandemic in 2020 when the financial markets were volatile due to economic and public health uncertainties. Fortunately, that crisis was short-term partly due to assistance from the U.S. government and the Federal Reserve Bank, but such drastic interventions may not be available in the future.

Case Study: Harvard Endowment

Harvard's endowment fund provides an example of the risk with large allocations to illiquid investments. In 2008, the fund allocated 55 percent to hedge funds, private equity, and private real assets such as real estate. Only 30 percent was in more liquid assets such as developed equities and fixed income. The remainder was in emerging-market equities and high-yield bonds that during the great financial crisis would have required a discount to liquidate. The endowment was faced with a tough decision on how to meet its obligations but was able to resolve the issue.

[13] PRB, *Investment Performance Report*.
[14] Midland Firemen's Relief and Retirement Fund, *Financial Report: December 31, 2019,* accessed through PRB records.
[15] Generally, illiquid assets are assets valued at Level III and potential redemption periods of 30 days or longer.

Midland Fire has claimed its program follows an endowment model and its asset allocation and selection of investments are very similar to Harvard's endowment fund. Midland Fire could face a similar situation as Harvard based on its asset allocation, but the fund does not have the same level of financial expertise to help navigate problems. While large financial shocks, such as the great financial crisis, are uncommon, they do happen, and only one is enough to devastate an unprepared pension fund.

In addition, the fund does not perform stress testing, which could provide significant benefits considering the likelihood of funding deterioration and large, unexpected increases in distributions. Midland Fire has indicated its investment committee has performed asset-liability studies and considers liquidity when making investment decisions; however, the PRB has been unable to obtain documentation of this analysis. An asset allocation plan for a pension fund should consider factors such as need for income and liquidity, risk tolerance, monitoring ability and guidelines, and investment time horizons.[16]

If the fund were in a stronger financial position, its current asset allocation might not raise significant concern. However, the lack of consideration for pressing issues such as the absence of any asset growth for nearly a decade; a preference for risk-seeking investments; highly illiquid assets, projected negative cash flow illustrating a high likelihood of the need for greater liquidity; and reported exhaustion period raises considerable concerns.

Midland Fire faces significant risk of near-term exhaustion.

The Governmental Accounting Standards Board (GASB) requires single-employer defined benefit pension plans to compare projections of the plan's assets to projected benefit payments and identify the year when projected assets will no longer be sufficient to cover 100 percent of the projected benefit payments, if such a date exists.[17] This projected date, sometimes called the fund's exhaustion or depletion date, is the date the fund is expected to run out of money, potentially leaving participants vulnerable to not receiving promised benefits.

Midland Fire has reported an exhaustion date of 2043 in its 2019 GASB report—only 22 years away. The GASB calculation specifically excludes contributions expected to finance the benefits of new members hired after the 2019 valuation date, so the PRB estimates including all expected contributions would extend the life of the fund another 15 to 20 years, to approximately 2060. While this projection does not guarantee that the fund's assets will deplete in 22 or 39 years, all stakeholders should be aware of this issue and take it very seriously.

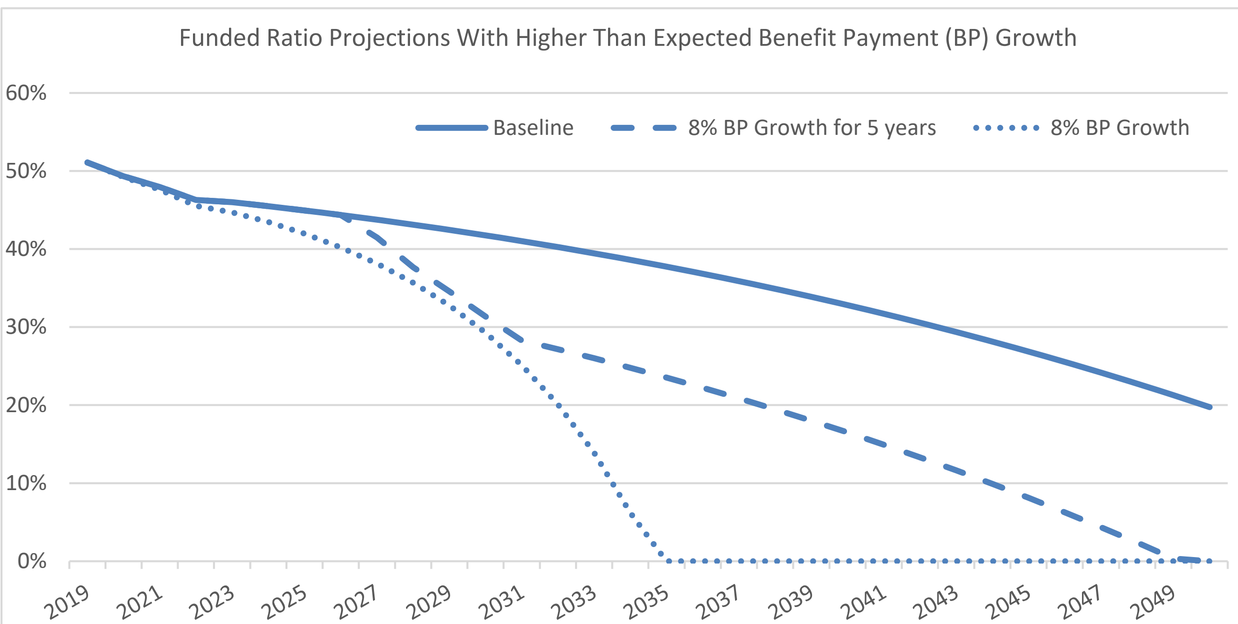
Additionally, the assumptions used for this projection can drastically influence the expected exhaustion date. In Midland Fire's case, the estimate assumes a consistent 7.5 percent return on assets and a 4 percent increase in benefit payments per year. However, total benefit payments for the fund have consistently increased an average of 8 to 10 percent per year over the past 20 years, while annuity payments (i.e., distributions without regard to the deferred retirement option plan and other lump sum

[16] GFOA, "Best Practices: Asset Allocation for Defined Benefit Pension Plans," accessed Oct. 2021, https://www.gfoa.org/materials/asset-allocation-for-defined-benefit-plans.
[17] Governmental Accounting Standards Board, "Summary - Statement No. 68," accessed Oct. 2021, https://www.gasb.org/jsp/GASB/Pronouncement_C/GASBSummaryPage&cid=1176160219492.

payments) have increased by approximately seven to eight percent per year over the same period. This is double the current assumed increase going forward.

Some of the fund's board members have indicated they believe it is a function of long-term understaffing, and the resulting in significant overtime translates to salary spiking, a rapid increase in an employee's compensation that can affect benefit calculations. The fund has further stated that issues with the city's payroll system have prevented it from fixing the problem. While the PRB is not able to evaluate this concern or the underlying causes of the benefit payment growth, it is evident that current projections of future benefit payment growth are significantly lower than the past 20 years of actual growth. If this trend is not addressed soon, the fund may find itself in dire circumstances.

Funded Ratio Projections With Higher Than Expected Benefit Payments (BP) Growth shows a simple stress test to illustrate the impact of higher-than-expected benefit payment growth rates. If benefit payments grew at a similar rate to the past 20 years, it would significantly accelerate the expected depletion of the fund, from 2060 to 2035. Further, even if the eight percent growth rate only continued for five more years, the expected exhaustion date would change to 2049. This should highlight the importance of quickly addressing this issue.



Of greater concern is the analysis above assumes assets consistently earn 7.5 percent per year. It does not consider the additional risks of underperformance that were previously mentioned or the risk of how the fund sets its asset allocation to target its return assumptions. A worst-case scenario analysis, factoring in the underperforming returns of less than 7.5 percent, would exacerbate the risk of the fund running out of money in as little as 10 to 12 years.

Midland Fire's board appears to be setting its asset allocation in a way to try to meet its actuarial return assumption of 7.5 percent per year. This is the reverse of how this assumption should be set and can cause a fund to take on too much risk. According to Actuarial Standard of Practice No. 27 and generally accepted actuarial standards of practice, investment allocation decisions should never be made with a goal of achieving a specific assumed rate of return. The assumed rate of return should only be calculated once an appropriate allocation and associated level of risk is determined. The asset allocation should be determined with consideration of expected future contributions and benefit payments and the amount of risk that the board feels appropriate. Based on an asset allocation using current capital market assumptions the actuary or investment consultant can determine what assumed rate of return can be recommended to the board. This is often an iterative process because, after reviewing the projections using an initial asset allocation, the board may consider making modifications depending on the level of risk associated with that allocation. The board cannot have a good understanding of the risk associated with its asset allocation without performing capital market projections.

With a significant risk of fund exhaustion, inconsistent investment performance averaging well below assumption targets, high investment expenses and increasing benefit payments, the board needs a plan that they can consistently follow and monitor its effectiveness.

Conclusions and Recommendations

Conduct an independent third-party forensic audit of Midland Fire's financial records to enhance efficiency of its investment program with increased focus on transparency and accountability.

The PRB recommends the fund and city to hire an independent firm specializing in forensic audits to evaluate and reconstruct the fund's financial records covering three years at a minimum, preferably five years. The evaluation should include a compliance review and risk assessment of the fund's investment program administration. This recommendation does not imply potential fraud or wrongdoing by Midland Fire.

A forensic evaluation could assess the overall effectiveness of the investment program. For example, the fund has indicated that it has been trying to fix some of the issues with its books and records to calculate composite investment returns for many years now without success, and they have stated that even the custodian bank has not been able to address this reporting issue. A forensic evaluation could include a reconstruction of financial records to help the fund to calculate composite investment returns and help resolve these issues, so the fund has a solid starting point to start making improvements.

The evaluation could also examine investment fees incurred over the past five years and assess and make recommendations regarding the fund's fee structure. During the intensive review process, it became deeply evident that accurate investment reports from Midland Fire were either unavailable or did not exist. This lack of transparency has allowed Midland Fire to avoid accountability to stakeholders, making it difficult to evaluate a nebulous investment program that lacks basic reporting information.

Considering the poor funding health of Midland Fire, recommending an analysis that may be costly was not easy; however, the board manages millions of dollars of firefighter and taxpayer money and is clearly facing trouble managing a complex investment program. Therefore, this recommendation is necessary. This money forms the foundation of many people's livelihoods in retirement, which is too important to handle without the highest fiduciary standards. Moreover, the cost can be justified given the persistent issues the fund has been struggling with for many years now: the lack of composite investment performance review; the depressed asset values; the unusually high fees; the very poor investment returns; the lack of availability of appropriate governance documents, especially for alternative investments; and the concerns regarding valuation methodologies used to assess the value of some of the alternative investments of the fund. Also, Section 802.206, Texas Government Code allows a plan sponsor to cover all or part of the cost of any professional evaluation services engaged by the fund.

Given the fund was aware of the reporting issues and allowed them to persist for years, it is imperative that a forensic audit is completed within a reasonable period to help the board and the city obtain a complete understanding of the fund's financial health before they engage in developing a remediation plan to address the current funding shortfall. Both the fund and city should jointly agree on the final selection of a third-party forensic auditor and determine the scope of the audit. This audit should be completed within six to nine months from the PRB's adoption of this review and its recommendations.

Conduct a governance audit by an independent third-party.

The PRB recommends the fund and the city jointly hire an independent third-party to conduct an audit of Midland Fire's governance structure and practices, with specific emphasis on the Midland Fire board. For public retirement systems, good governance generally means that decisions are made through processes that are consistent, well-documented, compliant with relevant statutes, and accessible to stakeholders. As illustrated through the findings of this review, Midland Fire's governance framework needs improvement in each of those areas.

As with the forensic audit, the PRB understands that a governance audit may create cost concerns for the plan, but at a minimum, Midland Fire should perform a governance review. Conducting some type of review is important, as a sound governance framework is pivotal to the success of a fund's investment program. Therefore, it would be highly beneficial for the fund to seek a thorough review of the board's governing documents and operating practices, including investment decision-making processes and practices with special consideration to the GFOA standards as outlined in the TLFFRA statute.

For example, the audit could review the following: board structure and oversight process, roles and responsibilities for board and staff, board operations, possible benefits of more frequent rotation of committee membership, board investment expertise, statutory compliance, and investment policy and other fund policies. As a result of the audit, the fund should be able to develop clear, long-term governance policies to guide the board to exercise its fiduciary duty including prudently selecting and managing investments and cost-effectively administering the fund so that efforts to improve fund health have a better chance of success. Long-term governance policies would also assist the fund with implementing a solid succession plan to pass on important practices to future board members.

Both the fund and city should jointly agree on the final selection of a third-party governance auditor and determine the scope of the audit. Additionally, the city can cover all or part of the cost of this audit and it should be completed within six to nine months from the PRB's adoption of this review and its recommendations.

Make use of professional expertise to guide investment program.

The PRB recommends the fund make use of investment professionals such as an investment consultant to assist the board and its investment committee to effectively manage the investment program. The fund has a complex investment program with significant exposure to alternative investments. An investment consultant could provide expert advice and guidance to the board on an ongoing basis regarding the entire investment program. The board can also seek a specialist who can focus on the program's alternative investment portfolio. Given asset allocation is one of the most important factors affecting investment performance, an experienced investment consultant could review the fund's current asset allocation based on its return objectives, risk tolerance, and cash flow needs to best structure the portfolio. A consultant could also help the board consider strategies that focus on using low cost, passive investments.

Based on the information gathered during the review, it appears the Midland Fire board and its investment committee are overly focused on operations relating to the investment program, including sourcing investments, manager selection, and monitoring individual investments. Additionally, on numerous occasions, the fund has identified that its staff and resources are limited; the fund has two dedicated staff members, and the board members are volunteers with full-time jobs. Considering these resource challenges, it would be unrealistic to expect the board to address the investment governance-related concerns laid out in this review without any professional help.

An investment consultant's services can be tailored to the needs of the fund and can include the following:

1. Establishing investment policy, objectives, and guidelines.
2. Assisting in determining appropriate asset class allocations and benchmarks.
3. Providing analytical input on the risk, return, correlation, and liquidity characteristics of asset classes and the overall fund portfolio.
4. Aiding in the selection and management of investments and investment managers.
5. Providing regular reports that review and evaluate fund investments and managers performance.
6. Performing any other tasks as deemed appropriate by the board.

Additionally, an investment consultant could assist Midland Fire's board and actuary perform useful analyses such as an asset-liability study and stress testing of the fund's investment portfolio. For a fund with a short time horizon and negative non-investment cash flow they should likely have a more liquid asset allocation. These types of analyses could provide necessary data for the fund's board to make appropriate asset allocation and liquidity need decisions to satisfy future benefits and guide its investment program in the right direction. Lastly, to identify additional areas of improvement, any investment consultant hired by the board should review the Midland Fire's 2020 Investment Practices and Performance Evaluation (IPPE) and the concerns raised by the PRB regarding this evaluation found in Appendix H of this report.

Develop a robust Funding Soundness Restoration Plan (FSRP) and Funding Policy that is sustainable and achievable.

The FSRP requirement was created in 2015 to allow systems and their sponsors to jointly develop a remediation plan to address funding issues and prevent putting members' benefits at serious risk. Additionally in 2019, all Texas pension plans were required to develop funding policies that target 100 percent funding. The policies were to be completed by January 2020. Midland Fire has not developed a funding policy and stated that it would be completed along with the FSRP, which was due in 2019.

This recommendation emphasizes the necessary first step to preventing both short- and long-term funding issues is developing a robust FSRP to mitigate further deterioration by identifying and addressing the causes of these issues. When developing the FSRP, the city and fund must consider that the legislature revised the FSRP provision in 2021 to require retirement systems to target a 30-year amortization period rather than the prior 40-year amortization period target.

To shore up funding, Midland Fire and the city should work together to determine the best balance between increased contributions and benefit reductions. It should be noted that a reduction in future benefit accruals will help prevent larger-than-expected near-term cash outflows. However, even at the modest four percent benefit payment growth currently expected, the fund still faces the threat of a potential asset exhaustion. Given current funding levels, an increase in contributions over the near term is also likely needed to stabilize the fund while other issues are addressed. These factors should be considered when creating the FSRP and funding policy; however, merely complying with the reporting requirements may not completely address the long-term risks faced by the fund. It is imperative that the fund begin working to mitigate the funding issues and work toward a long-term solution with the city with an FSRP and funding policy.

Commit to inform plan members of issues facing the fund, including distributing this review to them.

The PRB recommends the fund and city inform plan members of the concerns raised in this intensive review regarding the funding health of Midland Fire and recommendations made to address those concerns. Section 802.106(d), Texas Government Code requires all public retirement systems to provide each active and retired member with a summary of the financial condition of the fund if the actuary determines the funding is inadequate. The fund should also ensure that all plan members are fully aware of the FSRP and funding policy requirements and the potential plan design changes that may be considered to address both short and long-term funding issues. Plan members should be made aware of how the fund got to this position and should have a commitment from the board and city to develop meaningful, sustainable changes to the fund.

The fund and city should also commit to sending the forensic and governance audits to its members and publish those reports on its website. This would improve transparency by helping plan members and the public better understand and monitor how Midland Fire is managing issues stated in this report and any findings and recommendations made in the audits.

Keep the PRB and the Legislature informed of the progress.

The PRB recommends the fund and the city keep the PRB and the legislature informed of the progress on implementing these critical recommendations. The PRB can also provide technical assistance to help the fund and city aim towards improved fund health.

Appendix

A: Key Metrics

Metric	Amortization period (Infinite)
What it measures	Approximately how long it would take to fully fund the unfunded actuarial accrued liability (UAAL) based on the current funding policy.
Why it is important	Given the fund's current assumptions, an amortization period above 18 years indicates the contributions to the fund in the coming year are less than the interest accumulated for that same period and therefore the total UAAL is expected to grow over the near term. In addition, for a plan that contributes on a fixed-rate basis such as Midland Fire, the higher the amortization period, the more sensitive it is to small changes in the UAAL.
Peer comparison	Midland Fire currently is one of two plans with an infinite amortization period among peer TLFFRA plans.

Metric	Funded ratio (51.10%)
What it measures	The percent of a fund's actuarially accrued liabilities covered by its actuarial value of assets.
Why it is important	The lower the funded ratio, the fewer assets a fund has to pay its current and future benefit payments.
Peer comparison	Midland Fire's funded ratio is the third lowest in its peer TLFFRA plans.

Metric	UAAL as a percent of payroll (432.24%)
What it measures	The size of a plan's unfunded liability compared to the annual payroll of its active members.
Why it is important	Provides a way to compare plans of various sizes and expresses the outstanding pension debt relative to current personnel costs.
Peer comparison	The fund's UAAL as a percent of payroll is the eighth highest in the state.

Metric	Assumed rate of return (7.5%)
What it measures	The estimated annual rate of return on the fund's assets.
Why it is important	If actual future returns are lower than the assumed rate of return, future contributions will need to increase significantly, especially for a poorly funded plan. Midland Fire's assumed rate of return is 7.5 percent, while its actual 10-year investment rate of return for the period ending December 31, 2019, was only 5.10 percent.
Peer comparison	Midland Fire's assumed rate of return is higher than the national average of 7.18 percent.[18]

Metric	Payroll growth rate (3.25%)
What it measures	The estimated annual growth in the total payroll of active members contributing into the fund.
Why it is important	Contributions are calculated as a percent of active members' pay and are back-loaded based on the expected growth in total payroll. If payroll does not increase at this rate, actual contributions will not meet those expected in the Fund's actuarial valuations. Given the Fund's inactive and active liabilities are not fully funded; contributions below expected levels will have serious consequences on the Fund's long-term solvency.
Peer comparison	The fund's payroll growth rate of 3.25 percent is average for its peer group.

Metric	Actual contributions as a percent of actuarially determined contributions (69.68%)
What it measures	Whether the current employer contributions have met a theoretical minimum threshold.[19]
Why it is important	The employer's portion of the contribution is less than 70 percent of the amount needed to fund the fund on a rolling 30-year amortization period. The PRB's 2014 *Study of the Financial Health of Texas Public Retirement Systems* found that plans that have consistently received adequate funding are in a better position to meet their long-term obligations.
Peer comparison	This is the third largest shortfall percentage in its peer group.

[18] NASRA, *Issue Brief: Public Pension Plan Investment Return Assumptions*, February 2021.

[19] The theoretical minimum threshold, or actuarially determined contribution (ADC), is a target or recommended contribution "to the Fund as determined by the actuary using a contribution allocation procedure," as defined in Actuarial Standards of Practice No 4. If contributions to the Fund are made as a fixed rate based on statutory or contractual requirements, the ADC for this purpose is the contribution needed to fund the benefits accrued in the current year and maintain an amortization period that does not exceed 30 years, as required to be reported under §802.101(a), Texas Government Code.

Metric	Non-investment cash flow as a percent of fiduciary net position (-5.33%)
What it measures	Non-investment cash flow shows how much the fund is receiving through contributions in relation to its outflows: benefit payments, withdrawals and expenses.
Why it is important	Viewing this metric as a percent of total net assets, or fiduciary net position (FNP), in conjunction with the funded ratio and recognition of the relative maturity of a plan, provides information about the stability of a plan's funding arrangement.
Peer comparison	Midland Fire's non-investment cash flow as a percent of FNP is in the lowest quartile in the state. If this trend continues, the fund could face the potential risk of needing to liquidate a portion of existing assets to pay current benefits and/or expenses.

B: Plan Summary

The Midland Firemen's Relief and Retirement Fund ("Midland Fire") is established in the Texas Local Fire Fighters Retirement Act (TLFFRA). TLFFRA provides general guidelines for fund management, but leaves administration, plan design, contributions, and specific investments to the discretion of the board of trustees. Midland Fire, as with all TLFFRA systems, is entirely locally funded.

Benefits

Retirement Eligibility	Age 50 and 20 Years of Service or; 25 Years of Service
Vesting	Graded 100% at 20 years
Benefit Formula	75% x Final Average Salary +$80 x YCS > 20 + $500/month supplemental benefit after reaching 50/20
Final Average Salary (FAS)	Highest 60 months
COLA	2%, after receiving benefits for 5 yrs provided fund's investment performance does not fall below rolling audited 5-yr avg of 8.25%
Retirement Benefit Options	4 DROP Options: 1. Forward DROP 2. Reverse DROP (a partial lump sum option) 3. Retro DROP or 4. Combined DROP (Forward and Retro DROP)
Social Security	No

Contributions

As of the 2019 actuarial valuation, active members of Midland Fire contribute 14.2 percent of pay while the City of Midland contributes 22.2 percent of pay.

Membership

Total Active Members	Retired Members	Terminated	Total Members	Active-to-Annuitant Ratio
227	185	8	420	1.23

TLFFRA Board Structure

Active Members	3 - Members of the retirement system; elected by fund members. Three-year terms.
Sponsor Government	1 - Mayor or designated representative, or the political subdivision's Chief Operating Officer or designated representative. 1 - Chief Financial Officer of the political subdivision, or designated representative. Terms correspond to term of office.
Taxpayer, Not Affiliated With Fund/Sponsor Govt.	2 - Residents of the State of Texas, must not be officers/employees of the political subdivision; elected by other board of trustee members. Two-year terms.

Contribution and Benefit Decision-Making

TLFFRA authorizes members of the retirement systems to determine their contribution rates by voting. The statute requires cities to make contributions at the same rate paid by employees or 12 percent, whichever is smaller. TLFFRA also allows a city to contribute at a higher rate than employees through a change in city ordinance.

TLFFRA allows the board of trustees to make decisions to modify the benefits (increases and reductions). However, a proposed addition or change must be approved by the actuary and a majority of participating plan members. Benefit changes cannot deprive a member, retiree, or beneficiary of the right to receive vested accrued benefits.

Asset Allocation

Asset Allocation (as of 12/31/2019)					
Asset Class	Equities	Fixed Income	Real Estate	Alternatives	Other*
Current Allocation	29.87%	36.87%	17.83%	10.60%	4.83%
Target Allocation	30-50%	10-30%	20-30%	5-15%	1-15%

*Other includes capital assets, receivables, and cash

Peer Group	2019	Cash	Equity	Fixed Income	Real Estate	Alternatives	RE+AI
Lubbock Fire Pension Fund	$ 211,548,454	1.20%	35.80%	20.30%	11.62%	30.92%	42.54%
Amarillo Firemen's Relief & Retirement Fund	$ 193,539,560	6.84%	75.25%	17.68%	0.00%	0.00%	0.00%
Corpus Christi Fire Fighters' Retirement System	$ 157,587,141	1.17%	60.29%	26.11%	12.28%	0.00%	12.28%
Beaumont Firemen's Relief & Retirement Fund	$ 120,726,075	3.26%	62.85%	21.27%	4.71%	7.09%	11.80%
Denton Firemen's Relief & Retirement Fund	$ 103,815,795	13.20%	53.21%	15.57%	12.50%	5.36%	17.86%
Midland Firemen's Relief & Retirement Fund	**$ 84,848,966**	**4.67%**	**29.87%**	**36.87%**	**17.83%**	**10.60%**	**28.43%**
Tyler Firefighters' Relief & Retirement Fund	$ 74,572,571	1.59%	55.79%	32.10%	3.73%	6.79%	10.52%
San Angelo Firemen's Relief & Retirement Fund	$ 71,680,768	1.69%	60.42%	20.22%	3.53%	14.14%	17.67%
Abilene Firemen's Relief & Retirement Fund	$ 55,688,061	0.82%	67.65%	12.74%	0.00%	18.79%	18.79%
Odessa Firemen's Relief & Retirement Fund	$ 44,792,901	0.46%	68.77%	22.33%	7.39%	0.00%	7.39%
Big Spring Firemen's Relief & Retirement Fund	$ 13,231,702	1.55%	13.85%	76.97%	0.00%	7.63%	7.63%

Investments

Investment	Class	Description[20]	Value per IPPE
Cash	Cash		$17,485,148
Harvest Interest II (Strategic Partner Fund)	Real Estate	Real estate fund	$6,615,239
Davis Fund	Real Estate	$413.5 million real estate fund invested in multiple real estate equity, joint-venture equity, debt, and CMBS securities. The fund closed in 2012 and is fully committed.	$937,931
Moriah SRC Pref	Real Estate	1.8% ownership, real estate type unknown	$76,500
CDK Beach House Jacksonville	Real Estate	45% ownership, Senior Living - Jacksonville, FL	$314,134
Moriah Hospitality	Real Estate	3.7% ownership, hotel and motel direct investment fund	$275,442
CDK Multi-Family	Real Estate	26.84% ownership, two properties left to sell	$2,557,241
101 N G Street, Midland, TX, 79701	Real Estate	Commercial building (barbershop)	$98,767
105 N G Street, Midland, TX, 79701	Real Estate	Office building (including fund offices)	$1,190,922
Silverado Autumn Leaves Westover Hills	Real Estate	Ashford Apartments (Carrollton, Texas)	$500,000
IM Multi-Family	Real Estate	No data provided in IPPE other than shown as 42.84% investor in CDK Multi-Family	$2,030,071
Glendower	Alternative	Closed $1.4B PE fund seeks to target GP restructuring transactions, as well as acquire limited partnership Interests In private equity funds and privately-held companies. Geographically, it looks to target opportunities on a global scale with a focus on North America and Europe. The fund may also consider opportunities focused on Asia and across the emerging markets, to a lesser extent.	$2,010,057
Greenspring V	Alternative	Private Equity investment primarily in tech companies	$1,837,507
Greenspring V-B	Alternative	Private Equity investment primarily in tech companies	$361,895
NBW Capital	Alternative	Advisor Managed Discretionary Account investing in publicly traded MLP strategy	$3,521,573
Westwood MLP	Alternative	MLP Mutual fund. Fund itself was closed and liquidated Aug 2019	$2,392,496
Westwood LC Value	Equity	Large Cap Value	$2,935,387
Westwood SMID Value	Equity	Small/Mid Cap Value	$2,749,288
Lazard International Equity SM	Equity	International Equity Small Cap MF (EAFE)	$7,404,865
Morgan Stanley Global International	Equity	International Equity MF	$5,692,633
SeaCrest Hybrid Fixed-Income	Fixed Income	80% Investment Grade FI/20% other income strategies	$729,938
Seacrest International Sovereign Debt	Fixed Income	Non-US dollar denominated debt 67% Developing/21% Developed/12% Cash	$10,272,102
Loomis Sayles Hybrid Fixed-Income	Fixed Income	Potential discretionary account Maximum <BBB: 50%, Maximum emerging markets debt: 40%, Maximum non-US dollar: 25%	$8,529,192
Westwood High-Yield Short-Term	Fixed Income	41% High Yield/25% Equity/23% Investment Grade/7% Convertibles/remaining small amounts	$9,982,421
Westwood High-Yield Fixed-Income	Fixed Income	41% High Yield/25% Equity/23% Investment Grade/7% Convertibles/remaining small amounts	$3,019,657

[20] Descriptions based on information provided in IPPE, supplemental documents from the fund, or independent PRB research.

Investment Returns

Rates of Return (as of 12/31/2019)			
Time Period	**1-year**	**3-year**	**10-year**
Gross Return[21]	N/A	N/A	N/A
Net Return[22]	9.86	4.06%	5.10%

Expense Breakdown

Fiscal Year ending 12/31/2019	
Fiduciary Net Position (FNP)	$84,848,970
Investment Expenses	$1,215,007
Investment Expenses % of FNP	1.43%
Administrative Expenses	$219,379
Administrative Expenses % of FNP	0.29%

C: Historical Trends

To conduct an intensive review of risks associated with the long-term funding of a pension fund, it is important to analyze trends in multiple metrics. A plan with an asset level lower than its accrued liability has insufficient funds to cover benefits. A plan can experience an increase in unfunded liability due to various factors, including insufficient investment returns, inadequate contributions and inaccurate or overly aggressive assumptions. Hence, a single metric cannot effectively capture the different drivers contributing to the increase of a plan's unfunded pension obligation. This section analyzes historical trends in various metrics identified by the PRB and makes comparisons to understand the sources of growth in unfunded liability for Midland Fire.

Midland Fire's funded status has been steadily declining since 2000. Numerous factors have contributed to this deterioration, including inadequate contributions, investment returns being lower than the chosen assumption, and increased benefit payments.

[21] 2019 Gross Returns are not available as Midland has not reported the 2019 gross return but did provide the net return.
[22] The 3-year and 10-year returns are PRB calculated as Midland has not submitted reported the rolling returns.

Assets and Liabilities

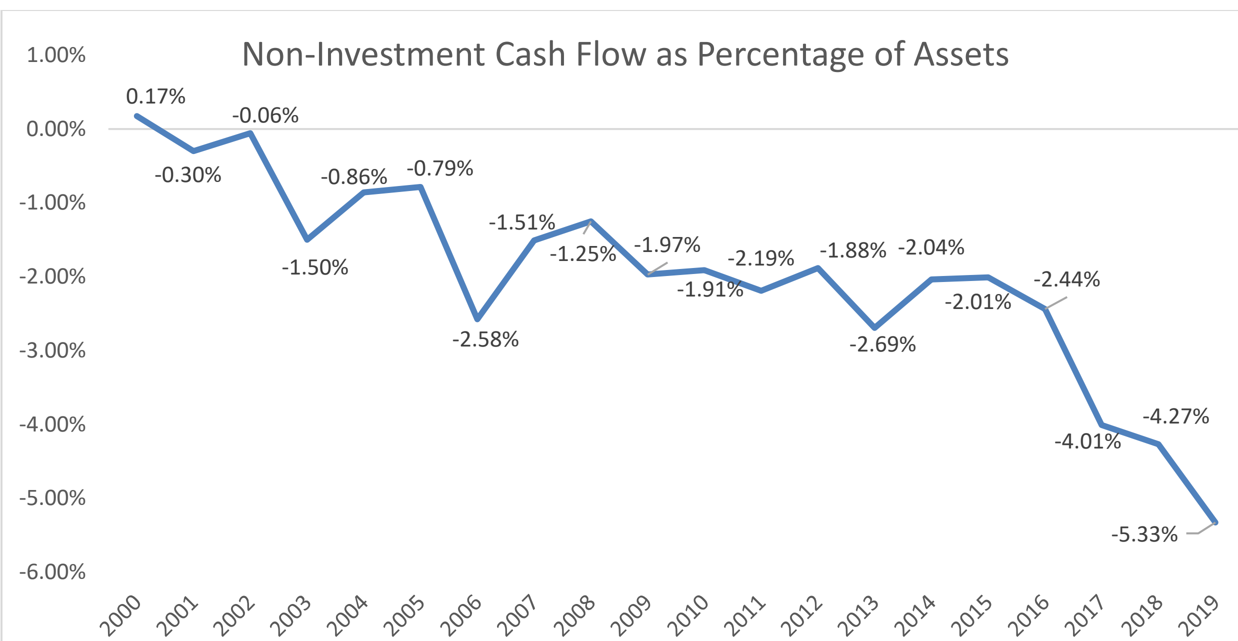
Funding Trends Funded Ratio, Assets, Liabilities and Year over Year Growth									
Valuation Year	2004	2006	2008	2010	2012	2014	2015	2017	2019
Funded Ratio	74.46%	73.36%	72.14%	78.10%	72.23%	66.82%	65.78%	60.91%	51.10%
Amortization Period (years)	35.2	47.2	47	41.2	86.3	59.1	44.7	Infinite	Infinite
UAAL (in millions)	$17.54	$21.34	$26.02	$19.78	$28.09	$38.96	$45.27	$58.95	$86.85
AVA (in millions)	$51.13	$58.78	$67.39	$70.55	$73.07	$78.48	$87.00	$91.86	$90.75
AVA Growth (YoY)	2.63%	7.22%	7.07%	2.32%	1.76%	3.64%	5.29%	2.75%	-0.60%
AAL (in millions)	$68.67	$80.12	$93.41	$90.34	$101.16	$117.44	$132.27	$150.81	$177.60
AAL Growth (YoY)	8.07%	8.01%	7.98%	-1.66%	5.82%	7.75%	6.12%	6.78%	8.52%

Midland Fire's actuarial accrued liability (AAL) nearly doubled between 2006 and 2019. During the same period, the actuarial value of assets (AVA) only increased by 54 percent. The fund was 94 percent funded in 2000 but fell to below 51 percent in 2019.

Cash Flow

Midland Fire was in the lowest quartile of non-investment cash flow in its peer group in 2019. Total contributions have grown on average by six percent annually since 2009 but are being outpaced by the average growth in yearly benefit disbursements of eight percent. Benefit disbursements and contribution refunds exceed the amount of contributions the fund receives by 25 percent on average.

A negative non-investment cash flow is not abnormal for mature defined benefit pension plans. However, a cash flow percentage this low is likely to be a drag on potential investment returns because a plan must either invest in a higher proportion of income-producing investments, which traditionally provide lower returns, or must liquidate existing assets to pay out current benefits or expenses.



D: Peer Group Key Metric Comparison

		Funding Val Metrics						Fiscal Year End Metrics			
Peer Group Plans	MVA	Am Period Date	Am Period	Funded Ratio	UAAL as % of Payroll	Assumed Interest	Payroll Growth	FYE	Actual Cont. as % of ADC	DROP as % of FNP	Non-Investment Cash Flow as % of FNP
Lubbock Fire Pension Fund	$224,469,634	12/31/2020	33.7	69.53%	241.07%	7.50%	3.25%	12/31/2019	94.45%	N/A	-2.15%
Amarillo Firemen's Relief & Retirement Fund	$193,539,560	12/31/2019	38.10	82.00%	185.22%	7.50%	3.00%	9/30/2019	91.52%	N/A	-3.59%
Corpus Christi Fire Fighters' Retirement System	$157,587,141	12/31/2018	29.80	60.21%	305.70%	7.50%	3.10%	12/31/2019	98.21%	N/A	-2.31%
Beaumont Firemen's Relief & Retirement Fund	$120,726,075	12/31/2018	Infinite	55.80%	457.43%	7.50%	3.00%	12/31/2019	48.14%	34.42%	-5.64%
Denton Firemen's Relief & Retirement Fund	$103,815,795	12/31/2019	18.30	80.79%	115.79%	6.75%	3.00%	9/30/2019	100.00%	N/A	1.60%
Midland Firemen's Relief & Retirement Fund	**$84,848,966**	**12/31/2019**	**Infinite**	**51.10%**	**432.24%**	**7.50%**	**3.25%**	**12/31/2019**	**69.68%**	**0.60%**	**-5.33%**
Tyler Firefighters' Relief & Retirement Fund	$74,572,571	12/31/2019	29.00	71.13%	240.14%	7.25%	3.00%	12/31/2019	108.31%	N/A	-3.10%
San Angelo Firemen's Relief & Retirement Fund	$71,680,768	12/31/2019	37.60	61.97%	339.34%	7.80%	3.50%	12/31/2019	95.30%	N/A	-2.25%
Abilene Firemen's Relief & Retirement Fund	$55,688,061	10/1/2019	31.40	49.07%	393.82%	7.50%	3.00%	9/30/2019	96.44%	N/A	-6.29%
Odessa Firemen's Relief & Retirement Fund	$44,792,901	1/1/2020	37.50	36.81%	544.63%	7.50%	3.50%	12/31/2019	69.92%	4.40%	-6.81%
Big Spring Firemen's Relief & Retirement Fund	$13,231,702	1/1/2019	38.33	53.22%	245.07%	7.75%	4.50%	12/31/2019	92.73%	N/A	-0.39%

E: Peer Group Sponsor Funding Comparison

Peer Group Plans	General Fund Expenditures (GFE)	EOY GF Bal	UAAL	Expected Employer Contributions	ADC	30-yr Shortfall	30-Y SF % of ADC	30-Y SF % of GFE
Lubbock Fire Pension Fund	$184,735,236	$74,948,958	$94,995,833	$7,824,216	$8,133,588	$309,372	3.80%	0.17%
Amarillo Firemen's Relief & Retirement Fund	$171,755,260	$64,062,524	$38,901,102	$4,372,795	$4,591,225	$218,430	4.76%	0.13%
Corpus Christi Fire Fighters' Retirement System	$232,388,294	$86,614,870	$99,896,125	$6,953,895	$6,953,895	$-	0.00%	0.00%
Beaumont Firemen's Relief & Retirement Fund	$124,739,204	$50,566,112	$88,543,261	$3,000,257	$6,232,792	$3,232,535	51.86%	2.59%
Denton Firemen's Relief & Retirement Fund	$115,291,908	$33,782,211	$23,333,103	$3,728,062	$3,472,136	$(255,926)	-7.37%	-0.22%
Midland Firemen's Relief & Retirement Fund	**$140,061,930**	**$123,576,144**	**$86,848,661**	**$4,460,529**	**$7,514,584**	**$3,054,055**	**40.64%**	**2.18%**
Tyler Firefighters' Relief & Retirement Fund	$72,283,287	$26,875,395	$29,442,082	$2,602,913	$2,745,136	$142,223	5.18%	0.20%
San Angelo Firemen's Relief & Retirement Fund	$82,050,627	$48,741,966	$42,886,258	$2,552,876	$2,830,912	$278,036	9.82%	0.34%
Abilene Firemen's Relief & Retirement Fund	$93,767,930	$34,456,289	$60,298,270	$3,253,586	$3,342,390	$88,804	2.66%	0.09%
Odessa Firemen's Relief & Retirement Fund	$89,247,303	$105,884,962	$74,245,186	$4,185,169	$3,995,227	$(189,942)	-4.75%	-0.21%
Big Spring Firemen's Relief & Retirement Fund	$21,923,239	$9,362,120	$10,439,548	$638,979	$702,877	$63,898	9.09%	0.29%

F: Peer Group Expense Comparison

Peer Group Plans	10 yr. return (Net)[23]	Active/ Annuitants	Average Benefit	NPL	Admin Expenses	Admin Exp as % of Assets	Investment Expenses	Inv Exp as % of Assets	Other Expenses	Total Expenses	Exp as % of Assets
Lubbock Fire Pension Fund	6.68%	1.34	$ 53,955	$ 81,471,416	$ 316,533	0.15%	$ 135,381	0.06%	-	$ 451,914	0.21%
Amarillo Firemen's Relief & Retirement Fund	9.87%	1.24	$ 57,058	$ 22,573,246	$ 66,525	0.03%	$ 586,263	0.30%	-	$ 652,788	0.33%
Corpus Christi Fire Fighters' Retirement System	7.57%	1.20	$ 41,322	$ 102,626,740	$ 316,029	0.20%	$ 502,933	0.32%	-	$ 818,962	0.52%
Beaumont Firemen's Relief & Retirement Fund	7.78%	0.98	$ 53,471	$ 188,787,980	$ 350,912	0.29%	$ 487,847	0.40%	-	$ 838,759	0.69%
Denton Firemen's Relief & Retirement Fund	9.33%	2.29	$ 50,083	$ 12,653,601	$ 71,427	0.07%	$ 178,458	0.17%	-	$ 249,885	0.24%
Midland Firemen's Relief & Retirement Fund	**5.10%**	**0.91**	**$ 55,118**	**$ 92,884,709**	**$ 219,379**	**0.26%**	**$ 1,215,007**	**1.43%**	**$171,028**	**$ 1,605,414**	**1.89%**
Tyler Firefighters' Relief & Retirement Fund	7.57%	1.39	$ 54,800	$ 24,382,604	$ 112,448	0.32%	$ 0	0.00%	$78,691	$ 191,139	0.54%
San Angelo Firemen's Relief & Retirement Fund	7.68%	1.18	$39,309	$41,077,950	$ 73,426	0.10%	$ 309,116	0.43%	-	$ 382,542	0.53%
Abilene Firemen's Relief & Retirement Fund	6.48%	1.10	$39,957	$ 63,054,590	$ 100,717	0.18%	$ 177,771	0.32%	-	$ 278,488	0.50%
Odessa Firemen's Relief & Retirement Fund	6.88%	0.89	$42,795	$ 69,999,260	$ 240,679	0.54%	$ 91,535	0.20%	-	$ 332,214	0.74%
Big Spring Firemen's Relief & Retirement Fund	7.22%	1.45	$25,855	$ 10,292,219	$ 70,623	0.53%	$ 0	0.00%	-	$ 70,623	0.53%

[23] All 10-year returns are as of the respective plan's 2019 fiscal year.

G: Peer Group Value of Benefits Comparison

Peer Group Plans	Retirement Age	YCS	(a) Multiplier as % of FAS	Normal Form of Payment	COLA	Social Security?	(b) Annuity Factor[24]	(a)*(b) PVFB as % of FAS
Lubbock Fire Pension Fund	50	20	69%	Life Annuity with J/S 66%	None	No	26.6	18.4
Amarillo Firemen's Relief & Retirement Fund	50	20	65%	Life Annuity	None	No	23.8	15.5
Corpus Christi Fire Fighters' Retirement System	54	20	52%	Life Annuity	None	No	22.0	11.4
Beaumont Firemen's Relief & Retirement Fund	50	20	63%	Life Annuity with J/S 75%	None	No	27.1	17.1
Denton Firemen's Relief & Retirement Fund	50	20	52%	Life Annuity with J/S 66%	None	Yes	26.6	13.8
Midland Firemen's Relief & Retirement Fund	**50**	**20**	**75%**	**Life Annuity with J/S 75%**	**None**	**No**	**27.1**	**20.3**
Tyler Firefighters' Relief & Retirement Fund	50	25	72%	Life Annuity with J/S 66%	None	No	26.6	19.0
San Angelo Firemen's Relief & Retirement Fund	50	20	66%	Life Annuity with J/S 72%	Deferred to 65 1.2%	No	30.4	20.1
Abilene Firemen's Relief & Retirement Fund	53	20	55%	Life Annuity with J/S 66%	None	No	25.4	14.0
Odessa Firemen's Relief & Retirement Fund	55	25	72%	Life Annuity	None	Yes	21.5	15.5
Big Spring Firemen's Relief & Retirement Fund	50	20	51%	Life Annuity with J/S 66%	None	No	26.6	13.6

[24] Calculated using 2.5% interest rate, male members with spouses 2 years younger, and RP 2006 Healthy Annuitant mortality with fully generational projection using scale MP2018.

H: PRB IPPE Review

Review of MFRRF IPPE and Investment Practices

Summary

The evaluation consists of responses to the questions in the PRB's informal *Guidance for Investment Practices and Performance Evaluation.* However, many of the responses are single word answers, include limited analysis, and/or do not address the intended subject matter. For example, for the question "Is an attorney reviewing any investment fee arrangements for alternative investments?" the response provided is "Sometimes. It depends." with no further discussion of the subject included elsewhere in the IPPE.

The following sections outline several questions and/or concerns regarding both current policies and procedures as well as the evaluation itself. Some of the listed items might be considered innocuous when viewed individually but are more concerning when considered as whole.

Investment Policy Statement

The IPPE provides an affirmative response to several questions regarding the content of the IPS but in general does not provide recommendations for improvement or reference to outside documents to explain how the IPS meets best practices or guidelines outlined in TLFFRA statute. The PRB notes:

1) TLFFRA statute Sections 27 and 28 direct boards to "adopt formal investment policies that emphasize safety and diversity as well as liquidity for benefit payments," and "give special consideration to the preferred investment practices of the Government Financial Officers Association [GFOA]."
2) The IPS is a one-page document that does not include many items that are considered best practice by the CFA Institute or the GFOA.
3) The IPPE indicates the "roles and responsibilities of those involved in governance, investing, consulting, monitoring and custody" are clearly outlined in the IPS. While the IPS refers to TLFFRA statute which directs boards to "adopt formal investment policies."
4) The IPPE indicates the IPS contains measurable investment manager performance goals by asset class. This information is not included the IPS. The IPS states, "Investment managers, once chosen, will be retained as long as the Board determines that the investment philosophy utilized and returns realized are appropriate for the long-term needs of the MFRRF."
5) The IPS does not identify the investment objective and time horizon which are specifically identified in many industry standards for best practice.
6) There are no formal or specific policies in place to review the overall effectiveness of the investment program. The IPPE indicates the Fund evaluates its overall portfolio performance based on whether it is "meeting actuarial assumptions."

Asset Allocation

1) Per Texas Government Code §802.109(a)(2)(A), the evaluation is required to include "a detailed review of the retirement system's investment asset allocation, including: the process for determining target allocations." The IPPE states there is a formal written policy, however the IPS/IPPE do not include the process.
2) Per Texas Government Code §802.109(a)(2)(C), the evaluation should assess "the appropriateness of selection and valuation methodologies of alternative and illiquid assets." The

IPPE does not discuss the valuation methodology of alternative or illiquid assets, nor does it discuss how the Fund's policies compare to industry standards. Reponses to relevant questions discuss how returns are calculated, not how the investments are selected or the assets themselves are valued.

3) The capital market assumptions provided in the evaluation need clarification regarding how the expectations were calculated. They appear to differ rather drastically from what is provided in the plan's annual financial audit and from other industry expert surveys. One specific example would be the expected 7.31% return on fixed income included in the IPPE vs. the MFRRF actuary's 3-4% expected return.
4) According to the 12/31/2019 audit, the Fund holds approximately 20-30% of its total portfolio in illiquid assets (generally assets valued at Level III and potential redemption periods of 30 days or longer) but there is very little discussion in the IPPE about the appropriateness of these assets or how the risk it presents to the long-term solvency of the Fund is evaluated, if at all.
5) In addition to a large allocation to illiquid assets, the liquid portion appears to be heavily allocated to higher risk investments, such has high-yield fixed income, international fixed income, including sovereign debt and emerging markets. However, the IPPE provides no discussion on the investment tilt to higher risk.

Fees and Commissions

1) The evaluation notes that the investment fees are "in-line with industry averages," however no data is provided to show how the system ranks compared to peers or industry averages and no explanation is provided for how this conclusion is drawn.

Manager Selection and Monitoring

1) Per Texas Government Code §802.109(a)(5), the evaluations should provide "a review of the retirement system's investment manager selection and monitoring process." The IPPE provides limited descriptions regarding how the managers are selected but does not "evaluate the appropriateness, adequacy, and effectiveness" of this approach, per statute.
2) The Fund invests a large percentage in direct real estate and other illiquid investments but appears to have very few, if any, formal policies on how to select, manage, or evaluate these complicated assets.

Other General Notes

1) The IPPE does not have a publication date which makes it difficult for the public stakeholders to understand the context of the analysis or period reviewed.
2) The evaluation references an asset/liability study performed in 2019, but the PRB was informed no formal study was conducted, so it is unclear how it could be considered part of the evaluation.
3) The evaluation provided a list (Tab 3) that discloses investment positions of the Fund. More explanation is needed on the following to aid in the usefulness of the document:
    a. It is unclear if the expected return is intended to be an annualized return or a total return since inception.
    b. The asset class expected return is the same as the investment return when normally there would be some return variance.
    c. The sum of individual asset values exceeds both the total reported at the bottom of the list as well as the value reported in the audit by a significant margin.
    d. Certain individual asset values exceed the value reported in the audit by a significant margin.

I: Midland Fire's Investment Policy Statement Approved 4/23/2020

MIDLAND FIREMEN'S RELIEF AND RETIREMENT FUND
STATEMENT OF INVESTMENT POLICIES
Revised 4/23/2020

The Midland Firemen's Relief and Retirement Fund (MFRRF) is subject to the provisions of Article 6243e, Vernon's Texas Civil Statutes, 45th Legislature, Regular session 1937, as revised. This statute describes an act relating to membership and credit in and benefits and administration of certain retirement systems for paid fire fighters. This Fund is directed by a Board of Trustees (Board) consisting of seven members.

The duties of the Trustees, approved delegations to investment managers and other fiduciaries, prohibited transactions, authorized transactions and liability for breach of fiduciary duties are all set forth in Article 6243e, Sections 27 and 28. These provisions are provided by MFRRF to all investment managers, advisors or consultants. MFRRF is to be managed with that care, skill, prudence and diligence that a prudent person familiar with such matters would use in like circumstances, i.e., it is to be managed under the prudent person provisions.

On December 19, 2012, the Board of Trustees of Midland Firemen's Relief and Retirement Fund gave the Investment Committee (collectively, not one individual) the authority to move a percentage of U.S. Equity to/from fixed income based on market conditions to hedge volatility (from stock to bond and back from bond to stock). All moves will be reported to the Board of Trustees at the upcoming Board Meeting.

On October 26, 2017, the Board of Trustees of Midland Firemen's Relief and Retirement Fund adopted a variance limit of asset classes. The Board recommends 1-15% in cash or cash equivalents (fully utilizing money market funds in the interim), 10-30% in bonds, 15-25% in U.S. equities (to include exposure to small, medium and large capitalization classes), 15-25% in emerging and developed international equities (to include exposure to small, medium and large capitalization classes), 20%-30% in Real Estate Class, 5-15% in alternative investments (that may include exposure to hedge fund, fund of funds, private equity, distressed debt and other alternative investment vehicles). If the variance limit, at anytime, falls outside the recommended amounts, such variance must be ratified by the Board of Trustees at the first regularly scheduled Board meeting following this occurrence. This recommendation is subject to change from time to time by Board action.

Investment managers, once chosen, will be retained as long as the Board determines that the investment philosophy utilized and returns realized are appropriate for the long-term needs of the MFRRF.

Investment managers must manage MFRRF assets according to their stated investment policies as presented to the Board. No deviation from stated policy is authorized unless first discussed with the Board and written approval from the Board is issued.

Investment managers must advise the Board in writing of any changes in the investment manager's organization, decision-making structure, ownership, investment style, key personnel or any other material change and state the anticipated impact on the investment manager's ability to provide the same style and type of management on a continuing basis.

Chairman

Vice Chairman

Treasurer/Secretary

J: Midland Fire's Investment Policy Statement Approved 10/25/2021

Investment Policy Statement
MIDLAND FIREMEN's RELIEF & RETIREMENT FUND

Approved on 10/25/2021

By Board of Trustees
This investment policy statement should be reviewed and updated at least annually. Any change to this policy should be communicated in writing on a timely basis to all interested parties.

EXECUTIVE SUMMARY

Type of Fund:	**Defined Benefit - Pension Fund**
Plan Sponsor:	**City of Midland, Texas**
Plan Name:	**Midland Firemen's Relief & Retirement Fund**
IRS Tax Identification:	**75-6065580**
Current Assets:	**$90,000,000**
Time Horizon:	**Greater than 30 years**
Return Objective:	**7.50% (4.50% over the Consumer Price Index)**

INVESTMENT STRUCTURE

This structure includes various asset classes, investment management styles, asset allocation and acceptable ranges that, in total, are designed to produce a sufficient level of overall diversification and total investment return potential over the long-term.

ASSET ALLOCATION

Asset Class	Minimum Weight	Maximum Weight	Target Weight
Equities	30%	50%	35%
Fixed Income	10%	30%	20%
Alternatives	15%	30%	35%
Cash & Equivalents	1%	10%	10%

BACKGROUND

The **Midland Firemen's Relief & Retirement Fund** is a pension fund established in 1941. The plan covers substantially all employees of the Midland Fire Department. Midland Firemen's Relief and Retirement Fund is governed by Article 6243e Vernon's Texas Civil Statutes and Chapter 802 of the Texas Government Code.

The Retirement Plan Board of Trustees will discharge its responsibilities under the Plan solely in the long-term interests of Plan participants and their beneficiaries.

PURPOSE

The purpose of this Investment Policy Statement (IPS) is to assist the Board of Trustees ("Board") in effectively supervising, monitoring and evaluating the investment of the Midland Firemen's Relief & Retirement Fund ("Plan") assets. This statement is set forth by the Board in order to:

1. State in a written document the Board's attitudes, expectations, objectives and guidelines for the investment of all Plan assets.
2. Set forth an investment structure for managing all Plan assets.
3. Encourage effective communications between the Board, the Consultant, investment managers, and/or custodian.

4. Establish formal criteria to select, monitor, evaluate and compare the performance results achieved by the various investment managers on a regular basis.
5. Establish procedures for selecting, monitoring, evaluating, and, if appropriate, replacing investment options.
6. Establish the relevant investment horizon for which Plan assets will be managed.
7. Manage Plan assets according to prudent standards and applicable laws, as established for such assets.

This IPS has been formulated, based upon consideration by the Board of the financial implications of a wide range of policies, and describes the prudent investment process the Board deems appropriate.

DUTIES AND RESPONSIBILITIES

Delegation of Authority

The Board members are fiduciaries and are responsible for directing and monitoring the investment management of Plan assets. As such, the Board is authorized to delegate certain responsibilities to professional experts in various fields. These include, but are not limited to:

1. Investment Consultant. The investment consultant may assist the Board in: Establishing investment policy, objectives, and guidelines; selecting investment options and managers; reviewing such options and managers over time; measuring and evaluating investment performance; and other tasks as deemed appropriate.
2. Investment Manager(s). If selected, the investment manager(s) has discretion to purchase, sell, or hold the specific securities that will be used to meet the Plan's investment objectives.
3. Custodian. The custodian will physically (or through agreement with a sub-custodian) maintain possession of securities owned by the Plan, collect dividend and interest payments, redeem maturing securities, and effect receipt and delivery following purchases and sales. The custodian may also perform regular accounting of all assets owned, purchased, or sold, as well as movements of assets into and out of the Plan accounts.
4. Additional specialists such as attorneys, auditors, actuaries, and others may be employed by the Board to assist in meeting its responsibilities and obligations to administer Plan assets prudently.

Investment managers will be held accountable to achieve the objectives herein stated. While it is not believed that the limitations will hamper investment managers, each manager should request modifications which they deem appropriate.

ASSIGNMENT OF RESPONSIBILITY

Board of Trustees

The Board is charged by law with the responsibility for the management of the assets of the Plan. The Board shall discharge its duties solely in the interest of the Plan, with the care, skill, prudence and diligence under the circumstances then prevailing, that a prudent man, acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character with like aims. The specific responsibilities of the Board relating to the investment management of Plan assets include:

1. Prepare and maintain this investment policy statement. Establishing investment objectives, policies and guidelines.
2. Prudently diversify the Plan's assets to meet an agreed upon risk/return profile. Projecting Plan's financial needs, determining risk tolerance and time horizon.
3. Prudently select investment options. Developing and enacting proper control procedures. For example, replacing an investment manager due to a fundamental change in investment management process, or failure to comply with established guidelines.
4. Control and account for all investment, record keeping and administrative expenses associated with the Plan.

5. Monitor and supervise all professional experts and investment options. Prudently and diligently selecting and monitoring qualified investment professionals, including investment manager(s), an investment consultant, and a custodian.
6. Avoid prohibited transactions and conflicts of interest.

Investment Consultant

The Board will retain an objective, third-party Investment Consultant ("Consultant") to assist the Board in managing the overall investment process. The Consultant will be responsible for guiding the Board through a disciplined and rigorous investment process to enable the Board to meet the fiduciary responsibilities outlined above.

The Consultant's role is that of a non-discretionary advisor to the Board of Trustees. Investment guidance concerning the investment management of Plan assets will be offered by the Consultant, and will be consistent with the investment objectives, policies, guidelines and constraints as established in this statement. Specific responsibilities of the Consultant include:

1. Assisting in the development and periodic review of investment policy.
2. Assisting with investment manager searches when requested by the Board.
3. Where applicable, providing "due diligence," or research, on the investment manager(s).
4. Assisting the board with monitoring the performance of the investment manager(s) to provide the Board with the ability to determine the progress toward the investment objectives.
5. Communicating matters of policy, manager research, and manager performance to the Board.
6. Reviewing Plan investment history, historical capital markets performance and the contents of this investment policy statement to any newly appointed members of the Board.

Investment Managers

As distinguished from the Board and Consultant, who are responsible for managing the investment process, investment managers are responsible for making investment decisions (security selection and price decisions). The specific duties and responsibilities of each investment manager are:

1. Manage the assets under their supervision in accordance with the guidelines and objectives outlined in their respective Service Agreements, Prospectus or Trust Agreement.
2. Exercise full investment discretion with regards to buying, managing, and selling assets held in the portfolios.
3. Unless otherwise stated, vote promptly all proxies and related actions in a manner consistent with the best interest and objectives of all clients as described in applicable account opening documents, provided proxy materials are available. Each investment manager shall keep detailed records of the voting of proxies and related actions and will comply with all applicable regulatory obligations.
4. Communicate to the Consultant all material changes pertaining to the fund it manages or the firm itself. Changes in ownership, organizational structure, financial condition, and professional staff are examples of changes that may require notification.
5. Effect all transactions for the Plan subject "to best price and execution." If a manager utilizes brokerage from the Plan assets to effect "soft dollar" transactions, detailed records will be kept in accordance with applicable regulations.
6. Use the same care, skill, prudence, and due diligence under the circumstances then prevailing that experienced investment professionals acting in a like capacity and fully familiar with such matters would use in like activities for like funds with like aims in accordance and compliance with all applicable laws, rules, and regulations.

Custodian

Custodians are responsible for the safekeeping of the Plan's assets. The specific duties and responsibilities of the custodian are:

1. Maintain separate accounts by legal registration.
2. Value the holdings.

3. Collect all income and dividends owed to the Plan.
4. Settle all transactions (buy-sell orders) initiated by the Investment Manager.
5. Provide monthly reports that detail transactions, cash flows, securities held and their current value, and change in value of each security and the overall portfolio since the previous report.

STATEMENT OF OBJECTIVES

This IPS has been arrived at upon consideration by the Board by a wide range of policies, and describes the prudent investment process the Board deems appropriate. This process includes offering various asset classes and investment management styles that, in total, are expected to offer participants a sufficient level of overall diversification and total investment return over the long-term. The objectives are:

1. Maintain a fully funded status with regard to the Accumulated Benefit Obligation and 90% of the Projected Benefit Obligation.
2. Have the ability to pay all benefit and expense obligations when due.
3. Maintain a "funding cushion" for unexpected developments and for possible future increases in benefit structure and expense levels.
4. Maintain flexibility in determining the future level of contributions.
5. Maximize return within reasonable and prudent levels of risk in order to minimize contributions.
6. Control costs of administering the plan and managing the investments.

Investment results are the critical element in achieving the investment objectives, while reliance on contributions is a secondary element. In accordance with this Investment Policy, the total return objective is 7.50%. The total return is annualized in timeframes over one year, and reviewed over a market cycle of 3-5 years. On a quarter-to-quarter basis, the actual returns will fluctuate and can be expected to exceed the benchmark about half the time.

Time Horizon

There is a requirement to maintain sufficient liquid reserves to provide for the payment of retirement benefits. Analysis of the cash flow projections of the Plan indicates benefit payments will exceed contributions for at least several years. The Board's Administrator will notify the Investment Consultant and/or Managers well in advance of the withdraw orders to allow sufficient time to build up necessary liquid reserves.

Risk Tolerance

The Board recognizes the difficulty of achieving the Plan's investment objectives in light of the uncertainties and complexities of contemporary investment markets. The Board also recognizes some risk must be assumed to achieve the Plan's long-term investment objectives. In establishing the risk tolerances of the IPS, the ability to withstand short and intermediate term variability were considered. These factors were:

1. Midland Firemen's Relief & Retirement Fund is in an industry that should experience milder fluctuations than the general economy. Midland Firemen's Relief & Retirement Fund believes it should be able to achieve above average growth during the next several years.
2. Midland Firemen's Relief & Retirement Fund's strong financial condition enables it to adopt a long-term investment perspective.
3. Demographic characteristics of participants suggest an above-average risk tolerance due to the younger-than-average work force.
4. Actuarial data related to future projected benefit payments, along with future projected expenses of the Plan, are significantly more than contributions received by the plan. Therefore, liquidity and income requirements are material over the next ten years, which the investment policy must consider.
5. Historically, the Plan assets have been accumulated to be at or slightly exceed the value of the Plan's total accrued benefit liability with a 30-year amortization period for the unfunded liability, allowing for a less aggressive risk profile. However, given the recent actuarial calculations, the Firemen and the City of Midland must work out a plan in terms of future contributions to the plan, and hiring the appropriate number of Firemen to the city as member of the Plan. This, and other actuary suggestions were made per the 2019 Actuarial Evaluation presented to the Fund.

In summary, Midland Firemen's Relief & Retirement Fund's prospects for the future, current financial condition, and several other factors, suggest collectively the Plan can tolerate some interim fluctuations in market value and rates of return in order to achieve long-term objectives.

Performance Objective

The desired investment objective is a long-term rate of return on assets that is at least 7.50%, which is 4.50% greater than the anticipated rate of inflation as measured by the Consumer Price Index (CPI) over the long term. The target rate of return for the Fund has been based upon the assumption that future real returns will approximate forward looking capital market assumptions provided by the Consultant for each asset class in the IPS. The board understands that variations to these capital market assumptions are expected and specific sectors or industries are more susceptible due to increased vulnerability to any single economic, political or regulatory development.

ASSET CLASS GUIDELINES

The Board believes long-term investment performance, in large part, is primarily a function of the mix of asset classes. History shows that while interest-generating investments, such as bond portfolios, have the advantage of relative stability of principal value, they provide little opportunity for real long-term capital growth due to their susceptibility to inflation. On the other hand, equity investments, such as common stocks, generally have a higher return potential but have the disadvantage of much greater year-by-year variability of return and potential for loss. From an investment decision-making point of view, this year-by-year variability may be worth accepting, provided the time horizon for the equity portion of the portfolio is sufficiently long (five years or greater). As a result, the following investments were selected in order to provide a diversified asset allocation.

Allowable Assets

1. Cash Equivalents
   - Treasury Bills
   - Money Market Funds
   - Commercial Paper
   - Banker's Acceptances
   - Repurchase Agreements
   - Certificates of Deposit
2. Fixed Income Securities
   - U.S. Government and Agency Securities
   - Corporate Notes and Bonds
   - Mortgage-Backed Bonds
   - Collateralized Mortgage Obligations
   - Mutual Funds
   - ETFs
3. Equity Securities
   - Common Stocks
   - American Depository Receipts (ADRs) of Non-U.S. Companies
   - Stocks of Non-U.S. Companies (Ordinary Shares) (If appropriate)
   - Mutual Funds
   - ETFs
4. Alternative Investments/Low Correlation Strategies
   - Real Assets
   - Real Estate

- Natural Resources, Energy, Timber
- Private Equity & Private Equity Fund of Funds
- Hedge Funds & Fund of Funds
- Managed Futures
- Commodities
- Specialty Fixed Income
  - Enhanced Fixed Income: High Yield, Convertibles, ABS
  - Fixed Income Securities of Foreign Governments and Corporations
  - Preferred securities
- Specialty Equity
  - Hedged Equity
  - Multi Strategy
  - Long/Short
  - Arbitrage

ASSET ALLOCATION GUIDELINES

The Board will ensure that investment management of the assets of the Plan shall be in accordance with the following asset allocation guidelines:
The Board will ensure that investment management of the assets of the Plan shall be in accordance with the following asset allocation guidelines:

1. Aggregate Plan Asset Allocation Guidelines (at market value)

Asset Class	Minimum Weighting	Maximum Weighting	Target Weighting
Equities	**30%**	**50%**	**40%**
Large Cap	10%	30%	10%
Mid Cap	5%	10%	5%
Small Cap	3%	10%	5%
International	15%	25%	20%
Fixed Income	**10%**	**30%**	**20%**
Short	5%	10%	5%
Intermediate	10%	20%	15%
Alternatives	**20%**	**35%**	**35%**
Cash & Equivalents	**1%**	**10%**	**5%**
Money Market	1%	10%	5%

2. The Board may employ investment managers whose investment disciplines require investment outside the established asset allocation guidelines. However, taken as a component of the aggregate Plan, such disciplines must fit within the overall asset allocation guidelines established in this statement.

Rebalancing

The Board and Consultant are expected to monitor the portfolio mix. Neither the upper nor the lower limits of the asset allocations are intended to require portfolio activity for the sole purpose of complying with the guidelines; however, deviation from these guidelines will be treated as discussion topics at the quarterly meetings with rebalancing considered at least annually. It is recommended that the target allocation be maintained so that the Plan will be able to achieve its long-term goals.

Diversification for Investment Managers

In order to achieve a prudent level of portfolio diversification, the securities of any one company or government agency should not exceed 10% of the total Fund, and no more than 20% of the total Fund should be invested in any one industry. With the exception of U.S. Government securities, no fixed income issue may exceed 15% of the market value of the fixed income portfolio.

Diversification for Alternative Investments

In order to achieve a prudent level of portfolio diversification, the investment of any one low correlation / alternative strategy should not exceed 10% of the total Fund.

Guidelines for Fixed Income Investments and Cash Equivalents

1. Total plan assets may be invested with a minimum 50% in investment grade bonds rated BBB or equivalent or better.
2. Plan assets may be invested only in commercial paper rated A1 or equivalent or better.
3. Money Market Funds selected shall contain securities whose credit rating at the absolute minimum would be rated investment grade by Standard and Poor's, and/or Moody's.

INVESTMENT MANAGER SELECTION

The Board selection of investment manager(s) must be based on prudent due diligence procedures. A qualifying investment manager must be a registered investment advisor under the Investment Advisers Act of 1940, or a bank or insurance company. The Board will apply the following due diligence criteria in selecting each investment manager.

1. *Regulatory oversight:* Each investment manager should be a regulated bank, an insurance company, a mutual fund organization, or a registered investment adviser.
2. *Correlation to style or peer group:* The product should be highly correlated to the asset class of the investment option. This is one of the most critical parts of the analysis since most of the remaining due diligence involves comparisons of the manager to the appropriate peer group.
3. *Performance relative to a peer group:* The product's performance should be evaluated against the peer group's median manager return, for 1-, 3- and 5-year cumulative periods.
4. *Performance relative to assumed risk:* The product's risk-adjusted performance (Alpha and/or Sharpe Ratio) should be evaluated against the peer group's median manager's risk-adjusted performance.
5. *Minimum track record:* The product's inception date should be greater than three years.
6. *Assets under management:* The product should have at least $75 million under management.
7. *Holdings consistent with style:* The screened product should have no more than 20% of the portfolio invested in "unrelated" asset class securities. For example, a Large-Cap Growth product should not hold more than 20% in cash, fixed income and/or international securities.
8. *Expense ratios/fees:* The product's fees are evaluated and considered given the proper risk/return attributes of each selected manager of their peer group. Expense ratios & fees are evaluated accordingly, and negotiated, when available, with each manager in order to best benefit the fund in terms of costs.
9. *Stability of the organization:* There should be no perceived organizational problems – the same portfolio management team should be in place for at least two years.

CONTROL PROCEDURES

Investment Manager Performance Review and Evaluation

The investment performance of total portfolios, as well as asset class components, will be measured by the Board, with the assistance of the Consultant against commonly accepted performance benchmarks. Consideration shall be given to the extent to which the investment results are consistent with the investment objectives, goals, and guidelines as set forth in this statement. The Board intends to evaluate the portfolio(s) over at least a three-year period, but reserves the right to terminate a manager for any reason including the following:

1. Investment performance which is significantly less than anticipated given the discipline employed and the risk parameters established, or unacceptable justification of poor results.
2. Failure to adhere to the terms and conditions of the investment management agreement.
3. Significant qualitative changes to the investment management organization.
4. Any legal, SEC and/or other regulatory agency proceedings affecting the manager.

Investment managers shall be reviewed by the Board regularly regarding performance, personnel, strategy, research capabilities, organizational and business matters, and other qualitative factors that may impact their ability to achieve the desired investment results.

The Board has determined it is in the best interest of the Plan that performance objectives be established for each investment manager. Investment Manager performance will be evaluated in terms of an appropriate market index (e.g. the S&P 500 stock index for large-cap domestic equity manager) and the relevant peer group (e.g. the large-cap growth mutual fund universe for a large-cap growth mutual fund).

	Asset Class	Index	Peer Group
Large Cap Equity	Blend	Russell 1000 / S&P 500	Large-Cap Blend
	Growth	Russell 1000	Large Cap Growth
	Value	Russell 1000 Value	Large- Cap Value
Mid- Cap Equity	Blend	Russell Midcap	Midcap Blend
	Growth	Russell Midcap Growth	Midcap Growth
	Value	Russell Midcap Value	Midcap Value
Small-Cap Equity	Blend	Russell 2000	Small-Cap Blend
	Growth	Russell 2000 Growth	Small-Cap Growth
	Value	Russell Midcap Value	Small-Cap Value
Multi-Caps	Blend	Russell 3000	Multi-Cap
International Equity	Developed	MSCI EAFE	Foreign Stock
	Emerging Markets	MSCI EM	Emerging Markets
Alternatives	Diversified Alternatives	HFRI Fund of Funds	Diversified Alternatives
Fixed Income	Short Bonds	Short Gov't/ Credit	Short Term Bond
	Intermediate-term Bond	Barclay Gov't/ Credit Intermediate/ Aggregate	Intermediate- Term Bond
	High Yield Bonds	LB High Yield BB	High Yield
Money Market	--	90 day T-Bills	Institutional Money Market

An Investment Manager may be placed on Watch and a thorough review and analysis of the investment manager may be conducted by the Board, when:

1. An Investment Manager performs below median for their peer group over a 1-, 3- and/or 5-year cumulative period.
2. An Investment Manager's 3-year risk adjusted return (Alpha and/or Sharpe) falls below the peer group's median risk adjusted return.
3. There is a change in the professionals managing the portfolio.
4. There is a significant decrease in the product's assets.
5. There is an indication the manager is deviating from his/her stated style and/or strategy.
6. There is an increase in the product's fees and expenses.
7. Any extraordinary event occurs that may interfere with the manager's ability to fulfill their role in the future.

Investment manager evaluation may include the following steps:

1. A letter to an investment manager asking for an analysis of their underperformance.
2. An analysis of recent transactions, holdings and portfolio characteristics to determine the cause for underperformance or to check for a change in style.
3. A meeting with the investment manager, which may be conducted on-site, to gain insight into organizational changes and any changes in strategy or discipline.

The decision to retain or terminate an investment manager cannot be made by a formula. It is the Board's confidence in the investment manager's ability to perform in the future that ultimately determines the retention of a manager.

Measuring Costs

The Board will review at least annually all costs associated with the management of the Plan's investment program, including (where applicable):

1. Expense fees of each investment option against the appropriate peer group.
2. Custody fees: The holding of the assets, collection of the income and disbursement of payments.
3. Whether the investment manager is demonstrating attention to "best execution" in trading securities.
4. Consulting & Administrative Fees: Costs of a consultant and administration of the Plan, including record keeping.

INVESTMENT POLICY REVIEW

The Board will review this IPS at least annually to determine whether stated investment objectives are still relevant and the continued feasibility of achieving the same. It is not expected that the IPS will change frequently. In particular, short-term changes in the financial markets should not require adjustments to the IPS.

This statement of investment policy is adopted on 10/25/2021 by the Board whose signatures appear below.

Board Trustees

Christy Wahland

October 25, 2021

Date

K: Comments from Midland Firemen's Relief and Retirement Fund and City of Midland

Midland Firemen's Relief and Retirement Fund
105 N. G, Suite 201, Midland, Texas 79701
432-704-5575

October 26, 2021

Robert Munter
Texas Pension Review Board
Investment Analyst
Email: Robert.munter@prb.texas.gov

Dear Mr. Munter:

Please accept this memo as a formal response to the preliminary draft of the Intensive Actuarial Review received from the Pension Review Board October 18, 2021. This response was approved by Midland Firemen's Relief and Retirement Fund Board of Trustees at the special board meeting October 25, 2021.

Midland Firemen's Relief and Retirement Fund Board of Trustees and the City of Midland are working together to identify and improve upon the issues that need to be addressed as specified in the PRB Review findings. The Board agrees that there are improvements to be made in various areas as identified in the PRB findings. Together, we are ready to move forward in these discussions to ensure that we are doing everything possible to restore the funding soundness and overall performance of the Plan and Board of Trustees.

Midland Firemen's Relief and Retirement Board of Trustees and the City of Midland will have representatives at the Pension Review Board Meeting, November 2, 2021.

Sincerely,

Brian McGary

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MIDLAND
Feel the Energy!

Office of the City Manager

October 25, 2021

Via Email: Robert.munter@prb.texas.gov
Robert Munter, CFA
Texas Pension Review Board
Investment Analyst
P.O. Box 13498
Austin, Texas 78711-3498

Re: *Preliminary Draft of Intensive Actuarial Review of the Midland Firemen's Relief and Retirement Fund*

Dear Mr. Munter,

Thank you for providing the City of Midland ("City") with a copy of the Texas Pension Review Board's ("PRB") preliminary draft of the intensive actuarial review (the "Preliminary Review") of the Midland Firemen's Relief and Retirement Fund (the "Midland Fire Fund"). Please allow this letter to serve as the City's response. As sponsor of the Midland Fire Fund, the City stands ready to continue to work with the Midland Fire Fund board of trustees to ensure the Midland Fire Fund is sustainable and sufficiently funded to provide benefits to Midland Fire Fund members.

The City is greatly concerned with the findings contained in the Preliminary Review. While the City notes that most of the findings are not related to the City's contribution to the Midland Fire Fund, I would like to specify certain actions the City has taken in the past in an effort to assist the Midland Fire Fund:

1. The City has worked to reduce overtime through staffing reorganization, over-hiring positions, and recruiting campaigns.
2. The City no longer makes one-time lump-sum merit payments to firefighters, but instead spreads the payment amounts over a period of either 6 or 12 months to help level peaks in pay.
3. In 2016, the City increased its contribution rate from 21.7% to 22.2%.
4. The City has offered to help pay for services from actuaries and consulting firms and the City continues to stand by that offer.

The City understands that in order to make the fund sustainable and affordable, the City and the Midland Fire Fund's board of trustees may have to increase contributions and/or reduce benefits in the future.

The City believes that an accurate reporting of the Midland Fire Fund's assets is imperative in order to move forward with an adequate funding plan. As stated above, the City will continue to offer to help the Midland Fire Fund retain and pay for required services from actuaries and consulting firms, including assistance with paying for a forensic audit as well as necessary policy and investment consultants.

The City of Midland is committed to our firefighters, and as sponsor of the Midland Firemen's Relief and Retirement Fund, the City has a great interest in the stability of the fund. The City is intent on working with the Midland Fire Fund to achieve a solution and is hopeful that this can be done with promptness and prudence.

Sincerely,

Robert Patrick

Robert Patrick
City Manager, City of Midland