The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at 8:30 a.m. on Thursday, January 10, 2019, in the Second Floor Board Room at 4100 Harry Hines Boulevard, Dallas, Texas. Items of the following agenda will be presented to the Board:

A. MOMENT OF SILENCE

B. CONSENT AGENDA

1. Approval of Minutes

   Regular meeting of December 13, 2018

2. Approval of Refunds of Contributions for the Month of December 2018
3. Approval of Activity in the Deferred Retirement Option Plan (DROP) for January 2019

4. Approval of Estate Settlements

5. Approval of Survivor Benefits

6. Approval of Service Retirements

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. 2019 Board Calendar


3. Trustee Election Procedures

4. City of Dallas Health Savings Account Deductions

5. Board approval of Trustee education and travel
   a. Future Education and Business-related Travel
   b. Future Investment-related Travel
6. Investment Policy Statement

7. Investment Advisory Committee

   Portions of the discussion under this topic may be closed to the public under the terms of Section 551.074 of the Texas Government Code.

8. Lone Star Investment Advisors Update

9. Portfolio Update

10. Private Asset Cash Flow Projection Update

   Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

11. Real Estate Overview

   Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.
12. Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation, or any other legal matter in which the duty of the attorneys to DPFP and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.

D. BRIEFING ITEMS

1. Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System

2. Executive Director’s report
   a. Open Records Requests
   b. Pension Obligation Bond Funding Exploration

The term “possible action” in the wording of any Agenda item contained herein serves as notice that the Board may, as permitted by the Texas Government Code, Section 551, in its discretion, dispose of any item by any action in the following non-exclusive list: approval, disapproval, deferral, table, take no action, and receive and file. At the discretion of the Board, items on this agenda may be considered at times other than in the order indicated in this agenda.

At any point during the consideration of the above items, the Board may go into Closed Executive Session as per Texas Government Code, Section 551.071 for consultation with attorneys, Section 551.072 for real estate matters, Section 551.074 for personnel matters, and Section 551.078 for review of medical records.
ITEM #A

MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

(November 25, 2018 – December 31, 2018)

<table>
<thead>
<tr>
<th>NAME</th>
<th>ACTIVE/ RETIRED</th>
<th>DEPARTMENT</th>
<th>DATE OF DEATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>William L. Cannaday</td>
<td>Retired</td>
<td>Police</td>
<td>Dec 20, 2018</td>
</tr>
<tr>
<td>Stephen B. Swafford</td>
<td>Retired</td>
<td>Police</td>
<td>Dec 28, 2018</td>
</tr>
<tr>
<td>Lawrence B. Harris</td>
<td>Retired</td>
<td>Police</td>
<td>Dec 31, 2018</td>
</tr>
</tbody>
</table>

Regular Board Meeting – Thursday, January 10, 2019
Dallas Police and Fire Pension System  
Thursday, December 13, 2018  
8:30 a.m.  
4100 Harry Hines Blvd., Suite 100  
Second Floor Board Room  
Dallas, TX

Regular meeting, William F. Quinn, Chairman, presiding:

**ROLL CALL**

**Board Members**

Present at 8:30 a.m.  William F. Quinn, Nicholas A. Merrick, Samuel L. Friar, Blaine Dickens (by telephone), Ray Nixon, Gilbert A. Garcia, Tina Hernandez Patterson, Robert C. Walters, Joseph P. Schutz, Kneeland Youngblood

Present at 8:32 a.m.  Frederick E. Rowe

Absent:  None

**Staff**  
Kelly Gottschalk, Josh Mond, Kent Custer, Brenda Barnes, John Holt, Damion Hervey, Cynthia Thomas, Ryan Wagner, Greg Irlbeck, Carol Huffman

**Others**  
Leandro Festino, Aaron Lally, Neal T. "Buddy" Jones, R. Clint Smith, Sara Stinnett, Janis C. Elliston, David Elliston, James Freeman, Larry Williams, Kenneth Sprecher, Darryl Wachsman, Zaman Hemani

* * * * * *

The meeting was called to order at 8:30 a.m.

* * * * * *

A. MOMENT OF SILENCE

The Board observed a moment of silence in memory of retired police officers Johnny W. Corum, Marvin L. Wise, active firefighter David W. Walters, and retired firefighters E. L. Swindle, Dick B. Franklin, W. O. Hare, J. L. Lybrand.

No motion was made.

* * * * * *
B. CONSENT AGENDA

1. Approval of Minutes

   Regular meeting of November 8, 2018

2. Approval of Refunds of Contributions for the Month of November 2018

3. Approval of Survivor Benefits

4. Approval of Service Retirements

5. Approval of Alternate Payee Benefits

6. Spouse Wed After Retirement (SWAR)

7. Approval of Payment of Military Leave Contributions

After discussion, Mr. Youngblood made a motion to approve the minutes of the meeting of November 8, 2018. Mr. Garcia seconded the motion, which was unanimously approved by the Board. Ms. Hernandez Patterson, Mr. Nixon, and Mr. Rowe were not present for the vote.

After discussion, Mr. Garcia made a motion to approve the remaining items on the Consent Agenda, subject to the final approval of the staff. Mr. Friar seconded the motion, which was unanimously approved by the Board. Mr. Rowe was not present for the vote.

* * * * * * *

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. Emerging Markets Debt

   a. Emerging Markets Debt Education Session
   b. Emerging Markets Debt Funding

   Leandro Festino, Managing Principal and Aaron Lally, Executive Vice President both with Meketa Investment Group provided education regarding the Emerging Markets Debt asset class and its role in the DPFP asset allocation.
1. Emerging Markets Debt (continued)

Staff discussed funding expectations for Emerging Markets Debt. Based on preliminary asset values as of 11/30/18 Staff anticipates an eventual contribution of $62 million to the Ashmore Emerging Markets Blended Debt Fund, to be sourced from future private market distributions in accordance with the Asset Allocation Implementation Plan.

After discussion, Mr. Quinn made a motion to approve funding the Emerging Markets Debt asset class subject to modifying the Asset Allocation Implementation plan such that Global Equity is funded prior to funding Emerging Markets Debt. Mr. Garcia seconded the motion, which was unanimously approved by the Board.

* * * * * * *

2. Passive Investment Grade Bond Recommendation

Leandro Festino, Managing Principal and Aaron Lally, Executive Vice President both with Meketa Investment Group and Kent Custer, DPFP Chief Investment Officer, discussed the Strategic Asset Allocation approved by the Board on October 10, 2018 including a new 4% allocation to Investment Grade Bonds.

When Staff and Consultant presented the Asset Allocation Implementation Plan at the November 8, 2018 meeting of the Board, Staff stated its intention to recommend an interim passive solution for investment grade bonds. The approval of the implementation plan included a provision that a search for an active manager for investment grade bonds be conducted within twelve months.

Meketa recommends using the Vanguard Total Bond Market Index Institutional Mutual Fund (ticker: VBTIX). This is the largest and lowest-cost investment grade bond index mutual fund available to institutional investors. Staff concurs with this recommendation.

Staff anticipates eventual purchases of approximately $62 million of VBTIX to be sourced from future private market distributions in accordance with the Asset Allocation Implementation Plan. Based on the characteristics outlined in Appendix D of the Investment Policy Statement, Alternative Investments, Staff and Consultant categorize VBTIX as a Traditional Investment.
2. Passive Investment Grade Bond Recommendation (continued)

After discussion, Mr. Garcia made a motion to approve the Vanguard Total Bond Market Index Institutional Mutual Fund as an interim solution for the Investment Grade Bond asset class. Ms. Hernandez Patterson seconded the motion, which was unanimously approved by the Board.

* * * * * * *

3. Investment Policy Statement

Investment Staff and Meketa completed a comprehensive review of the Investment Policy Statement (IPS) and proposed numerous changes to incorporate best practices and improve clarity and structure. Meketa provided a presentation discussing the proposed benchmark changes and identifying proposed rebalancing ranges.

The Board reviewed and discussed the recommended changes to the Investment Policy Statement and directed staff to make additional changes to be presented to the Board at the January Board meeting.

No motion was made.

* * * * * * *


Leandro Festino, Managing Principal and Aaron Lally, Executive Vice President both with Meketa Investment Group and the Investment Staff reviewed the investment performance.

No motion was made.

* * * * * * *

5. Portfolio Update

Investment Staff briefed the Board on recent events and current developments with respect to the investment portfolio.

No motion was made.
Regular Board Meeting  
Thursday, December 13, 2018

* * * * *

6. 86th Legislative Session Preview

Neal T. "Buddy" Jones, and R. Clint Smith, representatives from HillCo Partners, DPFP’s legislative consultants, were present to discuss the 2018 election results and a look forward to 2019 legislative issues.

No motion was made.

* * * * *

Mr. Merrick left the meeting at 10:45 a.m.

* * * * *

7. Monthly Contribution Report

The Board discussed the monthly contribution report that was developed to track City and Member contributions.

No motion was made.

* * * * *

Mr. Dickens was present at the meeting at 10:57 a.m.

* * * * *

8. Amendment to Deferred Retirement Option Plan (DROP) Policy

Staff is proposing a change to deal with DPFP’s obligations to beneficiaries in the situation where a person receiving a DROP annuity passes away and DPFP is not notified of the occurrence.

After discussion, Mr. Youngblood made a motion to approve the DROP Policy as amended. Mr. Friar seconded the motion, which was unanimously approved by the Board.

* * * * *
Regular Board Meeting
Thursday, December 13, 2018

9. 2019 Budget

The Board approved the 2019 budget at the November Board meeting. Comments from the City were received after the November meeting. Staff reported the comments from the City regarding the 2019 budget.

No motion was made.

* * * * * * *

10. Trustee meeting with City

At the Board meeting on November 8, 2018, the Board authorized two member elected Trustees and two Trustees appointed by the Mayor to meet with DPFP and City staff to discuss concerns the Board has regarding future police and fire staffing levels affecting DPFP. The Chairman requested a reconsideration of the Board’s previous motion.

After discussion, Mr. Walters made a motion to amend the Board’s motion of November 8, 2018 and authorized the Chairman to appoint a subcommittee of Trustees for such meetings. Mr. Nixon seconded the motion, which was unanimously approved by the Board.

* * * * * * *

11. Professional Services Provider Report

According to the Committee Policy and Procedure, the Professional Services Committee is responsible for meeting privately with the external service providers, without DPFP staff present, at minimum on an annual basis. The purpose of such a meeting is to provide a forum for the service provider to provide candid comments to the Professional Services Committee.

The Professional Service Committee reported to the Board on its meeting with Meketa Investment Group, prior to the December Board meeting, indicating that no issues of concern were raised.

No motion was made.

* * * * * * *
12. **Open Records Requests**

Staff provided information related to open records requests, including the administrative process of handling the requests and open records request data for 2017 and 2018.

No motion was made.

* * * * * * *

13. **Board approval of Trustee education and travel**

   a. Future Education and Business-related Travel
   b. Future Investment-related Travel

The Board and staff discussed approval of future education and business-related travel. There was no future investment-related travel.

After discussion, Mr. Youngblood made a motion to approve Mr. Dickens’ and Mr. Friar’s requested to attend the TEXPERS Annual Conference. Mr. Walters seconded the motion, which was unanimously approved by the Board.

* * * * * * *

14. **Investment Advisory Committee**

The Board discussed locating possible candidates to serve on the Investment Advisory Committee and considered modifying the structure of the IAC to accommodate potential future vacancies.

No motion was made.

* * * * * * *

Mr. Garcia left the meeting at 11:47 a.m.

* * * * * * *
15. **Lone Star Investment Advisors Update**

Sara Stinnett with DLA Piper and the Investment Staff updated the Board on recent performance and operational developments with respect to DPFP investments in funds managed by Lone Star Investment Advisors and counsel briefed the Board on legal issues.

The Board went into a closed executive session – Legal issues at 11:58 a.m.

The meeting was reopened at 1:03 p.m.

No motion was made.

* * * * * * *

16. **Hardship Request**

The Executive Director reviewed the Hardship application and materials with the Board.

After discussion, Mr. Youngblood made a motion to deny a hardship request. Mr. Nixon seconded the motion, which was unanimously approved by the Board.

* * * * * * *

17. **Consideration of Granting a Survivor Benefit under the Disabled Child Benefit Provisions**

Staff presented an application for Survivor Benefit under the Disabled Child Benefit Provisions of the Plan Section 6.06(o-2).

After discussion, Ms. Hernandez Patterson made a motion to grant survivor benefits under the provisions of Plan Section 6.06(o-2). Mr. Youngblood seconded the motion, which was unanimously approved by the Board.

* * * * * * *
Regular Board Meeting
Thursday, December 13, 2018

18. Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation, or any other legal matter in which the duty of the attorneys to DPFP and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.

The Board went into a closed executive session – legal at 11:58 p.m.

The meeting was reopened at 1:03 p.m.

* * * * * * *

Mr. Merrick returned to the Board meeting at 12:39 p.m.

* * * * * * *

No motion was made.

* * * * * * *

19. Executive Director Compensation

The Board reviewed the performance of the Executive Director at the November 8th Board meeting, at that time the Board did not take any action related to compensation.

After discussion, Mr. Walters made a motion to approve a 5% increase in the Executive Director’s compensation. Ms. Hernandez Patterson seconded the motion, which was unanimously approved by the Board.

* * * * * * *

D. BRIEFING ITEMS

1. Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System

The Board received members’ comments during the open forum. No motion was made.
2. Executive Director’s report

   a. Associations’ newsletters
      • NCPERS Monitor (November 2018)
      • NCPERS Monitor (December 2018)
   b. City of Dallas Actuarial Audit (Government Code, Sec. 802.1012)
   c. Employee Service Award

   The Executive Director’s report was presented. No motion was made.

   * * * * * *

Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Youngblood and a second by Mr. Friar, the meeting was adjourned at 1:03 p.m.

_____________________
William F. Quinn
Chairman

ATTEST:

_____________________
Kelly Gottschalk
Secretary
DISCUSSION SHEET

ITEM #C1

Topic: 2019 Board Calendar

Discussion: Staff will present a proposed 2019 Board meeting calendar.

Staff
Recommendation: Approve the 2019 Board meeting calendar.
## 2019 BOARD MEETING DATES

<table>
<thead>
<tr>
<th>Date</th>
<th>Starting Time</th>
<th>Type of Meeting</th>
<th>Posting/Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 14</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Feb. 8</td>
</tr>
<tr>
<td>Mar. 14</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Mar. 8</td>
</tr>
<tr>
<td>Apr. 11</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Apr. 5</td>
</tr>
<tr>
<td>May 9</td>
<td>8:30 AM</td>
<td>Regular and Required Public Meeting</td>
<td>May 3</td>
</tr>
<tr>
<td>Jun. 13</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Jun. 7</td>
</tr>
<tr>
<td>Jul. 11</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Jul. 5</td>
</tr>
<tr>
<td>Aug. 8</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Aug. 2</td>
</tr>
<tr>
<td>Sep. 12</td>
<td>8:30 AM</td>
<td>Regular and Required Public Meeting</td>
<td>Sep. 6</td>
</tr>
<tr>
<td>Oct. 10</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Oct. 4</td>
</tr>
<tr>
<td>Nov. 14</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Nov. 8</td>
</tr>
<tr>
<td>Dec. 12</td>
<td>8:30 AM</td>
<td>Regular</td>
<td>Dec. 6</td>
</tr>
</tbody>
</table>

Board meetings normally are held on the second Thursday of the month in the Second Floor Board Room, 4100 Harry Hines Blvd., Dallas.
DISCUSSION SHEET

ITEM #C2

Topic: Monthly Contribution Report

Discussion: Staff will review the Monthly Contribution Report.
Actual Comp Pay was 95% of the Hiring Plan estimate since the effective date of HB 3158.

In the most recent month Actual Comp Pay was 98% of the Hiring Plan estimate.

The Hiring Plan Comp Pay estimate increases by 5.22% in 2019.

Through 2024 the HB 3158 Floor is in place so there is no City Contribution shortfall.

Since the effective date of HB 3158 actual employee contributions have been $3.1 million less than the Hiring Plan estimate.

There is no Floor on employee contributions.
## Contribution Summary Data

### City Contributions

<table>
<thead>
<tr>
<th></th>
<th>Nov-18</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Pay Periods Beginning in the Month</td>
<td>HB 3158 Floor</td>
<td>City Hiring Plan</td>
<td>Actual Contributions Based on Comp Pay</td>
<td>Additional Contributions to Meet Floor Minimum</td>
<td>Comp Pay Contributions as a % of Floor Contributions</td>
<td>Comp Pay Contributions as a % of Hiring Plan Contributions</td>
</tr>
<tr>
<td>Month</td>
<td>2</td>
<td>$10,688,000</td>
<td>$9,660,000</td>
<td>$9,434,909</td>
<td>$1,253,091</td>
<td>88%</td>
<td>98%</td>
</tr>
<tr>
<td>Year-to-Date</td>
<td></td>
<td>$128,256,000</td>
<td>$115,920,000</td>
<td>$111,142,236</td>
<td>$17,113,764</td>
<td>87%</td>
<td>96%</td>
</tr>
<tr>
<td>HB 3158 Effective Date</td>
<td>$174,813,000</td>
<td>$160,345,385</td>
<td>$152,312,941</td>
<td>$22,500,059</td>
<td>87%</td>
<td>95%</td>
<td></td>
</tr>
</tbody>
</table>

*Due to the Floor through 2024, there is no cumulative shortfall in City Contributions*

*Does not include the flat $13 million annual City Contribution payable through 2024.*

*Does not include Supplemental Plan Contributions.*

### Employee Contributions

<table>
<thead>
<tr>
<th></th>
<th>Nov-18</th>
<th></th>
<th></th>
<th>Actual Employee Contributions Based on Comp Pay</th>
<th>Actual Contribution Shortfall Compared to Hiring Plan</th>
<th>Actuarial Valuation Contribution Assumption</th>
<th>Actual Contributions as a % of Hiring Plan Contributions</th>
<th>Actual Contributions as a % of Actuarial Val Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Pay Periods Beginning in the Month</td>
<td>City Hiring Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Month</td>
<td>2</td>
<td>$3,780,000</td>
<td>$3,699,509</td>
<td>(80,491)</td>
<td>$3,593,458</td>
<td>98%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Year-to-Date</td>
<td></td>
<td>$45,360,000</td>
<td>$43,493,289</td>
<td>(1,866,711)</td>
<td>$43,121,496</td>
<td>96%</td>
<td>101%</td>
<td></td>
</tr>
<tr>
<td>HB 3158 Effective Date</td>
<td>$62,743,846</td>
<td>$59,594,248</td>
<td>(3,149,598)</td>
<td>$60,505,338</td>
<td></td>
<td>95%</td>
<td>98%</td>
<td></td>
</tr>
</tbody>
</table>

*Does not include Supplemental Plan Contributions.*
## Reference Information

### City Contributions: HB 3158 Bi-weekly Floor and the City Hiring Plan Converted to Bi-weekly Contributions

<table>
<thead>
<tr>
<th>Year</th>
<th>HB 3158 Bi-weekly Floor</th>
<th>City Hiring Plan Bi-weekly</th>
<th>HB 3158 Floor Compared to the Hiring Plan</th>
<th>Hiring Plan as a % of the Floor</th>
<th>% Increase/ (decrease) in the Floor</th>
<th>% Increase/ (decrease) in the Hiring Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$5,173,000</td>
<td>$4,936,154</td>
<td>$236,846</td>
<td>95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>$5,344,000</td>
<td>$4,830,000</td>
<td>$514,000</td>
<td>90%</td>
<td>3.31%</td>
<td>-2.15%</td>
</tr>
<tr>
<td>2019</td>
<td>$5,571,000</td>
<td>$5,082,115</td>
<td>$488,885</td>
<td>91%</td>
<td>4.25%</td>
<td>5.22%</td>
</tr>
<tr>
<td>2020</td>
<td>$5,724,000</td>
<td>$5,254,615</td>
<td>$469,385</td>
<td>92%</td>
<td>2.75%</td>
<td>3.39%</td>
</tr>
<tr>
<td>2021</td>
<td>$5,882,000</td>
<td>$5,413,846</td>
<td>$468,154</td>
<td>92%</td>
<td>2.76%</td>
<td>3.03%</td>
</tr>
<tr>
<td>2022</td>
<td>$6,043,000</td>
<td>$5,599,615</td>
<td>$443,385</td>
<td>93%</td>
<td>2.74%</td>
<td>3.43%</td>
</tr>
<tr>
<td>2023</td>
<td>$5,812,000</td>
<td>$5,811,923</td>
<td>$77</td>
<td>100%</td>
<td>-3.82%</td>
<td>3.79%</td>
</tr>
<tr>
<td>2024</td>
<td>$6,024,000</td>
<td>$6,024,231</td>
<td>(231)</td>
<td>100%</td>
<td>3.65%</td>
<td>3.65%</td>
</tr>
</tbody>
</table>

The HB 3158 Bi-weekly Floor ends after 2024

### Employee Contributions: City Hiring Plan and Actuarial Val. Converted to Bi-weekly Contributions

<table>
<thead>
<tr>
<th>Year</th>
<th>City Hiring Plan Converted to Bi-weekly Employee Contributions</th>
<th>Actuarial Valuation Assumption Converted to Bi-weekly Employee Contributions</th>
<th>Actuarial Valuation as a % of Hiring Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$1,931,538</td>
<td>$1,931,538</td>
<td>100%</td>
</tr>
<tr>
<td>2018</td>
<td>$1,890,000</td>
<td>$1,796,729</td>
<td>95%</td>
</tr>
<tr>
<td>2019</td>
<td>$1,988,654</td>
<td>$1,846,139</td>
<td>93%</td>
</tr>
<tr>
<td>2020</td>
<td>$2,056,154</td>
<td>$2,056,154</td>
<td>100%</td>
</tr>
<tr>
<td>2021</td>
<td>$2,118,462</td>
<td>$2,118,462</td>
<td>100%</td>
</tr>
<tr>
<td>2022</td>
<td>$2,191,154</td>
<td>$2,191,154</td>
<td>100%</td>
</tr>
<tr>
<td>2023</td>
<td>$2,274,231</td>
<td>$2,274,231</td>
<td>100%</td>
</tr>
<tr>
<td>2024</td>
<td>$2,357,308</td>
<td>$2,357,308</td>
<td>100%</td>
</tr>
</tbody>
</table>

The information on this page is for reference. The only numbers on this page that may change before 2025 are the Actuarial Valuation Employee Contributions Assumptions for the years 2019-2024 and the associated percentage.
### Actuarial/GASB Contribution Assumption Changes Since the Passage of HB 3158

<table>
<thead>
<tr>
<th>Ye 2017 (1/1/2018 Valuation)</th>
<th>Actuarial Valuation</th>
<th>GASB 67/68</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Employee Contributions Assumption - based on 2017 actual plus growth rate not the Hiring Plan Payroll</td>
<td>$2,425,047</td>
<td>*</td>
</tr>
</tbody>
</table>

*90% of Hiring Plan was used for the Cash Flow Projection for future years in the 12/31/2017 GASB 67/68 calculation. At 12-31-17 this did not impact the pension liability or the funded percentage.

The information on this page is for reference. It is intended to document contribution related assumptions used to prepare the Actuarial Valuation and changes to those assumptions over time, including the dollar impact of the changes. Contribution changes impacting the GASB 67/68 liability will also be included.
<table>
<thead>
<tr>
<th>Year</th>
<th>Hiring Plan</th>
<th>Actual</th>
<th>Difference</th>
<th>Hiring Plan</th>
<th>Actual EOY</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$392,000,000</td>
<td>Not Available</td>
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DISCUSSION SHEET

ITEM #C3

Topic: Trustee Election Procedures

Discussion: Section 3.01(f) of Article 6243a-1 requires that the Board adopt rules for the election of Trustees. The policy has been rewritten to reflect the changes in Article 6243a-1 and as well as changes in technology.

Staff Recommendation: Adopt the Trustee Election Procedures as amended.
TRUSTEE ELECTION PROCEDURES

As Amended Through January 10, 2019
DALLAS POLICE AND FIRE PENSION SYSTEM

TRUSTEE ELECTION PROCEDURES

Adopted January 9, 1997
As amended through January 10, 2019

A. Purpose

These procedures provide rules governing the election of Trustees of the Dallas Police and Fire Pension Board (the “Board”). Pursuant to Section 3.01(f) of Article 6243a-1 of the Texas Revised Civil Statutes (“6243a-1”), the Board shall adopt rules that govern Trustee elections. All references in these procedures to sections numbers are to sections of 6243a-1. These procedures apply to the election of Trustees under Section 3.01(b)(2), (3) and (4). These procedures do not apply to the six trustees appointed by the Mayor of the City of Dallas under Section 3.01(b)(1).

B. Definitions

(Capitalized terms not defined here have the definition set out in Article 6243a-1.)

Fire Fighter Trustee: One trustee that is a current or former Fire Fighter.

Members: Police Officers or Fire Fighters in Active Service.

Non-Member Trustee: Three trustees who cannot be a Member, Pensioner, a current City employee, a person who was formerly a City employee and who has been separated from the City for less than two years prior to becoming a Trustee or a currently elected City official.

Nominations Committee: A committee with voting representation from the organizations named in Section 3.011(b)(2) responsible for vetting, selecting and nominating Non-Member Trustee candidates.

Pensioners: A former Police Officer or Fire Fighter who is either on a service or disability retirement.

Police Officer Trustee: One trustee that is a current or former Police Officer

C. Eligible voters in a Trustee Election

1. All Members in Active Service are eligible to vote for Non-Member Trustees and the Police Officer Trustee or Fire Fighter Trustee that corresponds with their role as either a Police Officer or Fire Fighter.

2. Pensioners are eligible to vote only for Non-member Trustees.
D. Eligibility to Serve as a Trustee:

1. Pursuant to Section 3.01(b-1) all Trustees must have demonstrated financial, accounting, business, investment, budgeting, real estate, or actuarial expertise.

2. There is no residency requirement for Trustees.

E. Indication of Candidate Interest to serve as a Trustee

Candidates interested in serving as a Police Officer Trustee, Fire Fighter Trustee or Non-Member Trustee will indicate their interest by completing and submitting a trustee application packet to the Executive Director in the form prescribed by the Executive Director no later than the established application deadline for the specific election. Applications of interest will not be carried over from a prior election.

F. Number of Candidates on the Ballot and Election Requirements for the Police Officer and Fire Fighter Trustees

All Police Officer Trustee and Fire Fighter Trustee candidates deemed qualified by the Board will be placed on the ballot in elections when the Police Officer Trustee and/or Fire Fighter Trustee position is being elected. To be elected a Police Officer Trustee or Fire Fighter Trustee a candidate must receive more than 50% of the votes cast. If no candidate earns more than 50% of the votes cast, a runoff election will be held involving the two candidates receiving the highest number of votes. If there is only one qualified candidate for the Police Officer Trustee or Fire Fighter Trustee positions, then the Board shall be authorized to declare that the sole qualified candidate as the person selected for such Trustee position and no further electoral action is required.

G. Number of Candidates on the Ballot and Election Requirements for Non-Member Trustees

1. The Nominations Committee will vet, select and nominate one candidate for each open Non-Member Trustee position. If the Board determines that there are no qualified Police Officer Trustee or Fire Fighter Trustee candidates the Nominations Committee will vet, select and nominate a Non-Member Trustee to fill the position.

2. Members and Pensioners will vote YES or NO for each candidate placed on the ballot. Each of the candidates will be voted on individually as either a YES or NO vote. To be elected, the candidate must individually receive more YES votes than NO votes. The election will be repeated for individual candidates, if necessary, until the required number of candidates have individually received a majority of YES votes.
G. **Number of Candidates on the Ballot and Election Requirements for Non-Member Trustees (continued)**

3. Prior to amending any provision of this subsection G, the Board will consult the Nominations Committee for input on any proposed amendment.

H. **Trustee Terms and Term Limits**

The Police Officer Trustee and Fire Fighter Trustee serve three-year terms with no term limits. Non-member Trustees serve two-year terms. The Nominations Committee may alter the two-year and three-year terms for the Police Officer Trustee and Fire Fighters Trustee terms and Non-Member Trustee terms prior to an election. In no event may any Non-Member Trustee serve more than six consecutive years.

I. **Trustee vacancies**

A Trustee vacancy occurring with nine months or more remaining on the Trustee’s term will be filled in the same manner as the process for electing the respective Police Officer Trustee and Fire Fighter Trustee or Non-Member Trustee. The elected trustee will fill the remaining term that was vacated. A Trustee vacancy occurring with less than nine months remaining in the term will remain unfilled until the regular election cycle.

J. **Scheduling and Conducting the Election**

1. The Executive Director will coordinate the election process and perform the necessary activities related to conducting the election in conformity with the requirements of 6243a-1, including but not limited to the following:

   • Inform the Board of the Trustee of Trustee terms expiring no later than April 15th each year.
   • Develop an election schedule for approval by the Board. The schedule must include a minimum of two months for the Nominations Committee to seek candidate interests, vet, select and nominate Non-Member Trustees if Non-Member Trustees terms are being elected.
   • Inform Members and Pensioners of upcoming Trustee elections including the schedule of the election, the Trustee positions up for election, the requirements to serve as a Trustee and instructions on how to submit a candidate interest application.
   • Make the Trustee Election Procedures available to Members and Pensioners.
J. Scheduling and Conducting the Election (continued)

- Accept applications and provide information to the Board or the Nominations Committee as applicable.
- Coordinate the Nominations Committee schedule, meetings and process of vetting, selecting and nominating Non-Member Trustee candidates.
- Coordinate with the Board to determine if the Police Officer and Fire Fighter Trustee candidates meet the minimum qualifications to serve as a Trustee.

2. The Executive Director will contract with an independent professional election management company to conduct the Trustee election in accordance with the generally accepted principles of elections and secret balloting.

3. The Executive Director will inform the Board, Nominations Committee, Members and Pensioners of the results of the Trustee elections. Communication to all such parties can be made via email and postings to the DPFP website.

APPROVED on January 10, 2019 the Board of Trustees of the Dallas Police and Fire Pension System.

________________________
William Quinn
Chairman

Attested:

________________________
Kelly Gottschalk
Secretary
DISCUSSION SHEET

ITEM #C4

Topic: City of Dallas Health Savings Account Deductions

Discussion:
The City of Dallas offered retirees the opportunity to have a Health Savings Account (HSA) and the City communicated that contributions to the HSA would be made through deductions from the retiree’s monthly pension direct deposit.

Article 6243a-1 Section 8.03(c)(5) allows deductions for health care or life insurance or similar payments from the monthly benefit payment. Staff believes the Board has the discretion to allow HSA deductions to be made from monthly benefit payments.

Staff has been working with the City of Dallas to understand the implications for DPFP staff and retirees and the cost of performing this function. Based on our current understanding, the impact to DPFP staff and the cost of adding the additional post-tax deduction for the HSA is currently expected to be minimal. All impacts to the retirees will be addressed by the City of Dallas.

Staff Recommendation: Allow Health Savings Account contributions to be deducted on an after-tax basis from monthly benefit payments.
DISCUSSION SHEET

ITEM #C5

Topic: Board approval of Trustee education and travel

a. Future Education and Business-related Travel
b. Future Investment-related Travel

Discussion:

a. Per the Education and Travel Policy and Procedure, planned Trustee education and business-related travel and education which does not involve travel requires Board approval prior to attendance.

Attached is a listing of requested future education and travel noting approval status.

b. Per the Investment Policy Statement, planned Trustee travel related to investment monitoring, and in exceptional cases due diligence, requires Board approval prior to attendance.

There is no future investment-related travel for Trustees at this time.
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<th>Dates:</th>
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<th>Est. Cost:</th>
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<td>Austin, TX</td>
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<td>2</td>
<td>NCPERS Accredited Fiduciary Program</td>
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<td>3</td>
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<td>4</td>
<td>TEXPERS Summer Educational Forum</td>
<td>August 11-13, 2019</td>
<td>El Paso, TX</td>
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Topic: Investment Policy Statement

Discussion: Investment Staff and Meketa presented recommended changes to the Investment Policy Statement at the December 13, 2018 meeting of the Board. Staff will present a new draft of the Investment Policy Statement incorporating the Board’s comments and requested changes.

Staff Recommendation: Approve the Investment Policy Statement as amended.
A review of the Investment Policy Statement (IPS) is required annually by the IPS and was identified as a high priority (level one) in the Initial Fund Review conducted by Meketa. DPFP Investment Staff and Meketa presented recommended changes to the IPS at the December 13, 2018 meeting of the Board. Staff has incorporated Board feedback in a new draft recommended for approval at the January 10, 2019 meeting of the Board. This memo highlights key changes from the prior draft (12/13/18). Smooth and redline IPS drafts are provided for reference.

- **Section 1.D** – Removed taxes and added global economic growth as factors that will affect expected return and risk.
- **Section 5.B.1** – Investment Advisory Committee (IAC)
  d. increased maximum size of the IAC to six from five to promote continuity upon the loss of an external member.
  g. Added provision for reasonable notice
  h. Revised language to ensure the Chair of the IAC is a member of the Board.
- **Section 5.F.2** – Commingled Fund Investment Managers
  c. Changed language to allow valuation based on liquid markets
  e. Added provision to clarify that mutual funds subject to the Investment Company Act of 1940 meet the requirements of this subsection 2.
- **Section 6.C.7** – Changed language to require reporting rebalancing recommendations and activity to the Board and the IAC.
- **Section 6.D.5** – Added language to clarify that private asset sales may be considered at less than the current net asset value of the asset reported to the Board.
- **Section 7.A.6.c** – Changed information generally required with a hiring recommendation to include historical performance and future expectations.
- **Appendix B1** – Switched the order of reallocation to place Global Equity before Emerging Markets Debt.
INVESTMENT POLICY STATEMENT

Amended as of December 13, 2018 | January 10, 2019
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Section 1  Introduction and Purpose

This policy statement shall guide investment of the assets of the Dallas Police and Fire Pension System (DPFP). This investment policy statement (IPS) is issued for the guidance of the Dallas Police and Fire Pension System Board of Trustees (Board), Investment Advisory Committee (IAC), Executive Director, Staff, Consultant(s), Custodian, and Investment Managers. This IPS is intended to set forth an appropriate set of goals and objectives for DPFP. It will define guidelines to assist fiduciaries and Staff in the supervision of the investments of DPFP. The investment program processes and procedures are defined in the various sections of the IPS by:

A. Stating in a written document DPFP’s expectations, objectives and guidelines for the investment of assets;

B. Setting forth an investment structure for managing the portfolio. This structure includes assigning various asset classes, investment management styles, asset allocation and acceptable ranges that, in total, are expected to produce an appropriate level of overall diversification and total investment return over the investment time horizon;

C. Encouraging effective communications between the Board, IAC, Executive Director, Staff, Consultant(s), Investment Managers and Custodian(s);

D. Setting forth policy that will consider various factors, including inflation, economic growth, taxes, global economic growth, liquidity and expenses, that will affect the portfolio’s short and long-term total expected returns and risk;

E. Establishing criteria to select and evaluate Investment Managers; and

F. Complying with applicable fiduciary and due diligence requirements experienced investment professionals would utilize, and with laws, rules and regulations applicable to DPFP.

Section 2  Goals, Objectives, and Constraints

A. Goals

1. Ensure funds are available to meet current and future obligations of the plan when due.
2. Earn a long-term, net of fees, investment return greater than the actuarial return assumption.
3. Rank in the top half of the public fund universe over the rolling five-year period, net of fees.

B. Objectives

1. Maintain a diversified asset allocation.
2. Accept the minimum level of risk required to achieve the return objective.
DPFP Investment Policy

3. Outperform the Policy Benchmark\(^1\) over rolling five-year periods.

4. Control and monitor the costs of administering and managing the investments.

C. Constraints

1. DPFP will be managed on a going-concern basis. The assets of the Fund will be invested with a long-term time horizon, while being cognizant of the weak actuarial funded ratio and ongoing liquidity needs.

2. The Board intends to maintain sufficient liquidity in either cash equivalents or short-term investment grade bonds to meet two to three years of anticipated benefit payments and expenses (net of contributions).

3. DPFP is a tax-exempt entity. Therefore, investments and strategies will be evaluated on a basis that is generally indifferent to taxable status.

Section 3  Ethics, Standards of Conduct, and Fiduciary Responsibility

The following are standards of conduct for the Board, Investment Advisory Committee, Staff, Investment Managers, Consultant(s), and all other investment related service providers of DPFP.\(^2\)

A. Place the interest of DPFP above personal interests.

B. Act with integrity, competence, diligence, respect, and in an ethical manner.

C. Use reasonable care, diligence, and exercise independent professional judgment when conducting analysis, making recommendations, and taking actions.

D. Promote the integrity of and uphold the rules governing DPFP.

E. Comply with all applicable laws, rules, and regulations of any government agency, regulatory organization, licensing agency, or professional association governing their professional activities.

F. Adhere to applicable policies relating to ethics, standard of conduct and fiduciary responsibility including the:

   1. Board of Trustees and Employees Ethics and Code of Conduct Policy;
   2. Board of Trustees Governance and Conduct Policy; and the
   3. Contractor’s Statement of Ethics.

Section 4  Core Beliefs and Long-Term Acknowledgements

This section outlines the core beliefs and long-term acknowledgements for the overall governance of DPFP. These beliefs and acknowledgements will serve as guiding principles in the decision making and implementation of DPFP’s investment mandate.

---

1 The Policy Benchmark represents the return of the investable and non-investable indices as defined in Appendix B, at the target allocation for each asset class.

2 These are informed by the CFA Institute and the Center for Fiduciary Studies.
A. A well-defined governance structure with clearly delineated responsibilities is critical in achieving consistent, long-term performance objectives.

B. The strategic asset allocation determines the risk reward profile of the portfolio and thus drives overall portfolio performance and volatility.
   1. Asset allocation has a greater effect on return variability than asset class investment structure or manager selection.
   2. It is essential to account for liabilities in setting long-term investment strategy.
   3. Rebalancing the portfolio is a key aspect of prudent long-term asset allocation policy.

C. Investment costs will be monitored and minimized within the context of maximizing net return. The goal is not low fees, but rather maximum returns, net of fees.
   1. The opportunity for active manager risk-adjusted outperformance (alpha) is not uniformly distributed across asset classes or Investment Managers’ strategies.
   2. Active strategies are preferred when there is strong conviction that they can be expected to add alpha, net of fees.
   3. Passive strategies should be considered if alpha expectations are unattractive.

D. Risk is multifaceted and will be evaluated holistically, incorporating quantitative measures and qualitative assessments.
   1. Global investment reduces risk through diversification.
   2. Diversification across different risk factors reduces risk.
   3. The pattern of returns matters because volatility levels and the sequence of gains and losses can impact funded status.
   4. Risk that is not expected to be rewarded over the long-term, or mitigated through diversification, will be minimized.
   5. Generating positive investment return requires recognizing and accepting non-diversifiable risk. Not taking enough risk is risky; therefore, DPFP will accept a prudent amount of risk to achieve its long-term target returns.

Section 5  Roles and Responsibilities

A. Board of Trustees

The Board of Trustees (Board) has a fiduciary responsibility to ensure prudent management of the plan and compliance with all state and federal laws. Additionally, the Board:

   1. Establishes investment objectives consistent with the needs of DPFP and approves the IPS of DPFP;
   2. Approves strategic asset allocation targets and ranges, and asset class structures;
   3. Prudently hires, monitors, and terminates key investment service providers including: Consultant(s), Investment Managers and Custodian;
DPFP Investment Policy

4. Appoints members to the Investment Advisory Committee (IAC);
5. Reviews investment related expenses;
6. Approves Board travel related to investments; and
7. Reviews the IPS annually and revises as needed.

B. Investment Advisory Committee (IAC)

1. IAC Composition, Selection and Criteria
   a. The requirement and general composition of the IAC is defined by statute.
   b. The IAC serves at the discretion of the Board of Trustees.
   c. IAC recommendations are not binding on the Board, provided however the Board may in the exercise of its fiduciary discretion grant decision-making authority to the IAC.
   d. The IAC is composed of up to six members including one or two current Board members and a majority of outside investment professionals.
   e. The current Board members will serve staggered two-year terms. Non-Board members will serve staggered three-year terms.
   f. The Board will appoint members of the IAC by vote.
   g. IAC meetings require a quorum of at least three IAC members. IAC members shall be provided reasonable notice of upcoming meetings, but this shall not prevent the IAC from meeting on short notice for an urgent item requiring immediate attention.
   h. The IAC member who is also a member of the Board will select a chair from its members to function as Chair of the IAC. The Chair shall serve as liaison to the Board and to preside over IAC meetings.
   i. The Board of Trustees may elect to dismiss a member of the IAC for any reason.

2. IAC Roles and Responsibilities:
   a. A key role of the IAC is to ensure that DPFP investments are prudently managed.
   b. The IAC will advise regarding the search and selection process for investment managers and other matters that the Board may request.
   c. All investment related agenda materials for the Board will be made available to the IAC.
   d. The IAC will meet as needed, but at least quarterly, to discuss the investment program and provide insight and recommendations to Staff and Consultant.
   e. The IAC Chair will report to the Board regarding IAC activity as well as investment-related concerns and recommendations.
   f. Any IAC member may address the Board to communicate investment related concerns.
g. IAC members are fiduciaries to DPFP.

C. Executive Director

1. The Executive Director is authorized to administer the operations and investment activities of DPFP under policy guidance from the Board;
2. Is authorized to manage investments approved by the Board including authority to enter into contract amendments including fund extensions, act with regard to investment governance issues and engagement of advisors as needed;
3. Manages the day to day operations of DPFP;
4. Oversees and reports to the Board on investment and due diligence processes and procedures;
5. Approves/declines all Staff travel related to investment manager on-site due diligence; and
6. Approves Investment Staff recommendations for presentation to the IAC and Board.
7. The Executive Director is a fiduciary to DPFP.

D. Investment Staff

1. The Investment Staff (Staff) has primary responsibility for oversight and management of the investment portfolio. Staff is responsible for investment manager due diligence and recommendations, portfolio implementation consistent with the Board approved asset allocation, and assessment of the Consultant(s);
2. Helps the Board and the IAC to oversee Investment Managers, Consultant(s), Custodian, and vendors;
3. Reports to Executive Director through the Chief Investment Officer;
4. Works closely with the Investment Consultant(s);
5. Notifies Consultant in writing of rebalancing needs and recommended implementation;
6. Coordinates the preparation and annual review of the IPS;
7. Prepares Staff Investment Manager recommendations, submits Staff and Consultant(s) recommendations to Executive Director for review;
8. After Board approval of investment, Staff approves Investment Manager Strategy guidelines which will be outlined in the Investment Manager agreements, as applicable;
9. Monitors all investments, Investment Managers and investment-related vendors;
10. Accounts for and reviews all external management fees and investment expenses; and
11. Ensures all fiduciaries to DPFP are aware of their fiduciary obligations annually.  

\[3\] Verification of this may be through contract, agreement, or annual fiduciary acknowledgement letter.
E. Consultant(s)

1. The Consultant(s) provides independent investment expertise to the Board, IAC, and Staff;
2. Reports to the Board and works closely with Staff;
3. Monitors and reports qualitative and quantitative criteria related to Investment Managers and aggregate portfolio activity and performance;
4. Recommends annually to Board strategic asset allocation targets, ranges, and benchmarks for asset classes;
5. Documents asset allocation recommendations with asset class performance expectations including standard deviation, expected return and correlations for each asset class used by DPFP;
6. Reviews asset class structures periodically as required by the IPS and recommends improvements to the Board.
7. Establishes and follows due diligence procedures for Investment Manager candidate searches;
8. Conducts screens and searches for Investment Manager candidates;
9. Assists in the selection process and monitoring of Investment Managers;
10. Reviews and recommends Investment Managers and peer groups to IAC and Board;
11. Documents and delivers to Staff written recommendations on Investment Manager new hire, hold and termination reviews;
12. Recommends benchmark and appropriate asset class and sub-allocation for investment managers;
13. Approves and verifies in writing each of Staff’s rebalancing recommendations and implementation;
14. Monitors the diversification, quality, duration, and risk of holdings as applicable;
15. Assists Staff in negotiation of terms of vendor contracts; and
16. Prepares quarterly investment reports, which include the information outlined in Appendix C.
17. Any Investment Consultant is a fiduciary to DPFP and this responsibility must be acknowledged in writing.

F. Investment Managers

1. Public Investment Managers
   a. Acknowledge in writing acceptance of the objectives, guidelines, and standards of performance;
   b. Invest the assets of DPFP in accordance with its objectives, guidelines and standards;
c. Exercise full discretionary authority as to all buy, hold and sell decisions for each security under management, subject to the guidelines established in the Investment Management Agreement or applicable contract;

d. Send trade confirmations to the Custodian;

e. Deliver monthly report to Consultant(s)/Staff describing portfolio asset class weights, investment performance, security positions, and transactions;

f. Adhere to best execution and valuation policies;

g. Inform Staff and Consultant, as soon as practical, in writing of any breach of investment guidelines, ethics violations or violations of self-dealing;

h. Inform Staff and Consultant as soon as practical, in writing, of any significant changes in the ownership, organizational structure, financial condition, personnel staffing, or other material changes at the firm; and

i. Act as a fiduciary to DPFP. All separate account investment managers are fiduciaries to DPFP and this responsibility must be acknowledged in the contract for services.

2. Commingled Fund Investment Managers

a. Provide the objectives, guidelines, and standards of performance of the fund;

b. Provide a report detailing fund performance and holding on a monthly basis or as agreed by DPFP;

c. Prices and fair market valuations will be based on reference to liquid markets, or obtained from an independent service provider if the assets held by the fund cannot be reasonably valued by reference to liquid markets;

d. The investment manager of the commingled fund must act as a Fiduciary to the commingled fund.

e. Mutual funds where the investment advisor or manager of the mutual fund is subject to the Investment Company Act of 1940 meet the requirements of this subsection 2.

3. Private Investment Managers

a. Provide objectives, strategy guidelines, and standards of performance as evidenced in investment manager, operating, or partnership agreement;

b. Ensure that financials statements undergo annual audits and that investments are reported at fair market value, as outlined in the Investment Management, Partnership, or Operating Agreement(s);

c. Communicate to Staff any material changes in the ownership or management of the firm, and or the stability of the organization;

d. Inform Staff, as soon as practical, in writing of any breach of investment guidelines, ethics violations or violations of self-dealing.
DPFP Investment Policy  
Amended as of December 13, 2018

G. Custodian

1. Safe keep and hold all DPFP’s assets in the appropriate domestic accounts and provide highly secure storage of physical stock certificates and bonds such that there is no risk of loss due to theft, fire, or accident;
2. Maintain separate accounts by legal registration;
3. Arrange for timely execution and settlement of Investment Manager securities transactions made for DPFP;
4. Proactively reconcile transactions and reported values to Investment Manager statements;
5. Provide for receipt and prompt crediting of all dividend, interest and principal payments received as a result of DPFP portfolio holdings or securities lending activities;
6. Monitor income receipts to ensure that income is received when due and institute investigative process to track and correct late or insufficient payments, including reimbursement for any interest lost due to tardiness or shortfall;
7. At the direction of the Staff, expeditiously transfer funds into and out of specified accounts;
8. Timely collection of income, including tax reclaim;
9. Prompt and accurate administration of corporate actions, including proxy issues; and
10. Manage securities lending.

Section 6 Strategic Asset Allocation and Rebalancing

Note: The investment portfolio is undergoing a transition from a legacy allocation with substantial exposure to illiquid private market assets to a more traditional allocation profile. In October 2018, the Board approved a new long-term asset allocation, recognizing that implementation would be subject to the gradual unwinding of private market assets. In November 2018, the Board approved an asset allocation implementation plan to prioritize the reallocation of cash distributions from private market assets. Initial variances to long-term allocation targets may be quite large but are expected to gradually diminish. Rebalancing ranges have been established to accommodate current variances to target and will be tightened over time as appropriate.

A. Asset Allocation

1. The strategic asset allocation establishes target weights and rebalancing ranges for each asset class and is designed to maximize the long-term expected return of the Fund within an acceptable risk tolerance while providing liquidity to meet cash flow needs.
2. A formal asset allocation study will be conducted as directed by the Board, but at least every three years.

4 Electronic transfer records at the Depository Trust Company (“DTC”) are preferred.
3. Asset allocation targets will be reviewed annually for reasonableness in relation to significant economic and market changes or to changes to the investment objectives.

4. Asset class descriptions are provided in Appendix A.

5. The approved asset allocation is included in Appendix B.

B. Asset Class Structure
   1. The asset class structure establishes the investment manager roles that will be used to implement the asset allocation.
   2. The asset class structure will emphasize simplicity and cost control and toward that end will employ the minimum number of managers necessary to assure appropriate diversification within each asset class.
   3. Asset class structures will be reviewed periodically, approximately every two years.
   4. Any changes to the asset class structure must be approved by the Board.

C. Rebalancing
   1. In general, cash flows will be allocated to move asset classes toward target weights and shall be prioritized according to the Asset Allocation Implementation Plan detailed in Appendix B1.
   2. Staff shall submit a rebalancing recommendation to the Consultant at least annually based on consideration of the entire portfolio, and additionally as soon as practicable when an asset class breaches an established rebalancing range or when deemed prudent by Staff or Consultant.
   3. The allocations to Cash and Short-Term Investment Grade bonds are designed to provide liquidity during periods of investment market stress and are not required to be rebalanced to target if deemed prudent by Staff and Consultant.
   4. Rebalancing recommendations should consider expected future cash flows, investment liquidity, market volatility, and costs.
   5. Transition management shall be used when prudent to minimize transition costs.
   6. Staff is responsible for implementing the rebalancing plan following Consultant approval.
   7. Rebalancing recommendations and activity shall be reported to the Board and the IAC.

D. Private Market Limitations/Provisions
   1. DPFP will not commit capital to any direct private market investments or co-investments that are tied to a single company. This restriction does not prevent DPFP from holding direct investments that result from the dissolution of a private market fund.
   2. DPFP will not commit capital to any private market fund if such commitment would likely result in DPFP holding greater than a 10% interest in the fund.
3. DPFP will not commit capital to any private market fund if such commitment exceeds 2% of the total market value of the DPFP investment portfolio.

4. DPFP will not commit to any private market fund if total commitments to related funds (e.g., fund family) exceeds 4% of the total market value of the DPFP investment portfolio.

5. The Board and Staff may consider and approve sales of private assets for less than the current net asset value of the asset reported to the Board. Factors affecting such a decision would include prices obtained after marketing the asset, liquidity, or overallocation to the relevant asset class.

Section 7  Investment Manager Search, Selection, and Monitoring

A. Investment Manager Search and Selection

1. The selection of investment managers will utilize a robust process to ensure an open and competitive universe, proper evaluation and due diligence, and selection of candidates that are best able to demonstrate the characteristics sought in a specific search.

2. Investment manager searches shall be based on one or more of the following reasons:
   a. Changes to the approved asset allocation;
   b. Changes to the approved asset class structure; or
   c. Replacement for terminated manager or manager of concern.

3. The IAC will advise regarding the search and selection process for investment managers.

4. Staff and Consultant shall define and document the search process, including evaluation criteria, prior to initiating the search process.

5. Each investment manager hiring recommendation shall be supported by a rationale that is consistent with the pre-established evaluation criteria.

6. Each hiring recommendation will generally include the following information:
   a. A description of the organization and key people;
   b. A description of the investment process and philosophy;
   c. A description of return, historical performance, and future expectations;
   d. The risks inherent in the investment and the manager’s approach;
   e. The proper time horizon for evaluation of results;
   f. Identification of relevant comparative measures such as benchmarks and/or peer samples;
   g. The suitability of the investment within the relevant asset class; and
   h. The expected cost of the investment.
7. Alternative Investments

The Board has adopted the definition of “Alternative Investments” as outlined in Appendix D, which will be reviewed as part of the due diligence process for any new investment. Pursuant to Section 4.07 of Article 6243a-1, the vote of eight trustees is required to approve any Alternative Investment.

B. Investment Monitoring

1. Staff and Consultant(s) are responsible for ongoing monitoring of all Investment Managers using qualitative and quantitative factors as appropriate.

2. Qualitative factors may include:
   a. Consistent implementation of philosophy and process;
   b. Ownership changes or departure of key personnel;
   c. Assets under management at the firm and product level;
   d. Conflicts of interest;
   e. Material litigation or regulatory challenges involving the investment manager;
   f. Adequate reporting and transparency; and
   g. Material client-servicing problems.

3. Quantitative factors may include:
   a. Long-term (3-5 years) performance relative to assigned benchmarks;
   b. Unusually large short-term performance variance (over or under); and
   c. Risk metrics such as volatility, drawdown, and tracking error.

4. Staff and the Consultant will highlight Investment Manager concerns to the IAC and the Board and recommend an appropriate course of action.

Section 8 Risk Management

Staff will work within the parameters of this Investment Policy Statement to mitigate the risk of capital loss. By implementing this Policy, the Board has addressed:

A. Custodial Risk for both public and private holdings;

B. Interest Rate Risk through fixed income duration and credit monitoring;

C. Concentration and Credit Risk through asset allocation targets and ranges, rebalancing, and the monitoring of investment guidelines.

Furthermore, through this Policy, Staff has established the necessary criteria to monitor the Custodian, Consultant(s), and Investment Managers, such that DPFP controls and manages interest rate, custody, concentration, and credit risks.

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5 Please review Custodian responsibilities in Section 5.
6 Please review Annual Review of IPS and Investment Manager strategy guidelines reviewed and approved by Staff.
Section 9  Approval and Effective Date

The Investment Policy Statement was originally adopted by the Board on April 14, 2016 and was subsequently amended and adopted on the following dates.

December 14, 2017
December 13, 2018
January 10, 2019

APPROVED on December 13, 2018January 10, 2019 by the Board of Trustees of the Dallas Police and Fire Pension System.

[signature]
William F. Quinn
Chairman

Attested:

[signature]
Kelly Gottschalk
Executive Director
Appendix A – Asset Class Descriptions

DPFP investment assets are prudently diversified to optimize expected returns and control risks. Assets can generally be categorized into four functional categories of Growth, Income, Inflation Protection, and Risk Mitigation

A. Growth Assets
   1. Role: Capital appreciation, primary driver of long-term total return
   2. Investment Approach: Growth assets generally represent equity or equity-like interests in current and future income streams and capture long-term economic growth trends throughout the world.
   3. Risk Factors: The cost of the high expected long-term returns is higher expected volatility. Growth assets are highly sensitive to economic conditions and are subject to potential loss during economic downturns, rising/unexpected inflation, and rising interest rates.
   4. Asset Classes
      a. Global Equity represents publicly traded stock holdings of companies across the globe. Liquidity is a key benefit as stocks can be traded daily. Foreign currency volatility can be a source of risk and return.
      b. Emerging Market Equity represents publicly traded stock holdings of companies located in or highly dependent on developing (emerging) countries. Emerging market equity is expected to capture the higher economic growth of emerging economies and provide higher long-term returns than global equity coupled with higher volatility. Foreign currency volatility can be a source of risk and return.
      c. Private Equity refers to investments in private companies (direct investments) or funds that hold investments in private companies or securities that are not typically traded in the public markets. Frequently these investments need “patient” capital to allow time for growth potential to be realized through a combination of capital investment, management initiatives, or market development. Private equity is expected to provide higher long-term returns than global equity, but illiquidity is a key risk as investment contributions may be locked up for several years.

B. Income Assets
   1. Role: Current income and moderate long-term appreciation
   2. Investment Approach: Income assets are generally fixed claims on assets or income streams of an issuer (e.g. government, corporation, asset-backed securities).
3. Risk Factors: The primary risk for Income assets is the failure of the borrower to make timely payments of interest and principal (credit risk) and the price volatility related to credit risk. Bonds with greater credit risk (i.e., bonds with lower credit ratings) are typically less liquid than higher quality bonds.

4. Asset Classes
   a. **Global Bonds** includes sovereign and corporate debt issued by countries and companies located throughout the world in local currency and U.S. dollars. Expanding the investable universe beyond the U.S. provides a diversified source of returns.
   b. **Bank Loans** are like high yield bonds in that both represent debt issuers with higher credit risk. Compared to high-yield bonds, bank loans typically have higher seniority in the capital structure, which has historically resulted in much higher recovery following default.
   c. **High Yield Debt** refers to bonds with higher credit risk and lower credit ratings than investment-grade corporate bonds, Treasury bonds and municipal bonds. Because of the higher risk of default, these bonds pay a higher yield than investment grade bonds.
   d. **Emerging Market Debt** (EMD) refers to bonds issued by developing countries or corporations based in developing countries. EMD bonds can be denominated in U.S. Dollars or local currency. The primary risk factor is credit quality, but interest rates and foreign currency are also factors.
   e. **Private Debt** refers to non-bank direct lending arrangements. Features are similar to bank loans with somewhat higher credit risk and yields. Investments are typically structured in a private market vehicle with limited liquidity. Private debt may be included within the private equity asset class in the strategic asset allocation.

C. **Inflation Protection (Real Assets)**
   1. Role: Current income, inflation protection, diversification
   2. Investment Approach: Generally, ownership in physical assets.
   3. Risk Factors: Real Assets may not provide the desired inflation protection. Loss of principal is also a risk. Foreign assets are also subject to currency movements against the U.S. dollar.
   4. Asset Classes
      a. **Real Estate** includes investments in office buildings, apartments, retail, raw land, and development projects.
      b. **Natural Resources** broadly refers to anything mined or collected in raw form but may include assets subject to further processing. Typical assets include permanent and row crops, timber, minerals, and metals.
c. **Infrastructure** refers to investments in physical systems that support world economies. Typical investments include transportation, communication, utilities (electricity, gas, water, sewage).

D. **Risk Mitigation**

1. Role: Liquidity to fund benefit payments and other cash flow needs, capital preservation, modest current income, diversification to growth assets.

2. Investment Approach: Cash equivalents or high-quality domestic bonds.

3. Risk Factors: Risks are substantially lower for risk mitigation assets, but may include modest exposure to credit or interest rates (duration).

4. Asset Classes
   a. **Cash Equivalents**
   b. **Short Term Investment Grade Bonds** have moderate interest rate risk.
   c. **Investment Grade Bonds** including bonds and notes issued by the U.S Treasury, U.S. Government Agencies, state and local municipalities, corporations, or other issuers with similar conservative risk profiles. Risk factors include duration and credit.
## Appendix B – Strategic Asset Allocation and Rebalancing Ranges

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Policy Benchmark</th>
<th>Target Weight</th>
<th>Minimum Weight</th>
<th>Maximum Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Equity</td>
<td>MSCI ACWI IMI Net</td>
<td>55%</td>
<td>40%</td>
<td>48%</td>
</tr>
<tr>
<td>Emerging Markets Equity</td>
<td>MSCI Emerging Markets IMI Net</td>
<td>10%</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>Cambridge Associates US Private Equity Index 1Q Lag</td>
<td>5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td></td>
<td>35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>91 Day T-Bills</td>
<td>3%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Short Term Investment Grade Bonds</td>
<td>Bloomberg Barclays US Treasury 1-3 Year</td>
<td>12%</td>
<td>5%</td>
<td>15%</td>
</tr>
<tr>
<td>Investment Grade Bonds²</td>
<td>Bloomberg Barclays Aggregate</td>
<td>4%</td>
<td>2%²</td>
<td>6%</td>
</tr>
<tr>
<td>High Yield Bonds</td>
<td>Bloomberg Barclays Global High Yield</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Bank Loans</td>
<td>S&amp;P/LSTA Leveraged Loan</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Global Bonds</td>
<td>Bloomberg Barclays Global Aggregate</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Emerging Market Debt²</td>
<td>50% JPM EMBI/50% JPM GBI-EM</td>
<td>4%</td>
<td>2%²</td>
<td>6%</td>
</tr>
<tr>
<td>Private Debt</td>
<td>Barclays Global HY + 2% (Rolling 3 Mo.)</td>
<td>0%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Real Assets</strong></td>
<td></td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>NCREIF Property Index 1Q Lag</td>
<td>5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>NCREIF Farmland Total Return Index 1Q Lag</td>
<td>5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>S&amp;P Global Infrastructure (Rolling 3 Mo.)</td>
<td>0%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 – The investment portfolio is undergoing a transition from a legacy allocation with substantial exposure to illiquid private market assets to a more traditional allocation profile. In October 2018, the Board approved a new long-term asset allocation, recognizing that implementation would be subject to the gradual unwinding of private market assets. In November 2018, the Board approved an asset allocation implementation plan to prioritize the reallocation of cash distributions from private market assets. Initial variances to long-term allocation targets may be quite large but are expected to gradually diminish. Rebalancing ranges have been established to accommodate current variances to target and will be tightened over time as appropriate.

2 – At the time of IPS adoption allocations to Investment Grade Bonds and Emerging Market Debt were below the minimum weight. The investment manager hiring for Investment Grade Bonds had not been completed and the Emerging Market Debt allocation was under review by the Board. These allocations will be funded in accordance with the asset allocation implementation plan in detailed in Appendix B1.

3 – Rebalancing Ranges are not established for illiquid asset classes.
Appendix B1 – Asset Allocation Implementation Plan

The investment portfolio is undergoing a transition from a legacy allocation with substantial exposure to illiquid private market assets to a more traditional allocation profile. In October 2018, the Board approved a new long-term asset allocation, recognizing that implementation would be subject to the gradual unwinding of private market assets. In November 2018, the Board approved the following implementation plan to prioritize the reallocation of cash distributions from private market assets.

<table>
<thead>
<tr>
<th>Order of Reallocation</th>
</tr>
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<tbody>
<tr>
<td>Allocate up to Target, then proceed to next asset class</td>
</tr>
<tr>
<td>1. Safety Reserve – Cash</td>
</tr>
<tr>
<td>2. Safety Reserve – Short-Term Investment Grade Bonds</td>
</tr>
<tr>
<td>3. Global Equity, only if current exposure is less than 22% of DPFP(^1)</td>
</tr>
<tr>
<td>4. Emerging Market Equity, only if current exposure is less than 2.5% of DPFP(^2)</td>
</tr>
<tr>
<td>5. Investment Grade Bonds</td>
</tr>
<tr>
<td>6. Global Bonds</td>
</tr>
<tr>
<td>7. Bank Loans</td>
</tr>
<tr>
<td>8. High Yield Bonds</td>
</tr>
<tr>
<td>9–9. Global Equity above 22%, contributions limited to 6% per year, Emerging Markets Debt</td>
</tr>
<tr>
<td>10. Emerging Markets Debt, Global Equity</td>
</tr>
<tr>
<td>11. Emerging Markets Equity above 2.5%, contributions limited to 2.5% per year</td>
</tr>
<tr>
<td>12. Private Real Estate (aggregate illiquid exposure must be under 20%)</td>
</tr>
<tr>
<td>13. Private Equity (aggregate illiquid exposure must be under 15%)</td>
</tr>
</tbody>
</table>

---

1 – Global Equity target weight is 40%. If current exposure is more than 22% proceed to next asset class in the matrix. The reallocation framework is designed to maintain at least the mid-2018 exposure to public equity, prior to increasing fixed-income exposure.

2 – Emerging Market Equity Target weight is 10%. If current exposure is more than 2.5% proceed to next asset class in the matrix. The reallocation framework is designed to maintain at least the mid-2018 exposure to public equity, prior to increasing fixed-income exposure.
Appendix C – Investment Consultant Reporting Requirements

The investment consultant is required to provide the Board with quarterly investment information for portfolio monitoring purposes. Generally, these are as follows:

Quarterly (due in advance of the meeting)
1. DPFP’s actual asset allocation relative to its target asset allocation as defined in Appendix B.
2. DPFP’s return relative to its Policy Benchmark return and other public pension funds.
3. DPFP’s risk adjusted returns relative to the policy and other public pension funds.
4. Asset class performance relative to the benchmarks as defined in Appendix B.
5. Individual Investment Manager returns relative to their stated benchmark.
6. Report will specifically acknowledge any underperforming Investment Managers.
7. Any reportable events affecting any of DPFP’s Investment Managers.
Appendix D – Alternative Investments

Alternative Assets means any investment that is not a Traditional Asset.

Traditional Assets include:

1. **Common Stocks:** publicly traded securities representing ownership in a corporation; also known as publicly-traded equity. Examples include publicly traded equity shares of public companies, REITs, and ADRs. Regional examples include shares of companies domiciled in the US, non-US developed markets and emerging markets.

2. **Bonds:** publicly-traded securities, the holders of which serve as creditors to either governmental or corporate entities. Examples include government bonds and corporate bonds, including senior bank loans. Regional examples include US government issued bonds, non-US international developed market issued bonds, and emerging market issued bonds. Credit examples include investment grade bonds and non-investment grade bonds (e.g. high yield bonds and bank loans).

3. **Cash Equivalents:** short-term investments held in lieu of cash and readily convertible into cash within a short time span. Examples include CDs, commercial paper, and Treasury bills.

Though an exhaustive list is not included, some of the defining characteristics of Alternative Assets and their vehicles include:

1. Private ownership vehicles
2. Liquidity-constrained, and a lock-up of capital for extended time periods (one-year or longer)
3. Use of leverage
4. Ability to take short positions
5. Use of derivatives

The Board recognizes that certain investments may have characteristics and underlying securities that could be classified as both a Traditional and Alternative Investment. On any new investment recommendation, Staff and Consultant will categorize an investment as either Alternative or Traditional based on these criteria, with a focus on liquidity of the investment, for the Board’s consideration.
INVESTMENT POLICY
STATEMENT

Amended as of January 10, 2019
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Section 1 Introduction and Purpose

This policy statement shall guide investment of the assets of the Dallas Police and Fire Pension System (DPFP). This investment policy statement (IPS) is issued for the guidance of the Dallas Police and Fire Pension System Board of Trustees (Board), Investment Advisory Committee (IAC), Executive Director, Staff, Consultant(s), Custodian, and Investment Managers. This IPS is intended to set forth an appropriate set of goals and objectives for DPFP. It will define guidelines to assist fiduciaries and Staff in the supervision of the investments of DPFP. The investment program processes and procedures are defined in the various sections of the IPS by:

A. Stating in a written document DPFP’s expectations, objectives and guidelines for the investment of assets;

B. Setting forth an investment structure for managing the portfolio. This structure includes assigning various asset classes, investment management styles, asset allocation and acceptable ranges that, in total, are expected to produce an appropriate level of overall diversification and total investment return over the investment time horizon;

C. Encouraging effective communications between the Board, IAC, Executive Director, Staff, Consultant(s), Investment Managers and Custodian(s);

D. Setting forth policy that will consider various factors, including inflation, global economic growth, liquidity and expenses, that will affect the portfolio’s short and long-term total expected returns and risk;

E. Establishing criteria to select and evaluate Investment Managers; and

F. Complying with applicable fiduciary and due diligence requirements experienced investment professionals would utilize, and with laws, rules and regulations applicable to DPFP.

Section 2 Goals, Objectives, and Constraints

A. Goals

1. Ensure funds are available to meet current and future obligations of the plan when due.

2. Earn a long-term, net of fees, investment return greater than the actuarial return assumption.

3. Rank in the top half of the public fund universe over the rolling five-year period, net of fees.

B. Objectives

1. Maintain a diversified asset allocation.

2. Accept the minimum level of risk required to achieve the return objective.
DPFP Investment Policy Amended as of January 10, 2019

3. Outperform the Policy Benchmark\(^1\) over rolling five-year periods.
4. Control and monitor the costs of administering and managing the investments.

C. Constraints
1. DPFP will be managed on a going-concern basis. The assets of the Fund will be invested with a long-term time horizon, while being cognizant of the weak actuarial funded ratio and ongoing liquidity needs.
2. The Board intends to maintain sufficient liquidity in either cash equivalents or short-term investment grade bonds to meet two to three years of anticipated benefit payments and expenses (net of contributions).
3. DPFP is a tax-exempt entity. Therefore, investments and strategies will be evaluated on a basis that is generally indifferent to taxable status.

Section 3 Ethics, Standards of Conduct, and Fiduciary Responsibility

The following are standards of conduct for the Board, Investment Advisory Committee, Staff, Investment Managers, Consultant(s), and all other investment related service providers of DPFP.\(^2\)

A. Place the interest of DPFP above personal interests.
B. Act with integrity, competence, diligence, respect, and in an ethical manner.
C. Use reasonable care, diligence, and exercise independent professional judgment when conducting analysis, making recommendations, and taking actions.
D. Promote the integrity of and uphold the rules governing DPFP.
E. Comply with all applicable laws, rules, and regulations of any government agency, regulatory organization, licensing agency, or professional association governing their professional activities.
F. Adhere to applicable policies relating to ethics, standard of conduct and fiduciary responsibility including the:
   1. Board of Trustees and Employees Ethics and Code of Conduct Policy;
   2. Board of Trustees Governance and Conduct Policy; and the
   3. Contractor’s Statement of Ethics.

Section 4 Core Beliefs and Long-Term Acknowledgements

This section outlines the core beliefs and long-term acknowledgements for the overall governance of DPFP. These beliefs and acknowledgements will serve as guiding principles in the decision making and implementation of DPFP’s investment mandate.

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\(^1\) The Policy Benchmark represents the return of the investable and non-investable indices as defined in Appendix B, at the target allocation for each asset class.

\(^2\) These are informed by the CFA Institute and the Center for Fiduciary Studies.
A. A well-defined governance structure with clearly delineated responsibilities is critical in achieving consistent, long-term performance objectives.

B. The strategic asset allocation determines the risk reward profile of the portfolio and thus drives overall portfolio performance and volatility.
   1. Asset allocation has a greater effect on return variability than asset class investment structure or manager selection.
   2. It is essential to account for liabilities in setting long-term investment strategy.
   3. Rebalancing the portfolio is a key aspect of prudent long-term asset allocation policy.

C. Investment costs will be monitored and minimized within the context of maximizing net return. The goal is not low fees, but rather maximum returns, net of fees.
   1. The opportunity for active manager risk-adjusted outperformance (alpha) is not uniformly distributed across asset classes or Investment Managers’ strategies.
   2. Active strategies are preferred when there is strong conviction that they can be expected to add alpha, net of fees.
   3. Passive strategies should be considered if alpha expectations are unattractive.

D. Risk is multifaceted and will be evaluated holistically, incorporating quantitative measures and qualitative assessments.
   1. Global investment reduces risk through diversification.
   2. Diversification across different risk factors reduces risk.
   3. The pattern of returns matters because volatility levels and the sequence of gains and losses can impact funded status.
   4. Risk that is not expected to be rewarded over the long-term, or mitigated through diversification, will be minimized.
   5. Generating positive investment return requires recognizing and accepting non-diversifiable risk. Not taking enough risk is risky; therefore, DPFP will accept a prudent amount of risk to achieve its long-term target returns.

Section 5 Roles and Responsibilities

A. Board of Trustees

The Board of Trustees (Board) has a fiduciary responsibility to ensure prudent management of the plan and compliance with all state and federal laws. Additionally, the Board:

   1. Establishes investment objectives consistent with the needs of DPFP and approves the IPS of DPFP;
   2. Approves strategic asset allocation targets and ranges, and asset class structures;
   3. Prudently hires, monitors, and terminates key investment service providers including: Consultant(s), Investment Managers and Custodian;
4. Appoints members to the Investment Advisory Committee (IAC);
5. Reviews investment related expenses;
6. Approves Board travel related to investments; and
7. Reviews the IPS annually and revises as needed.

B. Investment Advisory Committee (IAC)

1. IAC Composition, Selection and Criteria
   a. The requirement and general composition of the IAC is defined by statute.
   b. The IAC serves at the discretion of the Board of Trustees.
   c. IAC recommendations are not binding on the Board, provided however the Board may in the exercise of its fiduciary discretion grant decision-making authority to the IAC.
   d. The IAC is composed of up to six members including one or two current Board members and a majority of outside investment professionals.
   e. IAC members will serve two-year terms.
   f. The Board will appoint members of IAC members by vote.
   g. IAC meetings require a quorum of at least three IAC members. IAC members shall be provided reasonable notice of upcoming meetings, but this shall not prevent the IAC from meeting on short notice for an urgent item requiring immediate attention.
   h. One IAC member who is also a member of the Board will function as Chair of the IAC. The Chair shall serve as liaison to the Board and preside over IAC meetings.
   i. The Board of Trustees may elect to dismiss a member of the IAC for any reason.

2. IAC Roles and Responsibilities:
   a. A key role of the IAC is to ensure that DPFP investments are prudently managed.
   b. The IAC will advise regarding the search and selection process for investment managers and other matters that the Board may request.
   c. All investment related agenda materials for the Board will be made available to the IAC.
   d. The IAC will meet as needed, but at least quarterly, to discuss the investment program and provide insight and recommendations to Staff and Consultant.
   e. The IAC Chair will report to the Board regarding IAC activity as well as investment-related concerns and recommendations.
   f. Any IAC member may address the Board to communicate investment related concerns.
   g. IAC members are fiduciaries to DPFP.
C. **Executive Director**

1. The Executive Director is authorized to administer the operations and investment activities of DPFP under policy guidance from the Board;
2. Is authorized to manage investments approved by the Board including authority to enter into contract amendments including fund extensions, act with regard to investment governance issues and engagement of advisors as needed;
3. Manages the day to day operations of DPFP;
4. Oversees and reports to the Board on investment and due diligence processes and procedures;
5. Approves/declines all Staff travel related to investment manager on-site due diligence; and
6. Approves Investment Staff recommendations for presentation to the IAC and Board.
7. The Executive Director is a fiduciary to DPFP.

D. **Investment Staff**

1. The Investment Staff (Staff) has primary responsibility for oversight and management of the investment portfolio. Staff is responsible for investment manager due diligence and recommendations, portfolio implementation consistent with the Board approved asset allocation, and assessment of the Consultant(s);
2. Helps the Board and the IAC to oversee Investment Managers, Consultant(s), Custodian, and vendors;
3. Reports to Executive Director through the Chief Investment Officer;
4. Works closely with the Investment Consultant(s);
5. Notifies Consultant in writing of rebalancing needs and recommended implementation;
6. Coordinates the preparation and annual review of the IPS;
7. Prepares Staff Investment Manager recommendations, submits Staff and Consultant(s) recommendations to Executive Director for review;
8. After Board approval of investment, Staff approves Investment Manager Strategy guidelines which will be outlined in the Investment Manager agreements, as applicable;
9. Monitors all investments, Investment Managers and investment-related vendors;
10. Accounts for and reviews all external management fees and investment expenses; and
11. Ensures all fiduciaries to DPFP are aware of their fiduciary obligations annually.³

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³ Verification of this may be through contract, agreement, or annual fiduciary acknowledgement letter.
E. Consultant(s)

1. The Consultant(s) provides independent investment expertise to the Board, IAC, and Staff;
2. Reports to the Board and works closely with Staff;
3. Monitors and reports qualitative and quantitative criteria related to Investment Managers and aggregate portfolio activity and performance;
4. Recommends annually to Board strategic asset allocation targets, ranges, and benchmarks for asset classes;
5. Documents asset allocation recommendations with asset class performance expectations including standard deviation, expected return and correlations for each asset class used by DPFP;
6. Reviews asset class structures periodically as required by the IPS and recommends improvements to the Board.
7. Establishes and follows due diligence procedures for Investment Manager candidate searches;
8. Conducts screens and searches for Investment Manager candidates;
9. Assists in the selection process and monitoring of Investment Managers;
10. Reviews and recommends Investment Managers and peer groups to IAC and Board;
11. Documents and delivers to Staff written recommendations on Investment Manager new hire, hold and termination reviews;
12. Recommends benchmark and appropriate asset class and sub-allocation for investment managers;
13. Approves and verifies in writing each of Staff’s rebalancing recommendations and implementation;
14. Monitors the diversification, quality, duration, and risk of holdings as applicable;
15. Assists Staff in negotiation of terms of vendor contracts; and
16. Prepares quarterly investment reports, which include the information outlined in Appendix C.
17. Any Investment Consultant is a fiduciary to DPFP and this responsibility must be acknowledged in writing.

F. Investment Managers

1. Public Investment Managers
   a. Acknowledge in writing acceptance of the objectives, guidelines, and standards of performance;
   b. Invest the assets of DPFP in accordance with its objectives, guidelines and standards;
c. Exercise full discretionary authority as to all buy, hold and sell decisions for each security under management, subject to the guidelines established in the Investment Management Agreement or applicable contract;
d. Send trade confirmations to the Custodian;
e. Deliver monthly report to Consultant(s)/Staff describing portfolio asset class weights, investment performance, security positions, and transactions;
f. Adhere to best execution and valuation policies;
g. Inform Staff and Consultant, as soon as practical, in writing of any breach of investment guidelines, ethics violations or violations of self-dealing;
h. Inform Staff and Consultant as soon as practical, in writing, of any significant changes in the ownership, organizational structure, financial condition, personnel staffing, or other material changes at the firm; and
i. Act as a fiduciary to DPFP. All separate account investment managers are fiduciaries to DPFP and this responsibility must be acknowledged in the contract for services.

2. Commingled Fund Investment Managers
   a. Provide the objectives, guidelines, and standards of performance of the fund;
   b. Provide a report detailing fund performance and holding on a monthly basis or as agreed by DPFP;
   c. Prices and fair market valuations will be based on reference to liquid markets, or obtained from an independent service provider if the assets held by the fund cannot be reasonably valued by reference to liquid markets;
   d. The investment manager of the commingled fund must act as a Fiduciary to the commingled fund.
   e. Mutual funds where the investment advisor or manager of the mutual fund is subject to the Investment Company Act of 1940 meet the requirements of this subsection 2.

3. Private Investment Managers
   a. Provide objectives, strategy guidelines, and standards of performance as evidenced in investment manager, operating, or partnership agreement;
   b. Ensure that financials statements undergo annual audits and that investments are reported at fair market value, as outlined in the Investment Management, Partnership, or Operating Agreement(s);
   c. Communicate to Staff any material changes in the ownership or management of the firm, and or the stability of the organization;
   d. Inform Staff, as soon as practical, in writing of any breach of investment guidelines, ethics violations or violations of self-dealing.
G. Custodian
1. Safe keep and hold all DPFP’s assets in the appropriate domestic accounts and provide highly secure storage of physical stock certificates and bonds such that there is no risk of loss due to theft, fire, or accident;  
2. Maintain separate accounts by legal registration;  
3. Arrange for timely execution and settlement of Investment Manager securities transactions made for DPFP;  
4. Proactively reconcile transactions and reported values to Investment Manager statements;  
5. Provide for receipt and prompt crediting of all dividend, interest and principal payments received as a result of DPFP portfolio holdings or securities lending activities;  
6. Monitor income receipts to ensure that income is received when due and institute investigative process to track and correct late or insufficient payments, including reimbursement for any interest lost due to tardiness or shortfall;  
7. At the direction of the Staff, expeditiously transfer funds into and out of specified accounts;  
8. Timely collection of income, including tax reclaim;  
9. Prompt and accurate administration of corporate actions, including proxy issues; and  
10. Manage securities lending.

Section 6 Strategic Asset Allocation and Rebalancing

Note: The investment portfolio is undergoing a transition from a legacy allocation with substantial exposure to illiquid private market assets to a more traditional allocation profile. In October 2018, the Board approved a new long-term asset allocation, recognizing that implementation would be subject to the gradual unwinding of private market assets. In November 2018, the Board approved an asset allocation implementation plan to prioritize the reallocation of cash distributions from private market assets. Initial variances to long-term allocation targets may be quite large but are expected to gradually diminish. Rebalancing ranges have been established to accommodate current variances to target and will be tightened over time as appropriate.

A. Asset Allocation
1. The strategic asset allocation establishes target weights and rebalancing ranges for each asset class and is designed to maximize the long-term expected return of the Fund within an acceptable risk tolerance while providing liquidity to meet cash flow needs.  
2. A formal asset allocation study will be conducted as directed by the Board, but at least every three years.

4 Electronic transfer records at the Depository Trust Company (“DTC”) are preferred.
3. Asset allocation targets will be reviewed annually for reasonableness in relation to significant economic and market changes or to changes to the investment objectives.

4. Asset class descriptions are provided in Appendix A.

5. The approved asset allocation is included in Appendix B.

B. Asset Class Structure

1. The asset class structure establishes the investment manager roles that will be used to implement the asset allocation.

2. The asset class structure will emphasize simplicity and cost control and toward that end will employ the minimum number of managers necessary to assure appropriate diversification within each asset class.

3. Asset class structures will be reviewed periodically, approximately every two years.

4. Any changes to the asset class structure must be approved by the Board.

C. Rebalancing

1. In general, cash flows will be allocated to move asset classes toward target weights and shall be prioritized according to the Asset Allocation Implementation Plan detailed in Appendix B1.

2. Staff shall submit a rebalancing recommendation to the Consultant at least annually based on consideration of the entire portfolio, and additionally as soon as practicable when an asset class breaches an established rebalancing range or when deemed prudent by Staff or Consultant.

3. The allocations to Cash and Short-Term Investment Grade bonds are designed to provide liquidity during periods of investment market stress and are not required to be rebalanced to target if deemed prudent by Staff and Consultant.

4. Rebalancing recommendations should consider expected future cash flows, investment liquidity, market volatility, and costs.

5. Transition management shall be used when prudent to minimize transition costs.

6. Staff is responsible for implementing the rebalancing plan following Consultant approval.

7. Rebalancing recommendations and activity shall be reported to the Board and the IAC.


1. DPFP will not commit capital to any direct private market investments or co-investments that are tied to a single company. This restriction does not prevent DPFP from holding direct investments that result from the dissolution of a private market fund.

2. DPFP will not commit capital to any private market fund if such commitment would likely result in DPFP holding greater than a 10% interest in the fund.
3. DPFP will not commit capital to any private market fund if such commitment exceeds 2% of the total market value of the DPFP investment portfolio.

4. DPFP will not commit to any private market fund if total commitments to related funds (e.g., fund family) exceed 4% of the total market value of the DPFP investment portfolio.

5. The Board and Staff may consider and approve sales of private assets for less than the current net asset value of the asset reported to the Board. Factors affecting such a decision would include prices obtained after marketing the asset, liquidity, or overallocation to the relevant asset class.

Section 7 Investment Manager Search, Selection, and Monitoring

A. Investment Manager Search and Selection

1. The selection of investment managers will utilize a robust process to ensure an open and competitive universe, proper evaluation and due diligence, and selection of candidates that are best able to demonstrate the characteristics sought in a specific search.

2. Investment manager searches shall be based on one or more of the following reasons:
   a. Changes to the approved asset allocation;
   b. Changes to the approved asset class structure; or
   c. Replacement for terminated manager or manager of concern.

3. The IAC will advise regarding the search and selection process for investment managers.

4. Staff and Consultant shall define and document the search process, including evaluation criteria, prior to initiating the search process.

5. Each investment manager hiring recommendation shall be supported by a rationale that is consistent with the pre-established evaluation criteria.

6. Each hiring recommendation will generally include the following information:
   a. A description of the organization and key people;
   b. A description of the investment process and philosophy;
   c. A description of historical performance and future expectations;
   d. The risks inherent in the investment and the manager’s approach;
   e. The proper time horizon for evaluation of results;
   f. Identification of relevant comparative measures such as benchmarks and/or peer samples;
   g. The suitability of the investment within the relevant asset class; and
   h. The expected cost of the investment.
7. Alternative Investments

The Board has adopted the definition of “Alternative Investments” as outlined in Appendix D, which will be reviewed as part of the due diligence process for any new investment. Pursuant to Section 4.07 of Article 6243a-1, the vote of eight trustees is required to approve any Alternative Investment.

B. Investment Monitoring

1. Staff and Consultant(s) are responsible for ongoing monitoring of all Investment Managers using qualitative and quantitative factors as appropriate.

2. Qualitative factors may include:
   a. Consistent implementation of philosophy and process;
   b. Ownership changes or departure of key personnel;
   c. Assets under management at the firm and product level;
   d. Conflicts of interest;
   e. Material litigation or regulatory challenges involving the investment manager;
   f. Adequate reporting and transparency; and
   g. Material client-servicing problems.

3. Quantitative factors may include:
   a. Long-term (3-5 years) performance relative to assigned benchmarks;
   b. Unusually large short-term performance variance (over or under); and
   c. Risk metrics such as volatility, drawdown, and tracking error.

4. Staff and the Consultant will highlight Investment Manager concerns to the IAC and the Board and recommend an appropriate course of action.

Section 8 Risk Management

Staff will work within the parameters of this Investment Policy Statement to mitigate the risk of capital loss. By implementing this Policy, the Board has addressed:

A. Custodial Risk for both public and private holdings;5
B. Interest Rate Risk through fixed income duration and credit monitoring;6
C. Concentration and Credit Risk through asset allocation targets and ranges, rebalancing, and the monitoring of investment guidelines.

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5 Please review Custodian responsibilities in Section 5.
6 Please review Annual Review of IPS and Investment Manager strategy guidelines reviewed and approved by Staff.
Section 9  Furthermore, through this Policy, Staff has established the necessary criteria to monitor the Custodian, Consultant(s), and Investment Managers, such that DPFP controls and manages interest rate, custody, concentration, and credit risks.  Approval and Effective Date

The Investment Policy Statement was originally adopted by the Board on April 14, 2016 and was subsequently amended and adopted on the following dates.

December 14, 2017
January 10, 2019

APPROVED on January 10, 2019 by the Board of Trustees of the Dallas Police and Fire Pension System.

[signature]

William F. Quinn
Chairman

Attested:

[signature]

Kelly Gottschalk
Executive Director
Appendix A – Asset Class Descriptions

DPFP investment assets are prudently diversified to optimize expected returns and control risks. Assets can generally be categorized into four functional categories of Growth, Income, Inflation Protection, and Risk Mitigation

A. Growth Assets
   1. Role: Capital appreciation, primary driver of long-term total return
   2. Investment Approach: Growth assets generally represent equity or equity-like interests in current and future income streams and capture long-term economic growth trends throughout the world.
   3. Risk Factors: The cost of the high expected long-term returns is higher expected volatility. Growth assets are highly sensitive to economic conditions and are subject to potential loss during economic downturns, rising/unexpected inflation, and rising interest rates.
   4. Asset Classes
      a. Global Equity represents publicly traded stock holdings of companies across the globe. Liquidity is a key benefit as stocks can be traded daily. Foreign currency volatility can be a source of risk and return.
      b. Emerging Market Equity represents publicly traded stock holdings of companies located in or highly dependent on developing (emerging) countries. Emerging market equity is expected to capture the higher economic growth of emerging economies and provide higher long-term returns than global equity coupled with higher volatility. Foreign currency volatility can be a source of risk and return.
      c. Private Equity refers to investments in private companies (direct investments) or funds that hold investments in private companies or securities that are not typically traded in the public markets. Frequently these investments need “patient” capital to allow time for growth potential to be realized through a combination of capital investment, management initiatives, or market development. Private equity is expected to provide higher long-term returns than global equity, but illiquidity is a key risk as investment contributions may be locked up for several years.

B. Income Assets
   1. Role: Current income and moderate long-term appreciation
   2. Investment Approach: Income assets are generally fixed claims on assets or income streams of an issuer (e.g. government, corporation, asset-backed securities).
   3. Risk Factors: The primary risk for Income assets is the failure of the borrower to make timely payments of interest and principal (credit risk) and the price volatility related to credit risk. Bonds with greater credit risk (i.e., bonds with lower credit ratings) are typically less liquid than higher quality bonds.
4. Asset Classes
   a. **Global Bonds** includes sovereign and corporate debt issued by countries and companies located throughout the world in local currency and U.S. dollars. Expanding the investable universe beyond the U.S. provides a diversified source of returns.
   
b. **Bank Loans** are like high yield bonds in that both represent debt issuers with higher credit risk. Compared to high-yield bonds, bank loans typically have higher seniority in the capital structure, which has historically resulted in much higher recovery following default.
   
c. **High Yield Debt** refers to bonds with higher credit risk and lower credit ratings than investment-grade corporate bonds, Treasury bonds and municipal bonds. Because of the higher risk of default, these bonds pay a higher yield than investment grade bonds.
   
d. **Emerging Market Debt** (EMD) refers to bonds issued by developing countries or corporations based in developing countries. EMD bonds can be denominated in U.S. Dollars or local currency. The primary risk factor is credit quality, but interest rates and foreign currency are also factors.
   
e. **Private Debt** refers to non-bank direct lending arrangements. Features are similar to bank loans with somewhat higher credit risk and yields. Investments are typically structured in a private market vehicle with limited liquidity. Private debt may be included within the private equity asset class in the strategic asset allocation.

C. **Inflation Protection (Real Assets)**
   1. Role: Current income, inflation protection, diversification
   2. Investment Approach: Generally, ownership in physical assets.
   3. Risk Factors: Real Assets may not provide the desired inflation protection. Loss of principal is also a risk. Foreign assets are also subject to currency movements against the U.S. dollar.
   4. Asset Classes
      a. **Real Estate** includes investments in office buildings, apartments, retail, raw land, and development projects.
      b. **Natural Resources** broadly refers to anything mined or collected in raw form but may include assets subject to further processing. Typical assets include permanent and row crops, timber, minerals, and metals.
      c. **Infrastructure** refers to investments in physical systems that support world economies. Typical investments include transportation, communication, utilities (electricity, gas, water, sewage).
D. Risk Mitigation

1. Role: Liquidity to fund benefit payments and other cash flow needs, capital preservation, modest current income, diversification to growth assets.

2. Investment Approach: Cash equivalents or high-quality domestic bonds.

3. Risk Factors: Risks are substantially lower for risk mitigation assets but may include modest exposure to credit or interest rates (duration).

4. Asset Classes
   a. **Cash Equivalents**
   b. **Short Term Investment Grade Bonds** have moderate interest rate risk.
   c. **Investment Grade Bonds** including bonds and notes issued by the U.S. Treasury, U.S. Government Agencies, state and local municipalities, corporations, or other issuers with similar conservative risk profiles. Risk factors include duration and credit.
Appendix B – Strategic Asset Allocation and Rebalancing Ranges

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Policy Benchmark</th>
<th>Target Weight</th>
<th>Minimum Weight</th>
<th>Maximum Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity</strong></td>
<td></td>
<td>55%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Equity</td>
<td>MSCI ACWI IMI Net</td>
<td>40%</td>
<td>18%</td>
<td>48%</td>
</tr>
<tr>
<td>Emerging Markets Equity</td>
<td>MSCI Emerging Markets IMI Net</td>
<td>10%</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>Cambridge Associates US Private Equity Index 1Q Lag</td>
<td>5%</td>
<td>N/A^3</td>
<td>N/A^3</td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td></td>
<td>35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>91 Day T-Bills</td>
<td>3%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Short Term Investment Grade Bonds</td>
<td>Bloomberg Barclays US Treasury 1-3 Year</td>
<td>12%</td>
<td>5%</td>
<td>15%</td>
</tr>
<tr>
<td>Investment Grade Bonds^2</td>
<td>Bloomberg Barclays Aggregate</td>
<td>4%</td>
<td>2%^2</td>
<td>6%</td>
</tr>
<tr>
<td>High Yield Bonds</td>
<td>Bloomberg Barclays Global High Yield</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Bank Loans</td>
<td>S&amp;P/LSTA Leveraged Loan</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Global Bonds</td>
<td>Bloomberg Barclays Global Aggregate</td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Emerging Market Debt^2</td>
<td>50% JPM EMBI/50% JPM GBI-EM</td>
<td>4%</td>
<td>2%^2</td>
<td>6%</td>
</tr>
<tr>
<td>Private Debt</td>
<td>Barclays Global HY + 2% (Rolling 3 Mo.)</td>
<td>0%</td>
<td>N/A^3</td>
<td>N/A^3</td>
</tr>
<tr>
<td><strong>Real Assets</strong></td>
<td></td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>NCREIF Property Index 1Q Lag</td>
<td>5%</td>
<td>N/A^3</td>
<td>N/A^3</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>NCREIF Farmland Total Return Index 1Q Lag</td>
<td>5%</td>
<td>N/A^3</td>
<td>N/A^3</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>S&amp;P Global Infrastructure (Rolling 3 Mo.)</td>
<td>0%</td>
<td>N/A^3</td>
<td>N/A^3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 – The investment portfolio is undergoing a transition from a legacy allocation with substantial exposure to illiquid private market assets to a more traditional allocation profile. In October 2018, the Board approved a new long-term asset allocation, recognizing that implementation would be subject to the gradual unwinding of private market assets. In November 2018, the Board approved an asset allocation implementation plan to prioritize the reallocation of cash distributions from private market assets. Initial variances to long-term allocation targets may be quite large but are expected to gradually diminish. Rebalancing ranges have been established to accommodate current variances to target and will be tightened over time as appropriate.

2 – At the time of IPS adoption allocations to Investment Grade Bonds and Emerging Market Debt were below the minimum weight. The investment manager hiring for Investment Grade Bonds had not been completed and the Emerging Market Debt allocation was under review by the Board. These allocations will be funded in accordance with the asset allocation implementation plan in detailed in Appendix B1.

3 – Rebalancing Ranges are not established for illiquid asset classes.
Appendix B1 – Asset Allocation Implementation Plan

The investment portfolio is undergoing a transition from a legacy allocation with substantial exposure to illiquid private market assets to a more traditional allocation profile. In October 2018, the Board approved a new long-term asset allocation, recognizing that implementation would be subject to the gradual unwinding of private market assets. In November 2018, the Board approved the following implementation plan to prioritize the reallocation of cash distributions from private market assets.

### Order of Reallocation

Allocate up to Target, then proceed to next asset class

1. Safety Reserve – Cash
2. Safety Reserve – Short-Term Investment Grade Bonds
3. Global Equity, only if current exposure is less than 22% of DPFP\(^1\)
4. Emerging Market Equity, only if current exposure is less than 2.5% of DPFP\(^2\)
5. Investment Grade Bonds
6. Global Bonds
7. Bank Loans
8. High Yield Bonds
9. Global Equity above 22%, contributions limited to 6% per year.
10. Emerging Markets Debt
11. Emerging Markets Equity above 2.5%, contributions limited to 2.5% per year
12. Private Real Estate (aggregate illiquid exposure must be under 20%)
13. Private Equity (aggregate illiquid exposure must be under 15%)

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1 – Global Equity target weight is 40%. If current exposure is more than 22% proceed to next asset class in the matrix. The reallocation framework is designed to maintain at least the mid-2018 exposure to public equity, prior to increasing fixed-income exposure.

2 – Emerging Market Equity Target weight is 10%. If current exposure is more than 2.5% proceed to next asset class in the matrix. The reallocation framework is designed to maintain at least the mid-2018 exposure to public equity, prior to increasing fixed-income exposure.
Appendix C – Investment Consultant Reporting Requirements

The investment consultant is required to provide the Board with quarterly investment information for portfolio monitoring purposes. Generally, these are as follows:

**Quarterly (due in advance of the meeting)**

1. DPFP’s actual asset allocation relative to its target asset allocation as defined in Appendix B.
2. DPFP’s return relative to its Policy Benchmark return and other public pension funds.
3. DPFP’s risk adjusted returns relative to the policy and other public pension funds.
4. Asset class performance relative to the benchmarks as defined in Appendix B.
5. Individual Investment Manager returns relative to their stated benchmark.
6. Report will specifically acknowledge any underperforming Investment Managers.
7. Any reportable events affecting any of DPFP’s Investment Managers.
Appendix D – Alternative Investments

Alternative Assets means any investment that is not a Traditional Asset.

Traditional Assets include:

1. **Common Stocks**: publicly traded securities representing ownership in a corporation; also known as publicly-traded equity. Examples include publicly traded equity shares of public companies, REITs, and ADRs. Regional examples include shares of companies domiciled in the US, non-US developed markets and emerging markets.

2. **Bonds**: publicly-traded securities, the holders of which serve as creditors to either governmental or corporate entities. Examples include government bonds and corporate bonds, including senior bank loans. Regional examples include US government issued bonds, non-US international developed market issued bonds, and emerging market issued bonds. Credit examples include investment grade bonds and non-investment grade bonds (e.g. high yield bonds and bank loans).

3. **Cash Equivalents**: short-term investments held in lieu of cash and readily convertible into cash within a short time span. Examples include CDs, commercial paper, and Treasury bills.

Though an exhaustive list is not included, some of the defining characteristics of Alternative Assets and their vehicles include:

1. Private ownership vehicles
2. Liquidity-constrained, and a lock-up of capital for extended time periods (one-year or longer)
3. Use of leverage
4. Ability to take short positions
5. Use of derivatives

The Board recognizes that certain investments may have characteristics and underlying securities that could be classified as both a Traditional and Alternative Investment. On any new investment recommendation, Staff and Consultant will categorize an investment as either Alternative or Traditional based on these criteria, with a focus on liquidity of the investment, for the Board’s consideration.
DISCUSSION SHEET

ITEM #C7

**Topic:** Investment Advisory Committee

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.074 of the Texas Government Code.

**Discussion:** One of the appointed Investment Advisory Committee (IAC) members is no longer able to serve on the committee. The Board may discuss possible candidates to serve on the Investment Advisory Committee.
DISCUSSION SHEET

ITEM #C8

Topic: Lone Star Investment Advisors Update

Discussion: Investment Staff will update the Board on recent performance and operational developments with respect to DPFP investments in funds managed by Lone Star Investment Advisors.
Topic: Portfolio Update

Discussion: Investment Staff will brief the Board on recent events and current developments with respect to the investment portfolio.
Portfolio Update

January 10, 2019
# Portfolio Allocation

**DPFP Portfolio Allocation Date:** 28-Dec-2018

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount ( Millions )</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Income</strong></td>
<td>537</td>
<td>27.3%</td>
</tr>
<tr>
<td><strong>ST Core Bonds/IR+M</strong></td>
<td>252</td>
<td>12.8%</td>
</tr>
<tr>
<td><strong>Global Bonds Brandywine</strong></td>
<td>63</td>
<td>3.2%</td>
</tr>
<tr>
<td><strong>HY Bonds/ Loomis</strong></td>
<td>79</td>
<td>4.0%</td>
</tr>
<tr>
<td><strong>Bank Loans</strong></td>
<td>113</td>
<td>5.7%</td>
</tr>
<tr>
<td><strong>Loomis Sayles</strong></td>
<td>60</td>
<td>3.0%</td>
</tr>
<tr>
<td><strong>Pacific Asset Mgt.</strong></td>
<td>53</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>EM Debt/Ashmore</strong></td>
<td>19</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Private Debt</strong></td>
<td>11</td>
<td>0.6%</td>
</tr>
<tr>
<td><strong>Highland Crusader</strong></td>
<td>3</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Riverstone</strong></td>
<td>9</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Cash</strong></td>
<td>38</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Real Assets</strong></td>
<td>695</td>
<td>35.4%</td>
</tr>
<tr>
<td><strong>Natural Resources</strong></td>
<td>172</td>
<td>8.7%</td>
</tr>
<tr>
<td><strong>Forest Inv. Assoc.</strong></td>
<td>9</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>BTG Pactual</strong></td>
<td>33</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Hancock</strong></td>
<td>130</td>
<td>6.6%</td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td>57</td>
<td>2.9%</td>
</tr>
<tr>
<td><strong>JPM/TRG AIRRO I</strong></td>
<td>20</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>JPM/TRG AIRRO II</strong></td>
<td>4</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>JPM Global Maritime</strong></td>
<td>33</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Real Estate</strong></td>
<td>467</td>
<td>23.7%</td>
</tr>
</tbody>
</table>

**Total Equity**  
- **Total Equity**  
- **Global Equity**  
- **Boston Partners**  
- **Manulife**  
- **OFI**  
- **Walter Scott**  
- **EM Equity/ RBC**  
- **Private Equity**  
- **Hudson Clean Energy**  
- **Huff Alternative**  
- **Huff Energy**  
- **Industry Ventures**  
- **Lone Star CRA**  
- **Lone Star Growth Cap.**  
- **Lone Star Op. Fund V**  
- **Lone Star North TX Op. Fund**  
- **Yellowstone Energy**  

**Real Estate**  
- **Real Estate**  
- **JPM/TRG AIRRO I**  
- **JPM/TRG AIRRO II**  
- **JPM Global Maritime**  

**Safety Reserve**  
- **Safety Reserve**  
- **ST Core Bonds/IR+M**  
- **Cash**  

Source: JP Morgan Custodial Data, Staff Calculations
## DFPFP Asset Allocation Implementation Plan

<table>
<thead>
<tr>
<th>Asset Class Funding Priority</th>
<th>12/28/18</th>
<th>Target</th>
<th>Variance</th>
<th>12/28/18</th>
<th>Target</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Safety Reserve - Cash</td>
<td>1.9%</td>
<td>3.0%</td>
<td>-1.1%</td>
<td>38</td>
<td>59</td>
<td>-21</td>
</tr>
<tr>
<td>2 Safety Reserve - ST IG Bonds</td>
<td>12.8%</td>
<td>12.0%</td>
<td>0.8%</td>
<td>252</td>
<td>236</td>
<td>16</td>
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<tr>
<td>3 Minimum Global Equity</td>
<td>20.3%</td>
<td>22.0%</td>
<td>-1.7%</td>
<td>398</td>
<td>432</td>
<td>-34</td>
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<tr>
<td>4 Minimum Emerging Mkt Equity</td>
<td>2.3%</td>
<td>2.5%</td>
<td>-0.2%</td>
<td>46</td>
<td>49</td>
<td>-3</td>
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<tr>
<td>5 Investment Grade Bonds</td>
<td>0.0%</td>
<td>4.0%</td>
<td>-4.0%</td>
<td>0</td>
<td>79</td>
<td>-79</td>
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<tr>
<td>6 Global Bonds</td>
<td>3.2%</td>
<td>4.0%</td>
<td>-0.8%</td>
<td>63</td>
<td>79</td>
<td>-15</td>
</tr>
<tr>
<td>7 High Yield Bonds</td>
<td>4.0%</td>
<td>4.0%</td>
<td>0.0%</td>
<td>79</td>
<td>79</td>
<td>1</td>
</tr>
<tr>
<td>8 Bank Loans</td>
<td>5.7%</td>
<td>4.0%</td>
<td>1.7%</td>
<td>113</td>
<td>79</td>
<td>34</td>
</tr>
<tr>
<td>9 New Global Equity</td>
<td>0.0%</td>
<td>18.0%</td>
<td>-18.0%</td>
<td>0</td>
<td>354</td>
<td>-354</td>
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<tr>
<td>10 Emerging Mkt Debt</td>
<td>1.0%</td>
<td>4.0%</td>
<td>-3.0%</td>
<td>19</td>
<td>79</td>
<td>-60</td>
</tr>
<tr>
<td>11 New Emerging Mkt Equity</td>
<td>0.0%</td>
<td>7.5%</td>
<td>-7.5%</td>
<td>0</td>
<td>147</td>
<td>-147</td>
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<tr>
<td>12 Real Estate</td>
<td>23.7%</td>
<td>5.0%</td>
<td>18.7%</td>
<td>467</td>
<td>98</td>
<td>368</td>
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<tr>
<td>13 Private Equity</td>
<td>12.7%</td>
<td>5.0%</td>
<td>7.7%</td>
<td>250</td>
<td>98</td>
<td>152</td>
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<tr>
<td>14 Natural Resources</td>
<td>8.7%</td>
<td>5.0%</td>
<td>3.7%</td>
<td>172</td>
<td>98</td>
<td>74</td>
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<tr>
<td>15 Infrastructure</td>
<td>2.9%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>57</td>
<td>0</td>
<td>57</td>
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<tr>
<td>16 Private Debt</td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.6%</td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>0.0%</td>
<td>1,965</td>
<td>1,965</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: JP Morgan Custodial Data, Staff Calculations
## Contribution to Return

### DPFP Estimated Contribution to Return

<table>
<thead>
<tr>
<th>Year to date through November 2018</th>
<th>Avg. Wt.</th>
<th>Return</th>
<th>Contr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate Managers</td>
<td>22.85%</td>
<td>6.52%</td>
<td>1.44%</td>
</tr>
<tr>
<td>Bank Loans</td>
<td>5.50%</td>
<td>3.61%</td>
<td>0.19%</td>
</tr>
<tr>
<td>Short Term Core Bonds</td>
<td>8.50%</td>
<td>1.09%</td>
<td>0.16%</td>
</tr>
<tr>
<td>Private Debt</td>
<td>0.53%</td>
<td>11.59%</td>
<td>0.06%</td>
</tr>
<tr>
<td>Cash</td>
<td>3.95%</td>
<td>1.68%</td>
<td>0.06%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>11.94%</td>
<td>0.13%</td>
<td>0.02%</td>
</tr>
<tr>
<td>High Yield</td>
<td>4.02%</td>
<td>-0.88%</td>
<td>-0.04%</td>
</tr>
<tr>
<td>EM Debt</td>
<td>0.96%</td>
<td>-6.50%</td>
<td>-0.06%</td>
</tr>
<tr>
<td>Global Asset Allocation</td>
<td>2.59%</td>
<td>-0.08%</td>
<td>-0.08%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>2.95%</td>
<td>-4.51%</td>
<td>-0.13%</td>
</tr>
<tr>
<td>Global Bonds</td>
<td>3.19%</td>
<td>-5.60%</td>
<td>-0.18%</td>
</tr>
<tr>
<td>Emerging Markets Equity</td>
<td>2.31%</td>
<td>-8.45%</td>
<td>-0.20%</td>
</tr>
<tr>
<td>Global Equity</td>
<td>21.63%</td>
<td>-1.67%</td>
<td>-0.35%</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>9.03%</td>
<td>-8.72%</td>
<td>-0.81%</td>
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<tr>
<td>Interaction/plug</td>
<td>0.04%</td>
<td></td>
<td>0.02%</td>
</tr>
<tr>
<td>Dallas Police And Fire Group Trust</td>
<td>100.00%</td>
<td>0.07%</td>
<td>0.07%</td>
</tr>
</tbody>
</table>

Source: JP Morgan Custodial Data, Staff Calculations
### 2019 Investment Review Calendar

<table>
<thead>
<tr>
<th>Month</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>• Real Estate: Staff review of Vista 7, King’s Harbor, and Museum Tower</td>
</tr>
<tr>
<td>February</td>
<td>• Real Estate: AEW presentation</td>
</tr>
<tr>
<td></td>
<td>• Global Equity Structure Review (Staff/Meketa)</td>
</tr>
<tr>
<td>March</td>
<td>• Real Estate: presentations by Hearthstone and Clarion</td>
</tr>
<tr>
<td>April</td>
<td>• Natural Resources: Hancock Presentation, Staff review of Forest Inv. Assoc. and BTG Pactual</td>
</tr>
<tr>
<td>May</td>
<td>• Private Equity/Debt: Staff review of Lone Star, Huff, Hudson, Industry Ventures, Riverstone, and Highland Crusader</td>
</tr>
<tr>
<td>June</td>
<td>• Infrastructure: Staff review of AIRRO (Asia Infrastructure) and JPM Maritime</td>
</tr>
<tr>
<td>2H19</td>
<td>• Global Equity Manager Reviews</td>
</tr>
<tr>
<td></td>
<td>• Fixed Income Manager Reviews</td>
</tr>
</tbody>
</table>
DISCUSSION SHEET

ITEM #C10

Topic: Private Asset Cash Flow Projection Update

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

Discussion: Staff will provide the quarterly update on the private asset cash flow projection model first discussed at the February Board meeting. The cash flow model projects estimated contributions to, and distributions from, private assets through the end of 2022. These estimates are intended to assist the Board in evaluating the expected time frame to reduce DPFP’s exposure to these assets and the implications for the overall asset allocation and expected portfolio risk and return.
Quarterly Private Asset Cash Flow Projection Update

January 10, 2019
Private Asset Bridge Chart – Since 9/30/16

In Millions

9/30/16 Private Assets: $1,559
Distributions: $(876)
Capital Calls: $236
Change in Market Value: $29
12/31/18 Private Assets: $947

Numbers may not foot due to rounding.
Private Asset Quarterly Cash Flows – Since 9/30/16

In Millions

<table>
<thead>
<tr>
<th></th>
<th>Distributions</th>
<th>Capital Calls</th>
<th>Cumulative Net Inflows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 16</td>
<td>$100</td>
<td>$-</td>
<td>$100</td>
</tr>
<tr>
<td>Q1 17</td>
<td>$-</td>
<td>$-</td>
<td>$200</td>
</tr>
<tr>
<td>Q2 17</td>
<td>$-</td>
<td>$-</td>
<td>$300</td>
</tr>
<tr>
<td>Q3 17</td>
<td>$-</td>
<td>$-</td>
<td>$400</td>
</tr>
<tr>
<td>Q4 17</td>
<td>$-</td>
<td>$-</td>
<td>$500</td>
</tr>
<tr>
<td>Q1 18</td>
<td>$-</td>
<td>$-</td>
<td>$600</td>
</tr>
<tr>
<td>Q2 18</td>
<td>$-</td>
<td>$-</td>
<td>$700</td>
</tr>
<tr>
<td>Q3 18</td>
<td>$-</td>
<td>$-</td>
<td></td>
</tr>
<tr>
<td>Q4 18</td>
<td>$-</td>
<td>$-</td>
<td></td>
</tr>
</tbody>
</table>
# Private Asset Quarterly Cash Flows – Q4 2018

## TOTAL CAPITAL CALLS & CONTRIBUTIONS

<table>
<thead>
<tr>
<th>Entity</th>
<th>Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riverstone</td>
<td>Capital Calls</td>
<td>$1,125,920</td>
</tr>
<tr>
<td>Real Estate</td>
<td>Real Estate Capital Calls</td>
<td>$698,200</td>
</tr>
<tr>
<td>Industry Ventures</td>
<td>Capital Call</td>
<td>$254,535</td>
</tr>
</tbody>
</table>

| Total                  |                           | $2,078,655  |

## TOTAL DISTRIBUTIONS

### Inflows $500k and Over

<table>
<thead>
<tr>
<th>Entity</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hancock</td>
<td>Sales Proceeds and Income</td>
<td>$10,196,502</td>
</tr>
<tr>
<td>Barings</td>
<td>Sales Proceeds</td>
<td>$3,750,000</td>
</tr>
<tr>
<td>Museum Tower</td>
<td>Condo Sales</td>
<td>$2,500,000</td>
</tr>
<tr>
<td>AEW</td>
<td>RCH Hotel Palomar Distribution</td>
<td>$1,985,000</td>
</tr>
<tr>
<td>Hudson</td>
<td>Sale of Hydroelectric Company</td>
<td>$1,017,026</td>
</tr>
<tr>
<td>Clarion</td>
<td>Tribute Operating Distributions</td>
<td>$1,750,000</td>
</tr>
<tr>
<td>Other</td>
<td>Combined less than $500k</td>
<td>$1,520,116</td>
</tr>
</tbody>
</table>

| Total                  |                           | $22,718,644 |

*Numbers may not foot due to rounding.*
# 2018 Actual vs. Projected Private Asset Cash Flows

2018 actual amounts compared to projections from February 2018 Board meeting.

## Sales and Distribution Activity

<table>
<thead>
<tr>
<th>Sales and Distribution Activity</th>
<th>2018 Actual</th>
<th>2018 Projected</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Asset total</td>
<td>140,826,543</td>
<td>252,063,964</td>
<td></td>
</tr>
<tr>
<td>Private Equity total</td>
<td>10,752,385</td>
<td>48,289,159</td>
<td>Sale of portfolio company did not occur as planned in 2018.</td>
</tr>
<tr>
<td>Private Debt total</td>
<td>2,981,119</td>
<td>4,332,609</td>
<td>Lower amount of distributions than expected.</td>
</tr>
<tr>
<td>Infrastructure total</td>
<td>1,354,654</td>
<td>-</td>
<td>Received unexpected distributions from Infra funds.</td>
</tr>
<tr>
<td>Natural Resources total</td>
<td>34,247,635</td>
<td>85,368,749</td>
<td>Timber and Vineyard sales projected for 2018 are expected to close in 2019.</td>
</tr>
<tr>
<td>Real Estate total</td>
<td>91,490,751</td>
<td>114,073,447</td>
<td>Sales projected for Hearthstone and Clarion did not occur in 2018. Higher sales than projected at Museum Tower</td>
</tr>
</tbody>
</table>

## Outflows - Capital Calls

<table>
<thead>
<tr>
<th>Outflows - Capital Calls</th>
<th>2018 Actual</th>
<th>2018 Projected</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Asset total</td>
<td>(37,395,205)</td>
<td>(39,726,796)</td>
<td>LSGC did not call 100% of unfunded as projected. Industry Ventures capital calls less than projected.</td>
</tr>
<tr>
<td>Private Equity total</td>
<td>(32,764,535)</td>
<td>(36,387,500)</td>
<td>Riverstone called more capital than projected.</td>
</tr>
<tr>
<td>Private Debt total</td>
<td>(1,740,721)</td>
<td>(823,355)</td>
<td></td>
</tr>
<tr>
<td>Infrastructure total</td>
<td>(226,749)</td>
<td>(2,515,941)</td>
<td>Projected 100% of unfunded to be called on JPM funds, which did not occur.</td>
</tr>
<tr>
<td>Natural Resources total</td>
<td>(940,500)</td>
<td>-</td>
<td>Operating expenses for timber asset not projected</td>
</tr>
<tr>
<td>Real Estate total</td>
<td>(1,722,700)</td>
<td>-</td>
<td>Holding costs at real estate property not projected</td>
</tr>
</tbody>
</table>

Numbers may not foot due to rounding.
Cumulative Actual and Projected Private Asset Net Inflows

Private asset cash flows projections are based on either in-process/planned sales, if available, or a gradual disposition through 2022.

*In Millions*

Cumulative Actual and Projected Private Asset Net Inflows

- Cumulative Net Inflows
- Current Projection
- Prior Quarter Projection
Private asset cash flows projections are based on either in-process/planned sales, if available, or a gradual disposition through 2022.

In Millions

<table>
<thead>
<tr>
<th></th>
<th>12/31/2018</th>
<th>12/31/2019</th>
<th>12/31/2020</th>
<th>12/31/2021</th>
<th>12/31/2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Projection</td>
<td>$935</td>
<td>$587</td>
<td>$340</td>
<td>$142</td>
<td>$81</td>
</tr>
<tr>
<td>Actual</td>
<td>$947</td>
<td>$649</td>
<td>$356</td>
<td>$158</td>
<td>$81</td>
</tr>
<tr>
<td>Prior Projected</td>
<td>$935</td>
<td>$587</td>
<td>$340</td>
<td>$142</td>
<td>$81</td>
</tr>
</tbody>
</table>
Private asset cash flows projections are based on either in-process/planned sales, if available, or a gradual disposition through 2022.

**In Millions**

<table>
<thead>
<tr>
<th>Date</th>
<th>Legacy NAV (M)</th>
<th>% of Private Portfolio</th>
<th>% of DPFP Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/18</td>
<td>$524</td>
<td>55%</td>
<td>27%</td>
</tr>
<tr>
<td>12/31/19</td>
<td>$405</td>
<td>62%</td>
<td>20%</td>
</tr>
<tr>
<td>12/31/20</td>
<td>$225</td>
<td>63%</td>
<td>11%</td>
</tr>
<tr>
<td>12/31/21</td>
<td>$59</td>
<td>37%</td>
<td>3%</td>
</tr>
<tr>
<td>12/31/22</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Forward Liquidity Projection

Private asset cash flows projections are based on either in-process/planned sales, if available, or a gradual disposition through 2022.

Based on projected year-end NAVs provided by actuary in 1/1/2018 Actuarial Report
Assumes 100% of private asset proceeds are reinvested into liquid investments

<table>
<thead>
<tr>
<th>Date</th>
<th>Private Asset %</th>
<th>Liquid Asset %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>48.0%</td>
<td>52.0%</td>
</tr>
<tr>
<td>12/31/2019</td>
<td>31.9%</td>
<td>68.1%</td>
</tr>
<tr>
<td>12/31/2020</td>
<td>17.8%</td>
<td>82.2%</td>
</tr>
<tr>
<td>12/31/2021</td>
<td>8.0%</td>
<td>92.0%</td>
</tr>
<tr>
<td>12/31/2022</td>
<td>4.1%</td>
<td>95.9%</td>
</tr>
</tbody>
</table>

Target Private Allocation: 15%
**DISCUSSION SHEET**

**ITEM #C11**

**Topic:** Real Estate Overview

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

**Discussion:** Staff will provide an overview of the asset and a review of the strategy for Vista Ridge 7 managed by Bentall Kennedy, Kings Harbor managed by L&B, and Museum Tower, which is internally managed by staff.
DISCUSSION SHEET

ITEM #C12

**Topic:** Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation, or any other legal matter in which the duty of the attorneys to DFPF and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.

**Discussion:** Counsel will brief the Board on these issues.
ITEM #D1

Topic: Reports and concerns of active members and pensioners of the Dallas Police and Fire Pension System

Discussion: This is a Board-approved open forum for active members and pensioners to address their concerns to the Board and staff.
Topic: Executive Director’s report

a. Open Records Requests
b. Pension Obligation Bond Funding Exploration

Discussion: The Executive Director will brief the Board regarding the above information.