MWRA EMPLOYEES' RETIREMENT BOARD MEETING

AGENDA

Thursday, September 24, 2020 10:00 a.m.
MWRA, 2 Griffin Way
Via Remote Participation

Item 1 10:00 a.m. Meeting called to order

OLD BUSINESS

Item 2 Standing Committee Reports
- i. By-Laws Committee: Member Kevin McKenna
- ii. Human Resources Committee: Member Thomas J. Durkin, Member Frank Zecha
- iii. Special Committee, Stipend: Chair James M. Fleming, Member Kevin McKenna
- iv. Job Review Committee: Member James M. Fleming; Member Thomas J. Durkin

NEW BUSINESS

Item 3 Approval of Minutes – VOTE
- a) August 27, 20202
- b) September 9, 2020

Item 4 Approval of Warrants – VOTE
- a) Warrant 9-2020
- b) Warrant 9-2020A – Payroll

Item 5 Approval of Monthly Transfers 9-2020 – VOTE

Item 6 Approval of 12(2)(d) Retirement for Robert Maxwell spouse of Michelle Maxwell DOD 8/11/2020 – VOTE

Item 7 Actuarial Services RFP: - 3 responses were received by the deadline – Stone Consulting, KMS Actuaries, and Segal – interviews/presentations to take place at the October meeting

Item 8 Presentations for Accounting & Audit Services via telephone
- 10:30 a.m. a) KPMG
- 10:45 a.m. b) Marcum LLP
- 11:00 a.m. c) CliftonLarsonAllen LLP

Item 9 Manager Due Diligence Presentations via telephone
- 11:30 a.m. a) TA Realty
- 11:45 a.m. b) Kayne Capital

Item 10 NEPC
- a) Flash Report as of 8/31/2020
- b) Investment Policy Statement Redlined
- c) Investment Policy Statement – VOTE
- d) CarVal Investment Period Extension Request/Proposal
- e) Coho Partners – Updated Schedule C

..FOR YOUR INFORMATION and REVIEW ....

Item 99-1	PERAC Memo #27/2020 re. Regular Compensation and Creditable Service Status of Certain Leaves
Item 99-2	PERAC Memo #28/2020 re. Tobacco Company List
Item 99-3	TerraCap News Release
Item 99-4	Mass Retirees Seeking Contact Information

Date of next scheduled Retirement Board meeting is Thursday, October 29, 2020, 10:00 a.m., Chelsea

MASSACHUSETTS WATER RESOURCES AUTHORITY EMPLOYEES' RETIREMENT BOARD MEETING AUGUST 27, 2020

A meeting of the MWRA Employees' Retirement Board was held via conference call on Thursday, August 27, 2020, due to safety concerns regarding the Coronavirus. The toll-free number for the call was included on the public meeting notice posted on the MWRA Employees' Retirement System's and Secretary of State's websites. Participating in the meeting by conference call were James M. Fleming, Thomas J. Durkin, Kevin McKenna, Andrew Pappastergion, Frank Zecha, Carolyn Russo, Julie McManus, and Sebastian Grzejka. Chairman Fleming called the meeting to order at 10:13 a.m.

1) Call the meeting to order

2) Committee Reports
By-Laws Committee: No Report
Human Resources Committee: No Report
Special Committee, Stipend: No Report
Job Review Committee: No Report

3) Approval of July 30, 2020 Minutes – VOTE

On motion by Mr. Pappastergion and seconded by Mr. McKenna:
VOTED
to approve the minutes of the June 25, 2020 meeting as presented. 5 -0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

4) Approval of Warrants – VOTE
a) 8-2020 Warrant
b) 8-2020A – Retiree Payroll

On omnibus motion by Mr. Pappastergion and seconded by Mr. Durkin:
VOTED
to approve Warrant 8-2020 and Warrant 8-2020A – Retiree Payroll as presented. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

5) Approval of Monthly Transfers 8/2020 – VOTE

On motion by Mr. Pappastergion and seconded by Mr. Durkin:
VOTED
to approve Monthly Transfers 8/2020 as presented. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

6) Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE

a) Russell Murray DOR 7/25/2020
b) Brian Linnane DOR 7/28/2020
c) Donald Taylor, Jr. DOR 7/30/2020
d) Francis Coleman DOR 7/31/2020
e) Paul Berry DOR 8/1/2020
f) Richard Milewski DOR 8/1/2020
g) Mark Niederberger DOR 8/1/2020
h) Mark Johnson DOR 8/15/2020
i) Donald Martel DOR 8/15/2020

Mr. Durkin noted that certain members had not elected Option C, but had a spouse named as a beneficiary. The Retirement Coordinator noted that in one case, due to the relatively young age of the retiree, that he elected B rather than take the option C reduction over a longer period, and in another case that the decision was due to other financial circumstances, but that in all cases that the members had been counseled properly.

On motion by Mr. Pappastergion and seconded by Mr. McKenna
VOTED
to approve the above-listed July/August 2020 retirements. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

7) Acceptance of Section 7 Retirement re. Sandra Simmler – VOTE

On motion by Mr. McKenna and seconded by Mr. Pappastergion
VOTED
to accept the application filed by Sandra Simmler for Accidental Disability Retirement and to submit the application to PERAC for appointment of a medical panel. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

8) Accounting Services RFP: - 3 responses were received by the deadline – CliftonLarsonAllen LLP, KPMG, and Marcum LLP

On motion by Mr. Durkin and seconded by Mr. Pappastergion:
VOTED
to request that each of the Accounting and Audit Services RFP respondents come before the Board via conference call for interviews at the September meeting. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

9) International Growth Equity Manager Presentations via telephone
   a) Ballie Gifford
   b) JO Hambro
   c) Schroders (Presentation and annual Due Diligence)

Baillie Gifford representatives Ryan Fitzpatrick and Nick Thomas presented the International Growth Fund. They described the firm as having a long-term focus, with an approximate portfolio turnover of 10%, and noted that PRIT and the Massport Retirement System are existing clients. They reported very little overlap with the benchmark, and target 15% sustained long term growth, with a relatively high exposure to China. They seek diversity in their team, and actively recruit candidates from fields unrelated to finance. The Mutual Fund K shares carry a 60 basis point fee structure. Mr. McKenna asked about the Spotify holdings. Baillie Gifford responded that the fund made the purchase of the Swedish Company prior to its IPO.

J.O. Hambro representatives Nudgem Richyal and Greg Mulready presented the International Select product. Mr. Christopher Lees and Mr. Richyal, who manage the fund, are based in Singapore, but J.O. Hambro has its US headquarters in Boston. J.O. Hambro is 100% owned by parent company Pendel Group Unlimited, based in Australia. Mr. Mulready commented that the fund management teams are autonomous. Mr. McKenna questioned whether the teams may manage or oversee more than one fund, and Mr. Mulready responded that no team manages more than three funds. The two-person team managing the International Select fund does not have its own research team, but rather relies on research from J.O. Hambro. They stated the objective of the fund is to attain better than peer returns with lower volatility. Analysis of the particular stock, of the sector, and of the country/currency contribute to the portfolio construction process. Although J. O. Hambro does not currently have any Massachusetts public fund clients, Mr. Mulready's prior employment at LMCG provides experience with the PERAC regulatory requirements as well as statutory restrictions. The team employs an equal weight strategy to remove emotion from the decision-making process. The fees are either 75 basis points, or 55 basis point with a 15% performance fee.

John Chisholm and Vivian Quaye presented on behalf of Schroders, the incumbent International Growth manager for MWRAERS. Mr. Chisholm discussed the key pillars of value, breadth & depth of research, risk framework, and durable alpha. The Schroders International Alpha Trust is managed with long-term investors in mind, and has been ranked in the top 1% in 5-year performance, demonstrating a repeatability of approach. Mr. Chisholm stated that Schroders lowered their fees for the trust product to 55 basis points, while continuing to deliver top-tier performance for the System.

Mr. Chisholm then presented Schroders annual due diligence review. The Board reviewed and compared Schroders' performance with the Retirement System's investment goals and policies. The Board ensured that comprehensive written quarterly reports were filed with the Board and with PERAC and that these reports included a review of investment performance and relative performance, a review of the System's investments, and a report on current investment outlook or forecast as well as strategy for the future and key personnel staffing changes.

Mr. Zecha stated that it is his preference that Board staff conduct the meetings rather than NEPC. The Chair noted that he did not think NEPC's hosting the remote meetings affects his ability to run them, and stated that he would prefer that the September meeting be held in person, if permissible.

NEPC reviewed the three International Growth RFP finalists' presentations. Mr. Grzejka stated that Baillie Gifford has an experienced team with outstanding performance, and that the team creates its own research. He noted that there was on overlap of ten stocks in the Baillie Gifford and Schroders' portfolios. In regard to J.O. Hambro, Mr. Grzejka noted that the two people managing the fund rely on other J.O. Hambro researchers for their data. Mr. Grzejka stated that the Schroders International Alpha Fund has offered the System consistent performance, is the lowest cost option, and pairs well with SEG, so that retaining Schroders makes a lot of sense. Mr. Durkin noted that although he agrees with retaining Schroders, he is compelled by Baillie Gifford's approach, and asked whether there is a place in the portfolio, perhaps for a $5m allocation. Mr. Grzejka stated that given the growth of the portfolio overall, that perhaps a bit more of an allocation might be required to impact the portfolio. Mr. Fleming noted that Baillie Gifford has had excellent performance, but Mr. Grzejka said that the performance is “endpoint sensitive,” i.e., that although the performance has been strong through the most recent reporting period, it may not be sustainable, and that there may be some big up and down swings. Mr. Fleming stated that he is not convinced about splitting the Schroders allocation. Mr. Zecha said that either approach would be acceptable, while Mr. McKenna and Mr. Pappastergion agreed that Schroders has performed well for the System. Mr. Grzejka proposed that since LMCG Small Cap international has been underperforming, that the Board could fund an allocation to Baillie Gifford from LMCG. Mr. Zecha suggested a $7.5m allocation to Baillie Gifford.

On motion by Mr. Durkin and seconded by Mr. Pappastergion:
VOTED
Based upon the RFP analysis and recommendations of NEPC to retain Schroders at its current funding level of approximately $37m, and to hire Baillie Gifford with an allocation of $7.5 million taken from the LMCG Small Cap International account. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

Mr. Grzejka stated that he would work on new rebalance recommendations to take into account the new allocation to Baillie Gifford.

10) NEPC Presentation
   a) Flash Report as of 7/31/2020
   b) Investment Performance Report 3/31/2020
   c) PE Quarterly Performance Report 3/31/2020
   d) RE Quarterly Performance Report 3/31/2020
   e) Preliminary Investment Performance Report 6/30/2020

In regard to the Flash Report, Mr. Grzejka reported to the Board that the exit from PIMCO is complete. Coho has protected very well on the downside, but growth is still outperforming value. The fixed income managers have had outstanding performance, and UBS and Corbin have outperformed the PRIT Portfolio Completion Strategy (Hedge Fund). Mr. Grzejka cautioned that a resurgence of CoVid-19 and uncertainty surrounding the US election may weigh on results, and that NEPC is working on an analysis regarding these potential issues.

Mr. Fleming stated that he is very concerned about Kayne Anderson given their poor performance. Mr. Grzejka stated that the major shock to the energy sector in 2020 largely due to lower gas and oil use and restricted travel could not have been foreseen, and that NEPC anticipates more stress to the sector in the near term. Mr. Grzejka agreed that Kayne Anderson should be brought into the September meeting to discuss performance.

Mr. Zecha asked how the System is positioned for cash. Mr. Grzejka stated that he is expecting more capital calls as opportunities increase. The Executive Director stated that as of this morning, cash is at approximately $7m, which should be enough for two months including calls. Mr. Grzejka stated that he would like to prepare broad rebalance recommendations, and Mr. Fleming requested that he do so for the September meeting. Mr. Grzejka stated in regard to the quarterly PE report that he would expect some rebounding when the Q2 numbers are released. In accordance with the schedule, an Emerging Markets RFP will be next and a draft prepared by NEPC for the September meeting. Mr. McKenna requested that Mr. Grzejka be prepared to comment on what the Board has done well, or how it might improve, relative to the rebalance recommendations and timing, and to what degree the Board's active management has benefited the System, particularly in reference to how the System outperformed PRIT for the month of August given MWRAERS' historically more conservative approach.

11) Legal-written update

a) Board Policy on Liability and Indemnification of Retirement Board

b) DALA Decision regarding Richard Capozzi

The Board discussed the draft Liability and Indemnification Policy drafted by Board Counsel. Mr. Durkin requested that the Executive Director seek Counsel's clarification of policy item #2 as it pertains to the administration and operations of the System. While agreeing to requesting the clarification, Mr. Pappastergion stated that he is in support of Counsel's recommendation to adopt the policy, and suggested the Board's adoption in the interim, rather than waiting for the next meeting.

On motion by Mr. Pappastergion and seconded by Mr. Durkin:
<u>VOTED</u>
to adopt the Liability and Indemnification Policy as drafted by Board Counsel. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Mr. McKenna requested that Board Counsel be directed to file an appeal in regard to Mr. Capozzi to preserve the surviving spouse's rights. Mr. Fleming cited a successful case in which a retirement application was nullified to permit a member to take a job, and concurred that the Board should pursue further appeal.

On motion by Mr. McKenna and seconded by Mr. Pappastergion:
VOTED
to instruct Board Counsel to file with CRAB objections to the Decision of DALA in *Capozzi*. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

Mr. Fleming questioned whether the Authority would permit an in-person meeting in September. Mr. McKenna noted several "housekeeping" matters, such as Board signatures on warrants and minutes. Mr. Durkin said that the Authority may agree to permit it provided the numbers are kept within the State guidelines, masks are worn, and proper distance maintained. Mr. Durkin questioned how the Board can comply with open meeting laws while restricting numbers in attendance in accordance with the guidelines. Mr. Pappastergion suggested the Muster Room may be large enough and that Mr. Durkin approach Authority Administration as to whether an in-person meeting in September in the Muster Room is permissible. Mr. Grzejka stated that most of the investment managers are still under a "no fly" policy, so presentations would still be call-in only.

The Retirement Board was presented with the following informational documents in the meeting package:

Baillie Gifford International Growth Equity Manager Presentation
JO Hambro International Growth Equity Manager Presentation
Schroders International Growth Equity Manager Presentation
Schroders Due Diligence Presentation
NEPC Preliminary Flash Report as of 7/31/2020
NEPC Investment Performance Report 3/31/2020
NEPC PE Quarterly Performance Report 3/31/2020
NEPC RE Quarterly Performance Report 3/31/2020
NEPC Preliminary Investment Performance Report 6/30/2020
Cerberus Letter Regarding Unexpected Death of Ron Rawald
Important Update Regarding StepStone Group
MACRS Legal Panel Presentation
TerraCap Partners V August 2020

On motion by Mr. Durkin and seconded by Mr. Zecha:
VOTED
to adjourn and the meeting by conference call. Call was terminated at 12:42 p.m. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

The next regularly scheduled meeting of the MWRA Employees' Retirement Board will be held Thursday, September 24, 2020 at Massachusetts Water Resources Authority, 2 Griffin Way, Chelsea, Muster Room at 10:00 a.m., if permissible, otherwise, will be held by publicly advertised conference call.

James M. Fleming, Elected Member

Kevin McKenna, Elected Member

Andrew Pappastergion, Ex Officio

Thomas J. Durkin, Appointed Member

Frank Zecha, Fifth Member

MASSACHUSETTS WATER RESOURCES AUTHORITY EMPLOYEES' RETIREMENT SPECIAL BOARD MEETING SEPTEMBER 9, 2020

A special meeting of the MWRA Employees' Retirement Board was held via conference call on Wednesday September 9, 2020 at 1:00 p.m. to address the LMCG Emerging Markets wind-down, and the rebalance recommendations of NEPC. The toll-free number for the call was included on the public meeting notice posted on the MWRA Employees' Retirement System and Secretary of State's websites. Participating in the meeting by conference call were James M. Fleming, Thomas J. Durkin, Kevin McKenna, Frank Zecha, Carolyn Russo, Julie McManus, and Sebastian Grzejka. Mr. Pappastergion was absent due to vacation. Chairman Fleming called the meeting to order at 1:05 p.m.

Mr. Grzejka stated that the Board had been informed that Ms. Shannon Ericson, Portfolio Manager for the LMCG Emerging Markets fund, is leaving LMCG. Faced with the choice of doing a search for a replacement for Ms. Ericson or liquidating the fund, LMCG is liquidating the fund. It is NEPC's understanding at this time that LMCG will likely be winding down their entire global equity suite. LMCG has begun the process of transitioning the actively managed fund to an ETF index (Ticker EEM) as a placeholder. The expectation is that the transition will be executed over the next 2-3 weeks. Mr. Grzejka noted that the Board may put in a redemption request sooner, but that there will likely be some form of a holdback if we do, and that there will be a clean break if the redemption is completed after the assets are fully transitioned to the ETF.

In regard to the System's LMCG Small Cap International account, the Board which oversees the fund is expected to vote on its future on Friday September 11, 2020, but it is NEPC's understanding that the fund's management team will likely be dissolved, and there will be no manager on the account. The account has daily liquidity, so NEPC's recommendation is to fully liquidate the small cap account immediately, and to allocate the roughly $29,000,000 proceeds as follows, with any remainder going to cash:

Rhumbline S&P 500	$18,000,000
Schroders	$6,000,000
Garcia Hamilton	$4,000,000

On motion by Mr. Durkin and seconded by Mr. McKenna:
<u>VOTED</u>
to accept NEPC's recommendation to liquidate the LMCG Small Cap International account immediately and to allocate the funds as above to Rhumbline, Schroders, and Garcia Hamilton, with the remainder allocated to cash. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Mr. Durkin asked if LMCG is the System's only Emerging Markets manager, and whether the EM strategy still has a role in meeting the System's asset allocation objectives. Mr. Grzejka responded in the affirmative to both, and noted that although they are considered an international manager, the Board's newly hired manager, Baillie Gifford, may have up to a 50% exposure to emerging markets, and is therefore being recommended by NEPC as a natural placeholder for the LMCG Emerging Markets funds during the RFP process for a new EM manager, once the Board obtains PERAC approval of the Baillie Gifford investment.

On motion by Mr. Durkin and seconded by Mr. McKenna:
VOTED
to accept NEPC's recommendation to liquidate the LMCG Emerging Markets account after it has been fully transitioned to the ETF, and to allocate $25,000,000 to Baillie Gifford upon approval by PERAC, with any remainder allocated to cash. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

Mr. Grzejka presented for the Board's consideration a draft RFP advertisement for an Emerging Markets manager, given the immediate need for an LMCG replacement. Mr. Fleming requested that language be added to state that criteria may be changed and/or conditions waived at the Board's discretion. Mr. McKenna asked which countries are considered Emerging Markets. Mr. Grzejka stated that it is defined by MSCI and may change over time, but that generally China, Southeast Asia, Singapore, Eastern Europe, and Latin America are among those included. Mr. McKenna asked whether some Hedge Funds would be considered EM managers, because of liquidity concerns. Mr. Grzejka noted that the System may not have additional Hedge Fund exposure at this time, so NEPC will add a liquidity requirement to the RFP.

On motion by Mr. Zecha and seconded by Mr. Durkin:
VOTED
to approve NEPC's draft Emerging Markets RFP notice for public advertisement, once the two amendments are made. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes

Mr. Zecha noted that the Board's iPads are aging, and due to the release of new products, may no longer be supported. He raised the question of whether laptops may be the better alternative given the likelihood of the continuation of remote meetings. The Chair requested that the Executive Director consult with MWRA's IT staff for suitable options.

On motion by Mr. Zecha and seconded by Mr. Durkin:
VOTED
to adjourn and the meeting by conference call. Call was terminated at 1:34p.m. 4-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

The next regularly scheduled meeting of the MWRA Employees' Retirement Board will be held Thursday, September 24, 2020 at Massachusetts Water Resources Authority, 2 Griffin Way, Chelsea, Muster Room at 10:00 a.m., if permissible, otherwise, will be held by publicly advertised conference call.

James M. Fleming, Elected Member

Kevin McKenna, Elected Member

Andrew Pappastergion, Ex Officio

Thomas J. Durkin, Appointed Member

Frank Zecha, Fifth Member

NEPC, LLC

Firm: TA Realty
Strategy / Product: Core Property Fund ("CPF")
Client: MWRA

NEPC Manager Due Diligence Questionnaire - Update

Instructions

In support of our upcoming meeting we ask that you please complete this due diligence questionnaire. Please provide your responses in the form of brief descriptions, lists or tables added directly to this Word document.

Thank you for taking the time to complete this questionnaire. Please note that your response will be part of the NEPC Research Database.

Firm / Organization

1. **Have there been any changes in ownership or management in the past year?**

In January 2015, the owners of TA Realty sold a majority interest to Mitsubishi Estate Co., Ltd ("MEC") through its subsidiary MEC Global Partners America Inc. (formerly, Rockefeller Group TA Inc.), a global property owner, developer and investment manager. MEC owns 70% of the Firm and TA Realty's Founder and 15 Partners own 30% of the Firm. A substantial portion of this equity is held by key employees on a long-term basis and will be subject to repurchase upon termination of employment with the expectation that the repurchased equity will be transferred, sold or otherwise "recycled" to other key employees.

Prior to the transaction mentioned above, Michael Ruane owned the majority of the Firm; three additional Partners were also owners. As a result of the transaction, ownership included 16 Partners. Michael Ruane, who founded TA Realty, retained a minority interest of approximately 20% and continued to serve on the Firm's Investment Committee.

As a continuation of this long-term succession planning within the Firm, effective July 1, 2020, Michael Ruane shifted into a Senior Advisor role. As such, he is no longer a member of the Firm's Investment Committee. Over the next two years, his equity in TA Realty will be reduced with the expectation that his shareholding will be conveyed to the remaining Partners in the Firm, with the specific mechanism currently under review.

As of July 1, 2020, Partners Mike Haggerty and Jim Raisides were named Managing Partners and members of the Board of Managers. Mike Haggerty, Jim Raisides and Managing Partner Jim Buckingham will lead the company going forward as leaders of the Management and Investment Committees and members of the Board of Managers. As part of this transition, Tom Landry also rotated off the Managing Partner team and transitioned back to Partner of the firm responsible for key client accounts and strategic client initiatives within the Investor Relations group. In doing so, he maintains his role on the Management Committee in addition to remaining an integral part of the Firm's capital raising and client servicing efforts.

There are no additional changes currently planned, however the Firm will continue to actively manage succession planning.

2. **List firm AUM, net flows and accounts gained / lost for the past 5 years.**

TA REALTY
June 30, 2020

Firm Gains/Losses	Gross Firm AUM	Gains		Losses (1) (2)	
2015	$11,852.5	$2,439.9	48	$1,741.0	3
2016	$10,920.8	$1,032.5	15	$312.0	2
2017	$9,143.6	$173.5	13	$786.6	118
2018	$10,880.2	$1,902.0	52	$2,264.4	168
2019	$10,623.3	$1,261.3	59	$1,385.0	147
YTD 2020	$10,558.1	$596.7	14	$0.0	0

(1) Three of TA Realty's value-add, closed-end commingled funds, Funds VII, VIII and IX, completed final liquidations during 2017-2019. The amounts listed in the chart above reflect the individual investors and their original capital commitments in those funds. In addition, during 2015 two separate accounts transferred their assets and one account with one asset decided to change strategy. In 2016 one separate account transferred their assets and one separate account completed final liquidation. In 2018 one separate account and two sub-advisory relationships completed final liquidations.

(2) The chart above does not include full or partial redemptions from TA Realty's core open-end fund.

3. **Have there been any new or discontinued products in the past year?**

   One core/core-plus separate account with $300 million in committed capital was launched on 10/31/19.

4. **Are any products capacity constrained?**

   No.

5. **Describe any current or pending regulatory, compliance or litigation issues and the expected business impact.**

   None.

Portfolio Management Team

1. **Have there been any changes in the portfolio management team in the past year?**

   No.

2. **Are there any expected changes to the team in the future (planned additions or departures)?**

   No.

Process

1. **Have there been significant changes in any of the areas below in the past year?**
   - **Identification of investment ideas**
   - **Process for exploring and vetting ideas**
   - **Portfolio trading practices including buy/sell rules**
   - **Approach to portfolio monitoring and risk management**

   No. CPF has maintained a consistent strategy and investment philosophy since its launch on March 27, 2018.

Philosophy

1. **Describe recent changes in investment philosophy, if any.**
   CPF has maintained a consistent strategy and investment philosophy since its launch on March 27, 2018.

   Our strategy has not changed with respect to market or sector allocation. CPF remains focused on its strategy of targeting select markets that we believe have strong fundamental growth drivers. We continue to be extremely focused on managing CPF's liquidity in all facets, including increasing borrowing availability on the line of credit, being extremely selective on future acquisitions (currently no acquisitions in the pipeline), and proactively re-valuating capital spend within the portfolio.

Portfolio

1. **If not included in your meeting presentation, provide portfolio holdings, sector exposure, geographic exposure and common characteristics (yield, duration, market cap, P/E, etc.).**

   Please see presentation.

2. **List strategy AUM, net flows and accounts gained/lost for the past 5 years.**

   TA Realty raised $1.5 billion of seed capital in 2015 and 2016 from two investors to establish a purpose-built portfolio of assets for CPF. TA Realty finished investing this capital in March of 2018 and launched CPF on March 27, 2018 with a $526 million initial close that included 20 investors. All of the assets that were acquired in the seed portfolio were contributed to CPF at the initial close.

As of 6/30/20 CPF has gained 61 accounts. The Fund has not lost any accounts since inception.

Total Gross Assets Under Management	
6/30/2020	3,672,407,497
3/31/2020	3,703,525,071
12/31/2019	3,299,700,906
9/30/2019	3,244,697,556
6/30/2019	3,194,004,153
3/31/2019	3,005,698,070
12/31/2018	2,914,246,124
9/30/2018	2,637,722,004
6/30/2018	2,357,950,474
3/31/2018	2,308,278,773

Flows into Fund ($mm)	Inflows	Outflows	Net Flows
2018	$415.8	-$66.4	$349.4
2019	$451.9	-$110.7	$341.2
YTD 2020	$255.9	-$64.8	$191.1
Total	$1,123.6	-$241.9	$881.7

3. Describe investor concentration for the strategy and note the percent of AUM attributable to the top five investors.

Type	%	# of Investors*
Corporate Pension Plan	3.8%	7
Public Pension Fund	12.7%	19
Endowment	0.7%	2
Foundation	0.6%	3
Taft-Hartley	5.4%	11
Corporate	68.3%	16
Family Office	0.5%	1
Trust	0.1%	1
High-Net-Worth Individual	0.0%	0
Other Institution	7.8%	3
Total	**100.0%**	**63**

*Does not include GP

As of 6/30/20 the top five investors own 68.9% of the Fund.

Performance / Market Outlook

1. **If not included in your meeting presentation, provide trailing returns as of the most recent quarter-end and calendar year returns for the past 10 years, both relative to benchmark.**

   Please see presentation.

2. **Briefly discuss recent performance trends and identify environments in which the strategy is likely to be in or out of favor.**

   We believe CPF is very well capitalized for the new market cycle ahead. CPF has low leverage of 23.6% with no upcoming debt maturities in 2020 and only one $35M loan expiration in August 2021. Reflecting the quality of CPF's assets along with its very proactive debt program, CPF has a very low cost of debt at 2.8% (nearly 70 bps lower than the ODCE overall). The Fund has significant capacity on its revolver to refinance the 2021 maturity if necessary. In addition, CPF has no current pipeline investments, development or heavy value-add assets that will consume capital or be delivered in an uncertain market environment. CPF also does not have exposure to malls, hotels, student housing, or other sectors more immediately impacted by COVID-19. In addition, CPF does not have joint venture relationships where partners may have divergent needs ahead. Lastly, the Fund has durable cash flow with high in-place occupancy at 96% with only 5%of commercial portfolio leases expiring during the remainder of 2020.

3. **Describe your market outlook and how strategy positioning is impacted by your views.**

   Economy

   Second quarter data confirm that the U.S. suffered the single most severe contraction in real gross domestic product ("GDP") since the 1930s. U.S. economic activity came to a near standstill as states imposed lockdowns in March and April to contain the pandemic, triggering a steep drop in output, before beginning to lift restrictions in May and June and allowing growth to resume. Following this sharp decline, economic activity and employment picked up slightly toward the end of the second quarter but remain well below their levels at the beginning of the year. Second quarter GDP was reported at an annualized rate of negative 32.9%, reflecting the deep economic impact of the lockdowns, social distancing and other initiatives aimed at containing the virus.

   The labor market also remains tenuous despite increased activity as states began to reopen in May. Hiring jumped in May and June when employers added 7.5 million jobs to payrolls —the best two-month stretch on record, according to the Labor Department, and the unemployment rate fell to 11%. Still, job gains are well short of replacing the 21 million jobs lost in March and April when the pandemic first hit. In contrast, filings for weekly unemployment benefits are trending higher, a sign the jobs recovery could be faltering. Initial unemployment claims rose by a seasonally adjusted 12,000 to 1.43 million for the week ended July 23 – the second weekly increase in a row after what had been a steady descent from a peak of 6.9 million in late March.

   In response to the COVID-19 pandemic-induced economic slowdown, the U.S. federal government and central bank moved at a rapid pace throughout March and April, and passed three relief packages and a supplement, totaling nearly $2.8 trillion. These programs include one-time economic stimulus payments ($1,200 per adult/$500 per child) and expanded federal and state unemployment benefits. These benefits lifted personal incomes, increased saving rates and have boosted household income, with payouts totaling $1.4 trillion in June, up from pre-pandemic levels of around $28 billion, according the U.S. Department of Commerce Department. The Bureau of Economic Analysis reported that the saving rate of US households rose from about 8% in pre-pandemic February to 13% in March to 33% in April. The U.S. Congress will debate proposals to continue these benefits as they are set to expire at the end of July.

The Federal Reserve (the "Fed"), also mounted an unprecedented push to limit the economic harm of the virus and stabilize financial markets. The Fed has taken several actions to provide support, including cutting its benchmark interest rate to near zero and engaging in large-scale asset purchases of Treasuries and mortgage-backed securities that totaled $2.3 trillion. Those actions, combined with the $500 billion municipal credit facility, expanded the Fed's balance holdings which are now equal to 34% of U.S. GDP and may reach 48% by year-end, according to Bank of America. The Fed has further pledged to use a full range of tools to support the U.S. economy in this challenging time.

The U.S. economy is on the path to recovery, but early signs look uneven. The number of coronavirus cases continues to rise in the U.S. with more than 3.0 million Americas infected, representing 25% of total cases worldwide. While another shutdown of the U.S. economy is unlikely, the continued rise of cases has caused California, Florida and Texas to halt or reverse re-opening plans.

The economy is expected to grow in the third quarter—possibly at a record pace—and a rebound in growth should continue through 2021. However, the trajectory of the virus will determine the trajectory of the U.S. economic recovery – both remain highly uncertain as of the end of the second quarter of 2020. The potential for continued growth in COVID-19 infections remains a significant downside risk to the economy, and the V- shaped recovery that many had hoped for seems increasingly unlikely.

Real Estate Fundamentals

U.S. real estate markets weakened in the second quarter as the COVID-19 pandemic, social distancing, and temporary closures impacted all major property sectors.

Despite the economic downturn, the industrial market is on solid ground with low vacancy rates, record-high asking rents and positive net absorption. The pandemic increased e-commerce's share of total retail sales, thereby increasing the demand for warehouse and distribution space. Overall industrial net absorption of 19.2 million square feet in the second quarter pushed the year-to-date total to 54.2 million square feet. Super-regional and regional distribution hubs, including the Inland Empire, Phoenix, Dallas-Fort Worth, and Indianapolis, exhibited the strongest net absorption rates as a share of inventory throughout the quarter. Rent growth moderated but continued to rise on a quarterly basis and rents were 4.0% higher than a year earlier. Amazon remained the most active lessee for the second quarter, having signed 38 new leases spanning over 16.8 million square feet. Long-term, e-commerce will remain the major driver for industrial real estate, but demand will also be propelled for the foreseeable future by reshoring of supply chains and companies adding redundancy in inventory to guard against disruptions.

Apartment property fundamentals were remarkably stable over the course of the second quarter, with national vacancies remaining relatively tight near 6.9%. Demand continued to grow, but at a slower pace than in recent quarters. Net absorption in apartment markets was 46,485 units, a modest slowing from 54,982 units in the first quarter according to CoStar. Asking rents were unchanged in apartment markets overall. However, as landlords offered greater rent concessions on new lease signings, effective

rents at the national level declined by 0.4% - the first such decline on record since the sector began its recovery arc after the ’08-’09 recession. For some markets, the magnitude of distress is much more acute. The outperformance in suburban residential operating fundamentals, which became apparent in April and May with cities shutting down, continued through the quarter.
The full onset of the pandemic caused widespread disruption to the U.S. office market in the second quarter. With much of the country moving from the workplace to the home office due to widespread shelter-in-place mandates, office leasing volume dropped nearly 50%. This decline combined with absorption turning negative for the first time in a decade, pushed the national vacancy rate past 10%. This threshold was last breached at the end of 2017 but is still below the historical average of about 11%, and well below the 13%- plus rates following the Great Recession. As occupiers take a wait-and-see approach to the long-term impact of COVID-19 on office usage, the potential for a substantial increase in sublease space is a significant concern. However, additions of sublease space have been uneven across markets. While leasing activity is expected to pick up in the second half of 2020, overall demand will depend on tenants’ response to office re-entry and the ability of states to withstand and contain a potential second wave of the coronavirus.

The retail sector was among the sectors most impacted in the second quarter. Leasing activity was just half of pre-pandemic trends, although activity has improved since hitting a trough in mid-April. Discount retailers were among the most active lessees throughout the second quarter, emphasizing the ongoing bifurcation throughout the retail sector as apparel, department stores, and restaurants struggle. Necessity-based retailers, such as grocers, continue to exhibit the most resilience. Negative net absorption continues to mount, as retailers and restaurants shudder their doors amid unprecedented financial stress. The total decline in leased space in the first half of this year is already greater than occurred during the 2008-2009 recession.

Real Estate Capital Markets

U.S. commercial real estate transaction activity plunged in the second quarter as the Covid-19 crisis hindered deal-making and cast a shadow on future demand for some property types. Transaction volume dropped 68% to the lowest level for a second quarter since the Global Financial Crisis, according to Real Capital Analytics. Activity across all major property types tumbled. Industrial sector sales volume was half that of a year earlier, with the other key sectors faring worse. This abrupt slowdown of transactions further limited visibility into price discovery and the potential impact on property valuations.

For returns, core real estate returns decreased in Q2. The total return for the NFI ODCE (gross) decreased by 254 basis points to -1.56% from 0.98% in the prior quarter. The income return decreased by 11 basis points to 0.91% from 1.02% in the prior quarter. Appreciation decreased by 242 basis points to -2.46% from -0.04% in the prior quarter. For trailing twelve months, the total return for the NFI-ODCE (gross) was 2.22%. This is down from the three-year compounded total return for the NFI-ODCE (gross) of 5.66%.

4. **Could you please include a slide in your presentation that shows the MWRA’s account history, initial contribution, cumulative subsequent contributions, cumulative subsequent distributions, gain/loss and current value.**

   Please see presentation.

NOTES

The information contained in these materials is confidential information regarding TA Realty and the TA Realty Core Property Fund ("CPF", "Core Property Fund", or the "Fund"). These materials have been prepared solely for informational purposes. The investment vehicles and securities described herein have not been approved by any securities regulatory authority of any state or by the U.S. Securities and Exchange Commission, nor has any such authority or commission passed on the accuracy or adequacy of this document. Any representation to the contrary is unlawful. These materials do not constitute an offer or the solicitation of an offer to invest nor do they constitute an offer to sell securities or the solicitation of an offer to purchase securities. Any offer to invest and all offers and sales of interests in the Fund in the U.S. will be made exclusively by means of a confidential private placement memorandum ("PPM") and shall be conducted through TA Realty LLC's affiliate, MEC Global Partners LLC, 28 State Street, 10th Floor, Boston, MA 02109; member FINRA/SIPC. The information contained herein is qualified in its entirety by reference to the PPM. These materials are confidential and may not be reproduced or distributed by the recipient. An investment in the Fund involves significant risks. Please see the PPM for a full discussion of risks.

TA Realty's past performance does not necessarily indicate how CPF or investments managed by TA Realty will perform in the future. Investing in real estate involves various risks and the performance of the Fund can be adversely affected by a variety of factors that are outside the control of TA Realty.

The enclosed and other information that we may have provided to you contains forward-looking statements within the meaning of the federal securities laws. Forward-looking statements are those that predict or describe future events or trends and do not relate solely to historical matters. For example, forward-looking statements may predict future economic performance, describe plans and objectives of management for future operations and/or make projections of cash flows, investment returns or other financial items.

Forward-looking statements are inherently uncertain, because the matters they describe are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond our control. No representations or warranties are made as to the accuracy of any forward-looking statements.

The real estate markets are cyclical in nature. Property values are affected by, among other things, the availability of capital, occupancy rates, rental rates and interest and inflation rates. As a result, determining real estate values involves many assumptions. Amounts ultimately realized from each property may vary significantly from the fair value presented and the difference could be material.

Assets are valued quarterly using a third-party independent appraisal management firm. Additional information, including the Fund's valuation policy, capitalization policy regarding capital expenditures, tenant improvements, leasing commissions and information relating to investment management fees is available upon request. The types of investment fees charged by TA Realty are disclosed in Part 2A of the Form ADV for TA Realty LLC, a copy of which is also available upon request.

Performance results are calculated on an asset-weighted average basis using beginning of period values, adjusted for time-weighted external cash flows. Gross returns reflect transactions costs in connection with making and disposing of investments and other fund-level expenses, but they do not reflect management fees, which will reduce returns.

As of the date of these materials, there is an outbreak of a highly contagious form of coronavirus ("COVID-19"), which the World Health Organization has declared constitutes a "Public Health Emergency of International Concern." The effects of such public health emergency may materially and adversely impact the value and performance of the Fund's investments as well as the ability of the Fund to source, manage and divest investments and achieve its investment objectives, which could result in significant losses to the Fund.

MWRA Employees' Retirement System

Date	07/24/19	08/28/19	09/12/19	11/20/19	01/30/20	03/23/20	08/26/20
Distribution[1]	$356,495	$59,381	$747,601	$35,909	$161,321	$21,510	$8,372
Total[2]	$4,186,764	$4,246,145	$4,993,746	$5,029,655	$5,190,976	$5,212,486	$5,220,858

Date	06/30/19	09/30/19	12/31/19	03/31/20	06/30/20
Quarter End NAV[3]	$1,787,706	$629,186	$604,920	$396,143	$393,431

Contribution and Return Summary	
Total Contributions	$3,500,000
Total Distributions[2]	$5,220,858
Most Recent NAV	$393,431
Since Inception IRR (Net)	12.78%
TVPI Multiple (Net)	1.61x

[1]Represents distributions from Q3-2019 – present
[2]Represents total distributions over the life of the Fund
[3]NAV decrease due to Fund X moving into liquidation

TA REALTY

The Realty Associates Fund X Update

MWRA Employees' Retirement System

September 24th, 2020

Agenda

I. Organization Overview

II. Investment Strategy and Portfolio Performance

III. Fund X Portfolio Update

IV. U.S. Real Estate Economic and Market Overview

I. *Organization Overview*

Private Real Estate Investing Since 1982

- Over **$32 billion** in since inception gross AUM[1]
- One of the largest buyers and sellers of **industrial** real estate in the U.S.
- Over **1,000** commercial and multifamily properties acquired over 35+ years
- Seasoned Partners averaging **27 years** of industry experience
- Served as a fiduciary to over **450** domestic and international investors
- 70% owned by Mitsubishi Estate Corporation; 30% owned by TA Realty founder and partners

[1]As of June 30, 2020, includes uncalled capital.

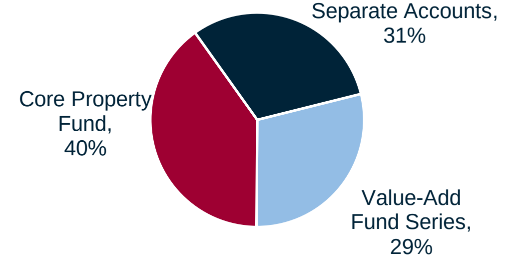
Dedicated Strategies & Proven Track Record

Our Strategies

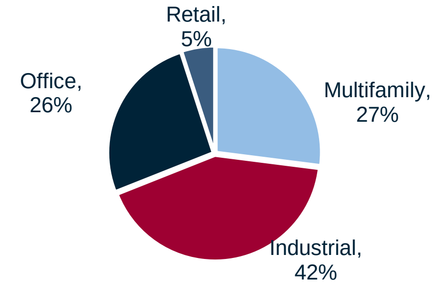
- **Value-Add Fund Series (Closed-End)**
  - $3.6 billion in current gross AUM
  - 12 funds successfully raised
  - All completed funds liquidated on time
- **Core Property Fund (Open-End)**
  - $3.7 billion in current gross AUM
  - Joined the NCREIF–ODCE index in 2Q20
- **Separate Accounts**
  - $3.3 billion in current gross AUM
  - Customized strategies across risk return spectrum
  - Co-investment and club opportunities

$10.6 Billion Current Gross AUM[1]

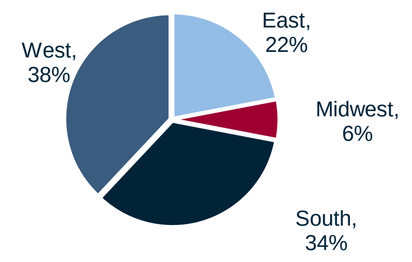
- **Strategy**



- **Property Type[2]**



- **Geography[2]**



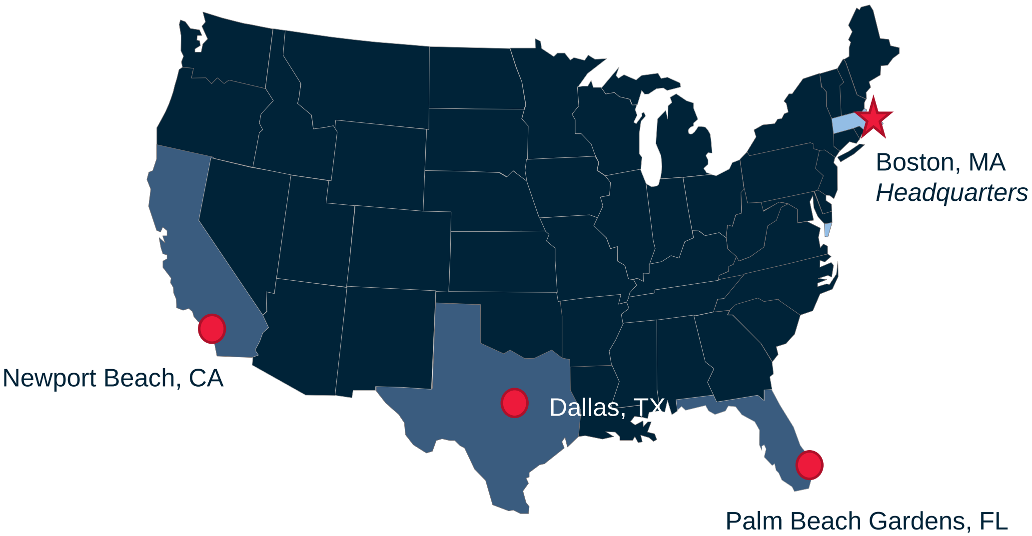
[1]As of June 30, 2020, includes uncalled capital.
[2]Based on property gross asset values as of June 30th, 2020

Established, Experienced and Stable Team

Our People

- Over 80 professionals across real estate disciplines and geographical regions
- 24 partners with average 27 years of real estate experience and 17 years of tenure at TA
- Alignment with investors through significant co-invest and broad sharing of carried interest within the Firm for certain funds
- Successful management through market and economic cycles

Our Locations



Partner-Level Leadership Across Disciplines

Portfolio Management

14 Total Team Members

Jim Raisides (24/28)*
Managing Partner

Alan Brand (19/36)
Partner

Nicole Dutra Grinnell (18/24)
Partner

Randy Harwood (6/37)
Partner, Head of Valuations

Jake Maliel (6/12)
Partner

Nhat Nguyen (13/13)
Partner

Sean Ruhmann (3/15)*
Partner

Acquisitions

16 Total Team Members

Jim Buckingham (23/38)*
Managing Partner

Doug Engelman (16/32)
Partner

Blair Lyne (18/36)*
Partner

Greg Waxman (15/17)
Partner

Jim Whalen (28/35)*
Partner

Asset Management

14 Total Team Members

Scott Amling (19/30)
Partner

Chris Good (19/32)
Partner

Heather Hohenthal (20/30)
Partner

Jim Knowles (21/34)
Partner

Kendrick Leckband (12/18)
Partner

John Powell (17/29)
Partner

Brooks Wales (20/22)
Partner, Head of Asset Management

Firm Operations

8 Total Team Members

Mike Haggerty (22/31)*
Managing Partner

Investor Relations

10 Total Team Members

Marcus Berry (8/16)
Partner, Head of Investor Relations

Tom Landry (13/22)
Partner

Financial Operations

21 Total Team Members

Scott Dalrymple (16/26)
Partner, CFO & CCO

Nate Foss (10/34)
Partner, Head of Investor Accounting

* Indicates Investment Committee Member

As of July 1, 2020. Numbers in parentheses represent tenure with the firm/years in the industry. Total Team Members include administrative personnel assigned to each functional group.

II. *Investment Strategy and Portfolio Performance*

Consistent Investment Strategy

TA Realty has an established track record of creating diversified, value-added real estate funds delivering attractive risk-adjusted returns

- U.S. based, focused on primary markets with emphasis on coasts
- Property diversification: Industrial, Office, Multifamily, Grocery-anchored Retail
- Focus on Industrial: 45% allocation target
- Average deal size of approximately $25 MM: allows for better yield from inefficient market
- Over 35 year history of relationships enables access to off market deals

- Hands-on asset management: deep property level operating expertise through multiple cycles
- Proactive management of tenant and industry exposure: minimizes industry or tenant concentration
- Prudent use of debt: capped at 50% LTV with low to mid-40% target
- No joint ventures: no extra fees and avoids potential misalignment

Overview of Funds

As of June 30, 2020

	Liquidated Funds									Active Funds		
	Fund I	Fund II	Fund III	Fund IV	Fund V	Fund VI	Fund VII	Fund VIII	Fund IX	Fund X	Fund XI	Fund XII
Year of Inception	1987	1990	1994	1996	1999	2002	2004	2006	2008	2012	2015	2018
Year Investment Period Ended	1989	1993	1996	1998	2002	2004	2006	2008	2011	2015	2018	
Year of Full Liquidation	2001	2003	2006	2007	2011	2013	2016	2018	2018	-	-	-
Committed Capital (MM)	$ 163.5	$ 332.5	$ 487.5	$ 450.0	$ 562.6	$ 738.5	$ 917.0	$ 1,742.0	$ 1,492.6	$ 1,562.1	$ 879.2	$ 1,178.1
Distributions Since Inception (MM)[1]	$ 196.5	$ 762.7	$ 1,087.6	$ 1,049.6	$ 1,062.2	$ 1,151.4	$ 938.8	$ 1,730.9	$ 2,502.6	$ 2,450.0	$ 206.8	$ -
MWRA Commitments (MM)										$ 3.5		
MWRA Distributions (MM)[1,2]										$ 5.2		
Average LTV Since Substantially Invested	0%	16%	29%	37%	42%	43%	46%	45%	36%	42%	35%	Target: 45%
Total Number of Investments Since Inception	12	41	66	52	55	65	75	127	96	108	53	19
	IRR									IRR[3]		
Gross Return	3.23%	14.20%	13.43%	15.75%	12.36%	10.92%	2.09%	1.49%	13.24%	16.29%	10.67%	-
Net Return	2.34%	12.04%	11.38%	13.42%	10.34%	8.55%	0.33%	-0.08%	10.43%	12.78%	7.77%	-
Gross Multiple	1.27	2.39	2.34	2.43	2.00	1.67	1.15	1.13	1.77	1.80	1.31	-
Net Multiple	1.20	2.14	2.09	2.15	1.80	1.52	1.02	0.99	1.60	1.61	1.23	-

[1]Declared distributions through August 2020.
[2]Distributions may include required tax withholdings.
[3]At this stage of Fund XII's life cycle, IRR is not representative of the Fund's performance to date, see page 19 for TWR

III. *Fund X Portfolio Update*

Fund X Market Position

Fund X is in final liquidation with the majority of its value and return realized; 157% of capital commitments have been returned to investors through distributions

- 12 Investments as of June 30, 2020, approximately $324.7 MM in GAV
- Term of Fund through October 2021 (3 extensions available); target full liquidation Q2 2021

- During the quarter, the Fund sold one investment for $35.9 MM, realizing a loss of $9.5 MM
- Six assets currently in disposition process

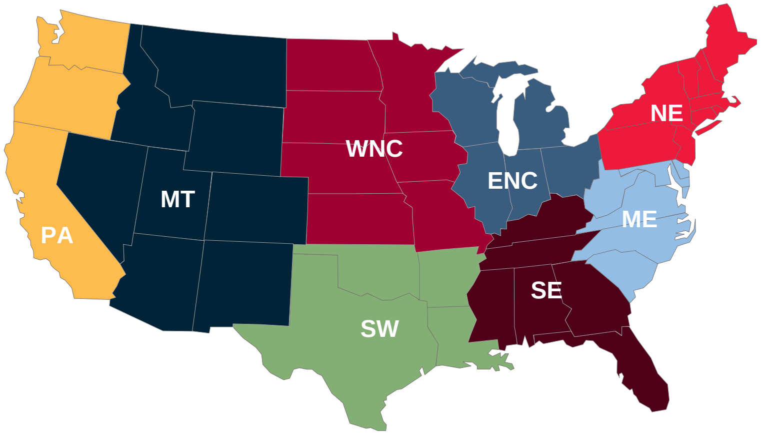
- $200 MM Revolving Credit Facility through Dec 2022 (with extensions)
- Sold $3,414.4 MM in assets since inception, realizing 12.1% gross unleveraged IRR and 1.54x multiple

Fund X Diversification

Total Investments / Avg. Investment Size	12 / $27 MM
Total SF / Units	1.6 MM / 161
Fair Value	$324.7 MM

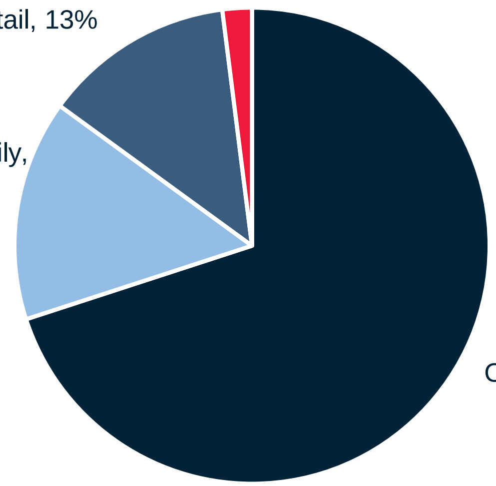
Average Tenant Size	6,150
Number of Markets	9
Portfolio Occupancy	73%

By Geographic Location[1]



Pacific	**8%**	Mideast	**25%**
Southwest	**11%**	Mountain	**20%**
Northeast	**25%**	East North Central	**0%**
Southeast	**0%**	West North Central	**11%**

By Property Type[1]

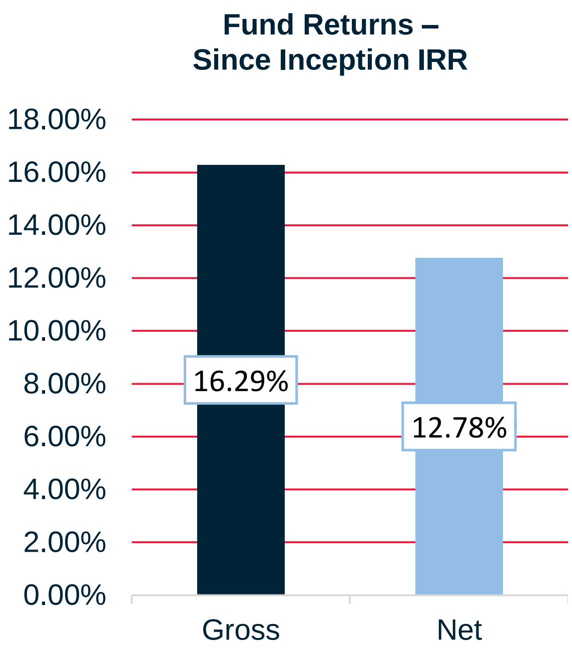


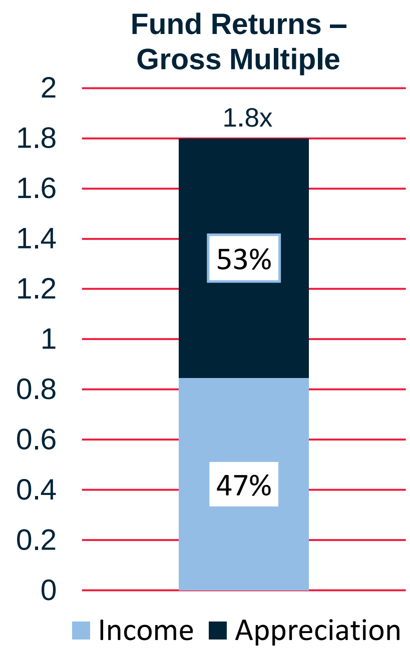
[1]Based on 6/30/20 Fair Values

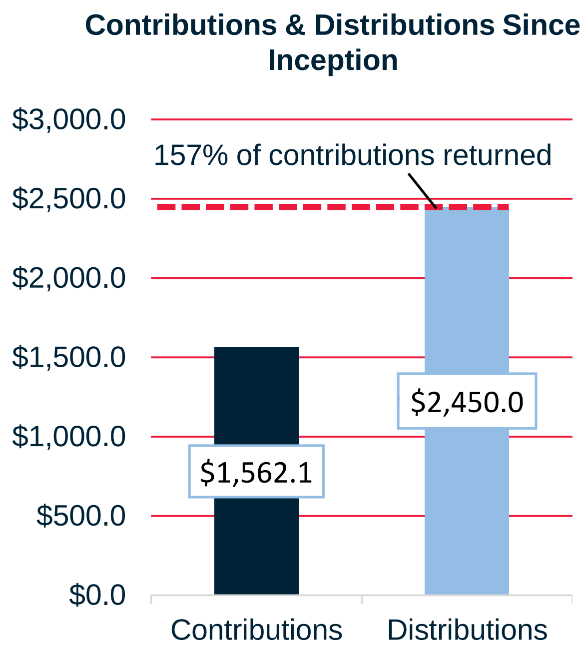
Fund X Highlights

Fair Value	$324.7 MM
Investments at Cost	$414.0 MM
Q2 2020 Net Unrealized Loss	$3.0 MM

Portfolio Occupancy	73%
Q2 2020 Distributions	$5.0 MM
Since Inception Distributions	$2,450.0 MM



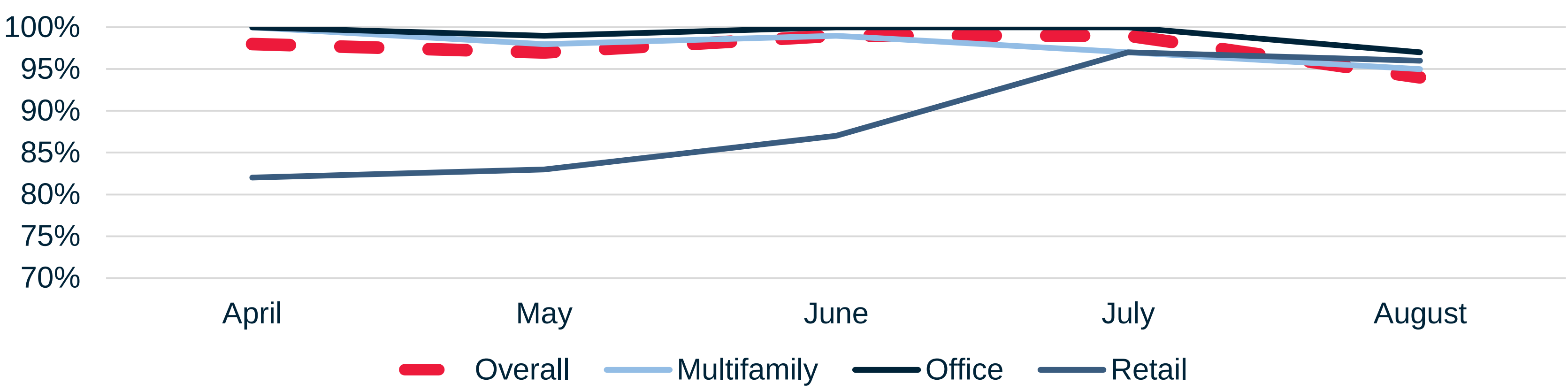




Fund X Portfolio Collections

TA Realty's Portfolios have a high average collection rate across all parts of the cycle and monthly collections have remained strong during the Covid-19 crisis:

(as of 8/21)	April	May	June	July	August
Overall	98%	97%	99%	99%	94%
Industrial	n/a	n/a	n/a	n/a	n/a
Multifamily	100%	98%	99%	97%	95%
Office	100%	99%	100%	100%	97%
Retail	82%	83%	87%	97%	96%



Note: Rents continue to be paid after month end, improving collections over time

Fund X 2020 Disposition Program

Asset	Product Type	Cost (MM)	Net Price/Fair Value[1] (MM)	Status
Promenade at Carillon	Multifamily	$ 59.1	$ 63.5	Closed January 2020
Virginia Highlands	Multifamily	44.7	59.7	Closed January 2020
Atrium at Lakeside	Office	39.6	47.7	Closed February 2020
Commerce Executive Park VI	Office	42.1	35.5	Closed March 2020
Park Del Amo	Office	45.0	39.0	Closed May 2020
Mason Creek III	Land	5.1	2.0	Closed August 2020
Southport	Land	5.1	5.9	Under Agreement
Mason Creek II	Office	12.4	9.0	Marketing
Barton Creek Plaza I	Office	19.2	24.3	Marketing
The Park at San Tan	Office	74.0	65.2	Marketing
Freeway Corporate Park	Office	25.4	21.2	Marketing
The Shoppes at Cross Keys	Office	55.2	35.3	Pre-Marketing
Petworth at Park Place	Multifamily	65.8	56.1	Pre-Marketing
Total 2020 Closed and Under Agreement		**$ 492.7**	**$ 464.4**	

[1]For closed assets, the fair value represents the net sales proceeds to the fund from disposition. For unrealized assets, the fair value represents the value of the assets as of 6/30/20

Fund X Industrial Portfolio Sale

National: AZ, CA, CO, FL, GA, IL, MA, NJ, NY, TX, WA

DATE SOLD:
July/August 2019

PROPERTY TYPE:
Industrial

NET SALES PROCEEDS:
$1,024.5 MM

OCCUPANCY (AT SALE):
93%

GROSS UNLEVERAGED IRR:
13.7%

Highlights

- Diversified portfolio of 96 buildings located in premier distribution markets across the U.S.
- TA Realty acquired assets in 30 separate transactions over a three-year period from May 2012 into July 2015
- Executed 8.9 MM SF of leases over investment period, increasing NOI from $31.6 MM at acquisition to $43.6 MM at year-end 2018 (38% increase)
- Assets offered for sale in April 2019. Presented as opportunity to execute as national portfolio or regional portfolios - providing optionality to bidders and ability for TA Realty to achieve maximum pricing
- The Portfolio sold in two transactions in July and August 2019 for a total contract price of $1,042.4 MM

Fund X Industrial Portfolio Sale

National: AZ, CA, CO, FL, GA, IL, MA, NJ, NY, TX, WA

Portfolio	Locations	Total # of Assets	Total SF (MM)	6/30/19 Cost Basis (MM)	6/30/19 Fair Value (MM)
Texas	Dallas, Austin, Houston, San Antonio	9	2.9	$168.0	$246.1
Northeast	NY, NJ, Boston	5	1.4	$151.7	$266.4
Southeast	Atlanta, Miami	3	1.1	$74.1	$91.8
Los Angeles	LA, Inland Empire	6	1.1	$137.5	$233.4
West Coast	Denver, Phoenix, Seattle	5	0.9	$90.9	$127.8
Midwest	Chicago	3	0.8	$54.0	$64.8
		31	8.2	$676.2	$1,030.3
				Contract Price	**$1,042.4**

Fund X Summary and Strategic Plan

- Portfolio is in final stages of realizing investments
- Bulk of portfolio has been realized through sale. Sold 96 investments for net sales proceeds of $3,414.4 MM, resulting in $750.1 MM of net realized gain
- Distributed $2,450.0 MM vs. $1,562.1 MM (157% of initial equity)
- Loan-to-value ratio of 35% and a weighted average cost of debt of 1.6%; all existing debt is fully pre-payable without penalty at any time and extends through December 2022 (with extensions)
- Continue to intensively manage assets
- Anticipate completing liquidation of Fund by Second Quarter 2021

IV. *U.S. Real Estate Economic and Market Overview*

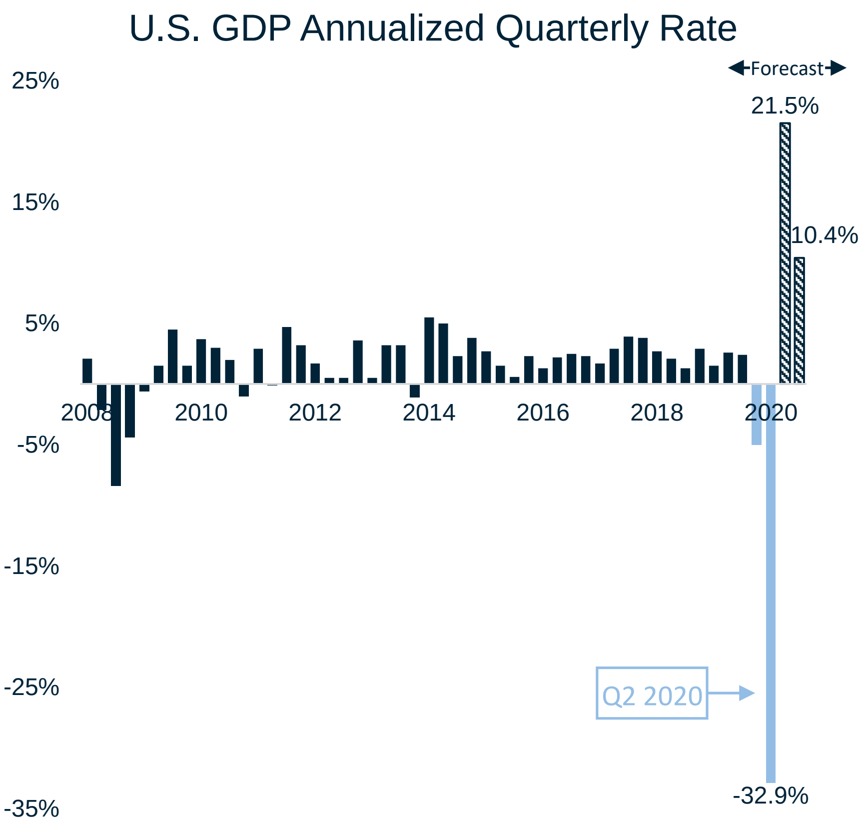
US Real Estate Economic and Market Overview

Key Take-Aways

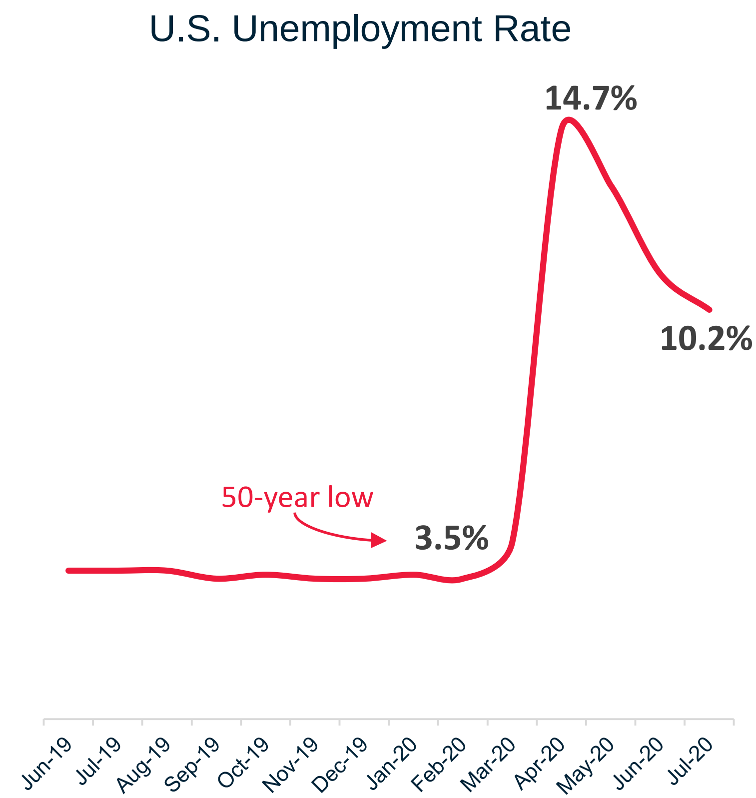
- The second quarter data captured the steep decline in economic activity due the pandemic-induced lockdowns in April-May
- The economy is on a path to recovery, but the pace of the recovery looks like it has slowed since new COVID-19 cases began to spike in June
- Property markets reacted to the uncertainty with a dramatic decline in transactions
- Price discovery remains challenged
- Operating fundamentals show impact and dislocation between sectors

Coronavirus-induced lockdowns stalled U.S. economic activity early in second quarter

GDP contracted at a historic rate[1]



Unemployment rose abruptly[2]

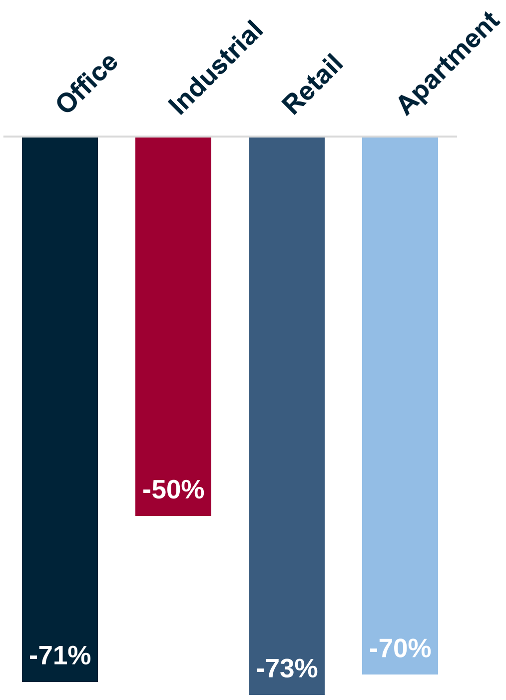


[1]Source: U.S. Bureau of Economic Analysis, Real Gross Domestic Product, Percent Change from Preceding Period, Quarterly, Seasonally Adjusted Annual Rate, Congressional Budget Office Forecast
[2]Source: Bureau of Labor Statistics. Seasonally Adjusted, Federal Reserve, data as of July 25, 2020

Second quarter revealed weakened conditions, but property sector performance varied

Transactions fell 68% overall[1]

Year-over-Year change in volume by sector



NOI impact varied[2]

Annual NOI Growth

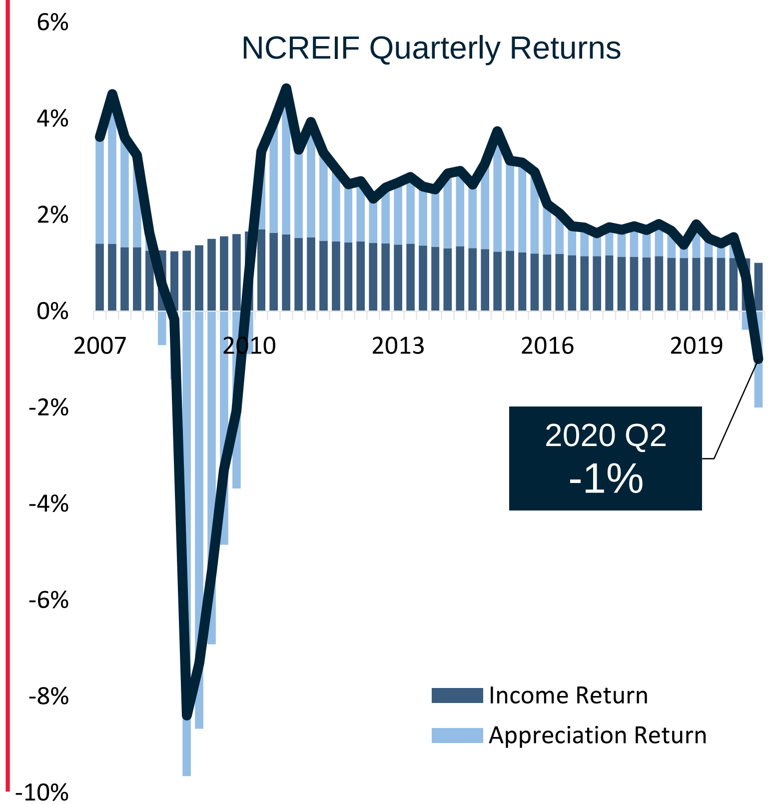
Industrial
+5.62%

Office
+2.25%

Apartment
-1.52%

Retail
-32.73%

Property returns turned negative[3]



[1]Source: Real Capital Analytics, RCA, NCREIF NPI, data as of Q2 2020
[2]Source: NCREIF 4-Qtr Rolling NOI Growth, data as of Q2 2020
[3]Sources: National Council of Real Estate Investment Fiduciaries (NCREIF) NPI Unleveraged returns as of Q2 2020

Important Information

The information contained in these materials is confidential information regarding TA Realty and the closed-end real estate funds (the “Funds”) that it has sponsored. These materials have been prepared solely for informational purposes. The investment vehicles and securities described herein have not been approved by any securities regulatory authority of any state or by the U.S. Securities and Exchange Commission, nor has any such authority or commission passed on the accuracy or adequacy of this document. Any representation to the contrary is unlawful. These materials do not constitute an offer or the solicitation of an offer to invest nor do they constitute an offer to sell securities or the solicitation of an offer to purchase securities. Any offer to invest and all offers and sales of interests in the Funds in the U.S. will be made exclusively by means of a confidential private placement memorandum (“PPM”) and shall be conducted through TA Realty LLC’s affiliate, MEC Global Partners LLC, 28 State Street, 10th Floor, Boston, MA 02109; member FINRA/SIPC. The information contained herein is qualified in its entirety by reference to the PPM. These materials are confidential and may not be reproduced or distributed by the recipient. An investment in the Fund involves significant risks. Please see the PPM for a full discussion of risks.

These presentation materials may contain forward-looking statements within the meaning of the United States federal securities laws. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. For example, forward-looking statements may predict future economic performance, describe plans and objectives of management for future operations and make projections of revenue, investment returns or other financial items. A prospective investor can generally identify forward-looking statements as statements containing the words “will,” “believe,” “expect,” “anticipate,” “intend,” “contemplate,” “estimate,” “project,” “assume” or other similar expressions. Such forward-looking statements are inherently uncertain, because the matters they describe are subject to known (and unknown) risks, uncertainties and other unpredictable factors, many of which are beyond the Fund’s control. No representations or warranties are made as to the accuracy of such forward-looking statements. To ensure compliance with requirements imposed by the US Internal Revenue Service, we inform you that any US federal tax advice contained in this presentation is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding penalties under the US Internal Revenue Code or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein.

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The real estate markets are cyclical in nature. Property values are affected by, among other things, the availability of capital, occupancy rates, rental rates and interest and inflation rates. As a result, determining real estate values involves many assumptions. Amounts ultimately realized from each property may vary significantly from the fair value presented and the difference could be material.

As of the date of this presentation, there is an outbreak of a highly contagious form of coronavirus (“COVID-19”), which the World Health Organization has declared constitutes a “Public Health Emergency of International Concern.” The effects of such public health emergency may materially and adversely impact the value and performance of the Funds' investments as well as the ability of the Funds to source, manage and divest investments and achieve its investment objectives, which could result in significant losses to the Funds.

Important Information

i. Gross IRR" and "Net IRR" reflect an annualized internal rate of return, calculated based on daily cash flows using the XIRR function in Excel. The terminal value for active funds utilized in this calculation is equal to the net asset value as of the report date.

ii. Since Inception and Trailing Twelve Month time-weighted rates of return ("TWR") calculated by linking quarterly returns pursuant to NCREIF performance measurement guidance. Performance results are calculated on an asset-weighted average basis using beginning of period values, adjusted for time-weighted external cash flows.

iii. Gross returns reflect transactions costs in connection with making and disposing of investments and other fund-level expenses, but they do not reflect management fees and carried interest, which will reduce returns and, in the aggregate, are expected to be substantial. Net returns are after all management fees and carried interest, but do not include taxes or withholdings incurred by investors directly.

iv. "Gross Multiple" equals (a) the total distributions plus management fees paid divided by (b) the total equity invested for such fund. "Net Multiple" equals (a) the total distributions divided by (b) the total equity invested for such fund. Gross Multiples reflect transactions costs in connection with making and disposing of investments and other fund-level expenses, but they do not reflect management fees or carried interest, which will reduce returns and, in the aggregate, are expected to be substantial. Net Multiples are after all management fees and carried interest, but do not include taxes or withholdings incurred by investors directly.

v. TA Realty typically utilizes subscription-secured credit facilities during each Prior Fund's subscription and acquisition periods, particularly with its more recent Prior Funds and expects to have such a facility for the Fund. The use of such facilities is expected to be accretive to the Prior Funds' and the Fund's IRRs.

vi. There can be no assurance that the active Prior Funds' unrealized investments will be sold at values that are equal to or greater than the fair values used. Also, no assurance can be given that the differential between gross and net returns for the active Prior Funds mirror the historical averages of such differentials for the liquidated Prior Funds. Actual realized returns for the active Prior Funds will depend on various factors, including future operating results of unrealized investments, market conditions, the timing and manner of investment dispositions, operating expenses, amount and terms of indebtedness and transaction costs.

vii. "Fund I" means Advent Realty L.P. "Fund II" means Advent Realty L.P. II. "Fund III" means Realty Associates Fund III. "Fund IV" means Realty Associates Fund IV. "Fund V" means Realty Associates Fund V. "Fund VI" means Realty Associates Fund VI. "Fund VII" means Realty Associates Fund VII. "Fund VIII" means Realty Associates Fund VIII. "Fund IX" means Realty Associates Fund IX. "Fund X" means Realty Associates Fund X. "Fund XI" means Realty Associates Fund XI. Investors in Funds II through XI could invest in either an operating partnership or through an associated REIT. Investors in Funds X and XI could also invest through a feeder corporation. The returns shown for Funds II through XI reflect the returns to investors in the operating partnerships; investors who invested through the associated REITS or Funds X and XI feeder corporation bore the additional operating expenses of these entities and their subsidiaries.

viii. Gross unleveraged IRR for dispositions is an annualized gross internal rate of return, calculated on the basis of quarterly capital inflows and outflows related to the investment. The gross unleveraged IRR reflects transaction costs in connection with making and disposing of the investment, but it does not reflect the cost of leverage, investment management fees, carried interest, taxes and other fees and expenses borne by or allocable, directly or indirectly, to the respective fund and its investors.

ix. Property level projected stabilized gross unleveraged net operating income ("NOI") yields, if presented, are calculated as annual NOI (in year of stabilization) divided by asset purchase price plus capital expenditures. Property level initial/year 1 NOI yields, if presented, are gross and calculated as year 1 total NOI divided by asset purchase price plus year 1 capital expenditures.

x. The kinds of investment fees charged by TA Realty are disclosed in Part 2A of the Form ADV for TA Realty LLC, a copy of which is available upon request.

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Firm: Kayne Anderson Capital Advisors, L.P.
Strategy/Product: Kayne Anderson Energy Fund VII, L.P.
Client: Massachusetts Water Resources Authority Employees' Retirement System

NEPC Manager Due Diligence Questionnaire - Update

Instructions

In support of our upcoming meeting we ask that you please complete this due diligence questionnaire. Please provide your responses in the form of brief descriptions, lists or tables added directly to this Word document.

Thank you for taking the time to complete this questionnaire. Please note that your response will be part of the NEPC Research Database.

Firm/Organization

1. Have there been any changes in ownership or management in the past year?

   Kayne Anderson Capital Advisors, L.P. is a private independent partnership owned by its management and investment professionals. Ric Kayne remains the controlling owner, however, beginning in 2016 with the hiring of Mike Levitt as Kayne's new CEO, the Firm began a succession plan which gives a majority of the ownership of future share classes to the Executive Committee and current investment and management professionals of Kayne. Prior share classes were majority owned by the founding partners. New equity was issued at year end, and as a result, the ownership has increased from 34 to 51 partners.

2. List firm AUM, net flows and accounts gained/lost for the past 5 years.

Firm	2015	2016	2017	2018	2019	6/30/20 Estimates
AUM ($MM)	$20,233.8	$25,676.6	$26,320.6	$28,275.2	$31,934.3	$29,995.3
# of Clients Gained [1]	20	22	22	16	19	18
Assets ($MM) Gained	$5,694.4	$4,408.0	$5,865.2	$5,979.1	$3,153.2	$4,331.0
# of Clients Lost [1]	-	-	17	13	13	-
Assets ($MM) Lost	$0.0	$0.0	$525.8	$1,265.7	$355.5	$0.0

(1) *Includes Funds and SMAs (combines sleeves of the same fund)*

3. Have there been any new or discontinued products in the past year?

   The Firm is currently marketing the following private equity funds: (1) Kayne Anderson Core Real Estate Fund, an open-end fund focused on investment in stabilized real estate in medical office, senior housing, student housing and self-storage properties; (2) Kayne Anderson Senior Credit Fund IV-B focused on making private, senior secured loans to middle market companies; (3) Kayne CLO Partners Fund II, focused on Kayne-managed CLO equity/warehouse facilities and tradable minority stakes in externally-managed CLO equity and debt; (4) Kayne Anderson Real Estate Partners VI, a private equity fund focused on opportunistic/value-add investments in medical office, senior housing and student housing with a target size of $2.5 billion; (5) Kayne Anderson Real Estate Debt IV, focused on Freddie Mac structured products and direct loan origination with a target fund size of $1.5 billion; (6) Kayne Partners Fund V, focused on

minority/non-control investments in privately held, mission critical enterprise software companies with a target fund size of $500 million; and (7) Kayne Renewable Opportunities Partners, focused on investment in renewable infrastructure including utility-scale solar with a target fund size of $500 million.

4. Are any products capacity constrained?

   No strategy is currently capacity constrained.

5. Describe any current or pending regulatory, compliance or litigation issues and the expected business impact.

   There have been no material legal proceedings against Kayne or its principals that would impact the day-to-day operations of the Firm or its reputational standing. Further, there is no pending litigation against the Firm or its principals relating to investment management activities.

Portfolio Management Team

1. Have there been any changes in the portfolio management team in the past year?

   Chuck Yates, Co-Managing Partner of the Kayne Energy Funds, is no longer with the firm.

2. Are there any expected changes to the team in the future (planned additions or departures)?

   No planned changes for the portfolio management team at this time.

Process

1. Have there been significant changes in any of the areas below in the past year?

   - Identification of investment ideas

     KAEF has added the expertise of key members of the KPEIF investment team (through the integration of the KAEF and KPEIF teams) to provide an additional layer of scrutiny of investment ideas and decisions.

   - Process for exploring and vetting ideas

     N/A (see above).

   - Portfolio trading practices including buy/sell rules

     N/A (see above).

   - Approach to portfolio monitoring and risk management

     N/A (see above).

Philosophy

1. Describe recent changes in investment philosophy, if any.

   In tandem with the leadership changes earlier this year, we conducted a detailed portfolio wide review that risk rated future development opportunities of each underlying portfolio company. The outcome of this analysis was reflected in our

June 30, 2020 valuations as well as the projections shared at our September 2020 Partners' Meeting.

This bottom up analysis gives us greater confidence in our ability to underwrite future investments that yield strong go-forward equity returns under high conviction assumptions. These adjustments were made to reflect factors that have severely impacted the upstream energy industry and KAEF performance, including well spacing and parent-child interference challenges. While our base case outlook now reflects fewer future locations (due to more conservative spacing assumptions), we have high conviction in our ability to convert modeled locations into cash flow and generate attractive cash on cash returns going forward (and to ultimately monetize these assets at a premium). This process is further supported by several strategic initiatives – most notably our Mid-Con and Kraken consolidations – that we expect to enhance the value of the portfolio.

Portfolio

1. If not included in your meeting presentation, provide portfolio holdings, sector exposure, geographic exposure and common characteristics (yield, duration, market cap, P/E, etc.).

   Please see presentation. In terms of concentrations for remaining oil and gas investments in KAEF VII, 42% of 6/30 unrealized value is concentrated in the Mid-Con region (Casillas, Native, Beacon and Triumph), 36% is concentrated in the Williston Basin (Kraken II), 19% is concentrated in the Permian Basin (Riverbend II, Alamo III and SHEP II) and the remaining 3% is concentrated in the Northwest Shelf (Monadnock), Powder River Basin (Balidor) and minerals (Haymaker II).

2. List strategy AUM, net flows and accounts gained/lost for the past 5 years.

EF7	2016	2017	2018	2019	6/30/20 Estimates
AUM ($MM)	$2,414.60	$2,577.10	$2,439.60	$1,783.30	$763.70
Accounts @ Year End	522	525	522	524	524
# of Clients Gained	314	1	5	8	4
Assets ($MM) Gained	$1,317.00	-	-	-	-
Assets ($MM) Lost[1]	-	-	-	-	-

(1) *Not applicable as the strategy is a closed-end fund*

3. Describe investor concentration for the strategy and note the percent of AUM attributable to the top five investors.

Top 5 Investors	AUM	%
1	$53,860,151	7.05%
2	$38,384,451	5.03%
3	$38,374,000	5.02%
4	$27,754,814	3.63%
5	$27,681,657	3.62%
Total AUM	**$763,700,814**	

Performance / Market Outlook

1. If not included in your meeting presentation, provide trailing returns as of the most recent quarter-end and calendar year returns for the past 10 years, both relative to benchmark.

Date [1]	Net IRR [2]
6/30/2020	-27.19%
12/31/2019	2.53%
12/31/2018	21.59%
12/31/2017	40.74%
12/31/2016	65.51%
12/31/2015	NM

(1) *Note the net returns represent the time period from inception through the dates indicated above*
(2) *Note the net IRR above was computed based on the due dates of the capital contributions, date of capital distributions, and the partners' capital at the end of year, net of unrealized carried interest reallocation*

Given the limited amount of time since the closing of certain Funds' investments, return calculations may be presented as "NM", or not meaningful.

2. Briefly discuss recent performance trends and identify environments in which the strategy is likely to be in or out of favor.

Chronic upstream energy underperformance (oil and gas has been the worst performing sector in the S&P 500 over the past 10 years) has led to a dramatic withdrawal of investor capital from the space. Additionally, the industry is currently in a state of significant distress given low commodity prices, excessive leverage and limited access to capital. Further compounding these challenges for KAEF, the M&A market for assets with significant undeveloped inventory remains depressed.

As a growth focused private equity fund, the collapse in oil prices (due to challenging supply demand dynamics) and these difficult market conditions has undoubtedly created issues for KAEF, which is reflected in our current (6/30/20) fund valuations.

The path towards improving KAEF VII's return through the creation of incremental equity value will require an improvement in both market conditions and disciplined investment decisions on our part. Ultimately, we believe KAEF VII has the potential for significant value increases (particularly in a market recovery scenario), albeit the bar for deploying new capital will be significantly higher.

3. Describe your market outlook and how strategy positioning is impacted by your views.

The distressed industry backdrop is expected to create many attractive investment opportunities and ultimately be bullish for commodity prices.

The bar for future capital investments is extremely high. We are focusing our efforts on optimizing the biggest drivers of future value for KAEF and targeting attractive opportunities with our best management teams. We are also working on

several strategic initiatives – most notably our Mid-Con and Kraken consolidations – that we expect to enhance the value of the portfolio.

4. Could you please include a slide in your presentation that shows the MWRA's account history, initial contribution, cumulative subsequent contributions, cumulative subsequent distributions, gain/loss and current value.

   Please see presentation.

Kayne Anderson

Capital Advisors, L.P.

KAYNE ANDERSON ENERGY FUNDS

NEPC Discussion | September 2020

www.kaynecapital.com

Confidential

Investment Detail and Net IRR – As of June 30, 2020

Initial Investment	12/01/2015
Total Funds Committed	$5,000,000
Unfunded Commitment	$622,838
Contributions Since Inception	$5,081,735
Withdrawals Since Inception	($1,974,106)
Net Gain/Loss Since Inception	($1,880,146)
Capital Balance as of June 30, 2020	**$1,227,483**
Net IRR	-26.1%
Net ROI	0.63x

As of June 30, 2020.
Investment start date represents the first effective cash flow date used in the calculation of the IRR.
The above Contributions and Withdrawals/Distributions represent capital wired between Kayne Anderson and Partner's external account. Excludes transfers to/from Kayne entities, which are included in the Internal Transfers columns.
For Commitment Funds, the above Contributions and Withdrawals/Distributions include deemed transactions, when applicable.

Unfunded Commitment represents the total amount of capital that the fund may still call from your account. This amount generally may be called only during the Commitment Period or to fund investment commitments made but not funded during the Commitment Period, and expenses, including fees, whenever incurred. Prior distributions from the fund may be included in this amount if the distributed proceeds are recallable under the fund's limited partnership agreement. Please refer to the fund documents for further information regarding the Unfunded Commitment.

KAEF Investment Team

KAEF Leadership

Mike Heinz*
Managing Partner

Mark Teshoian*
Managing Partner

Ryan Sauer*
Managing Director

KAEF Portfolio Management

Patrick Lissonnet
Managing Director

Nick Christ
Senior Vice President

Jack Foster
Senior Vice President

Tadd Hatcher
Senior Vice President

Bryan Collins
Vice President

Jose Linardi
Associate

Cole Medrano
Associate

Kyle Murphy
Associate

Andy Griffin
Engineering Analyst

Elizabeth Hall
Engineering Analyst

Kevin Brophy
General Counsel

Brad Witmer
CAO

KACALP Leadership

Ric Kayne
Founder & Co-Chairman

Mike Levitt
Chief Executive Officer

Paul Blank*
Chief Operating Officer

Bob Sinnott*
Co-Chairman

Jarvis Hollingsworth
General Counsel

Terry Quinn
Vice Chairman

Kevin McCarthy*
Vice Chairman

Danny Weingeist*
Managing Partner

*** KAEF Investment Committee Member**

Kayne Anderson

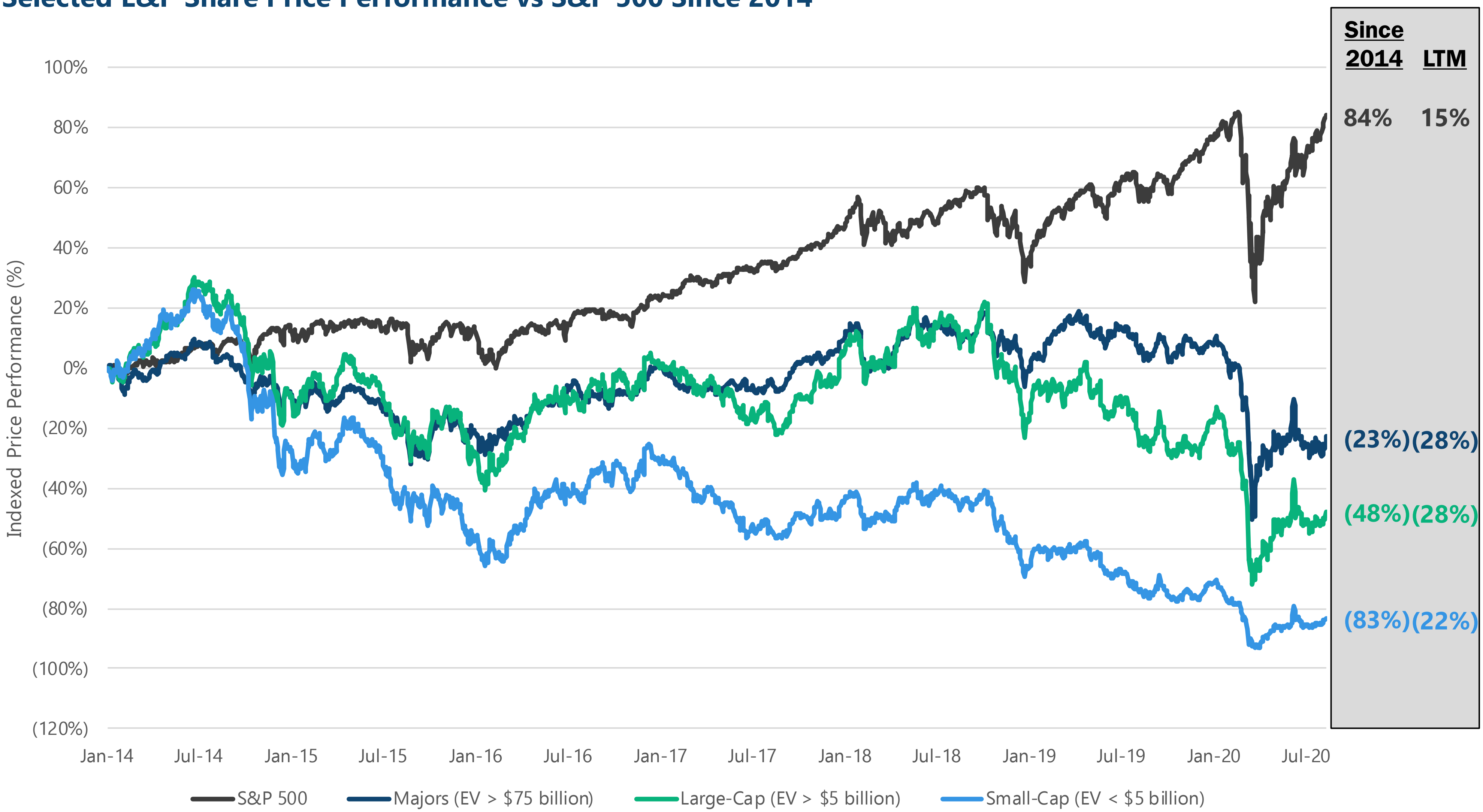
Capital Advisors, L.P.

Energy Market Update

E&Ps Have Dramatically Underperformed the Broader Market…

Kayne Anderson
Capital Advisors, L.P.

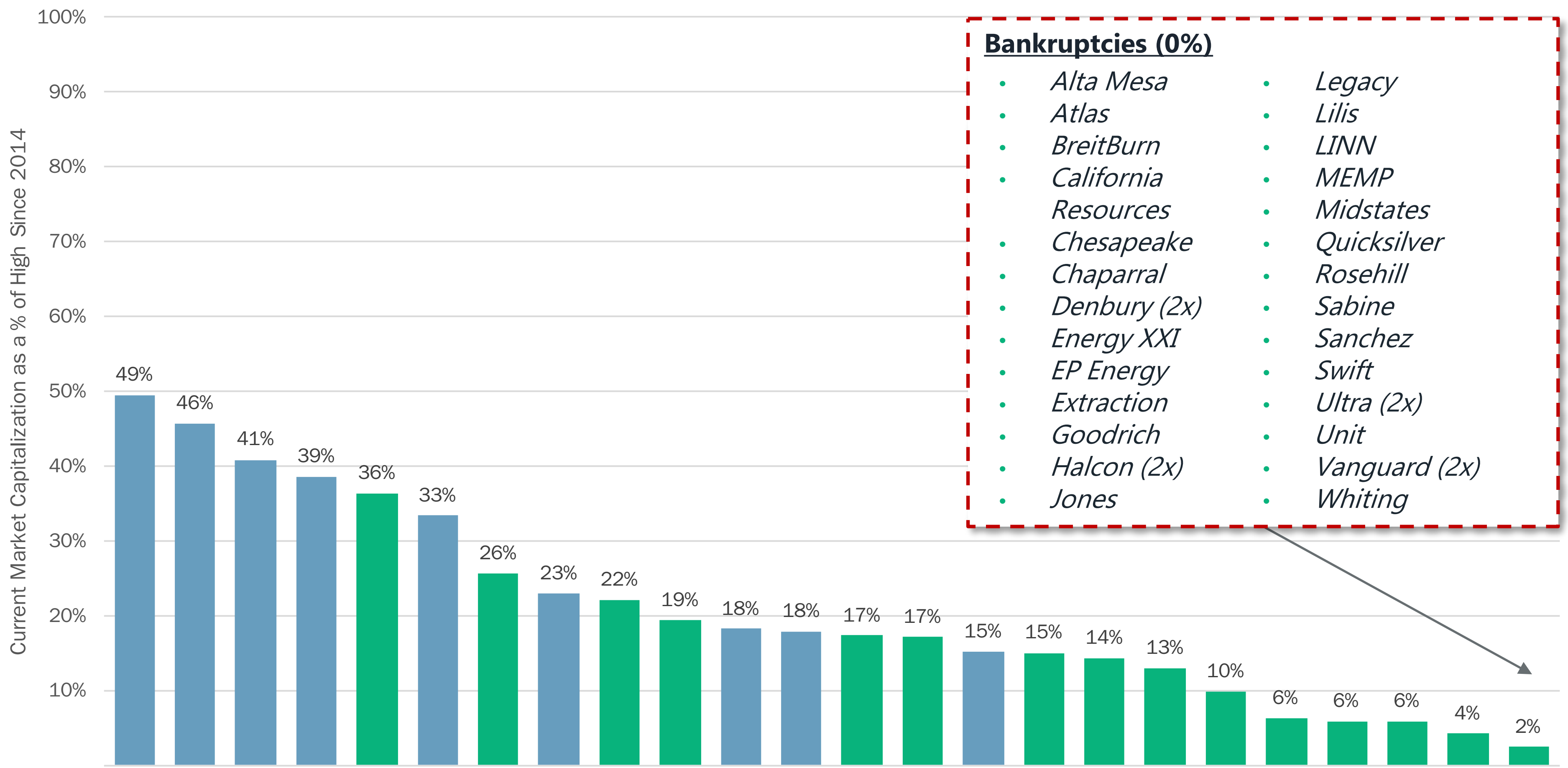
Selected E&P Share Price Performance vs S&P 500 Since 2014



E&P stocks are down significantly on a nominal basis, but the underperformance is even more evident relative to the broader market outperformance

Source: Bloomberg as of August 11, 2020.

Market Capitalization of Selected Public E&Ps (% of High Since 2014)



Ticker:	PXD	COG	COP	EOG	PDCE	CXO	EQT	CLR	XEC	CNX	NBL	OXY	OVV	MRO	APA	DVN	RRC	CPE	SWN	SM	HPR	QEP	OAS	GPOR
Mkt Cap. Lost ($B):	$18	$10	$63	$47	$3	$21	$12	$23	$11	$9	$23	$68	$15	$23	$34	$28	$13	$3	$16	$6	$1	$6	$6	$6

■ Large-Cap ($5 - $75 Billion EV)   ■ SMID-Cap ($1 - $5 Billion EV)

Producers are currently trading near historical lows and <u>have lost over $450 billion of market cap since 2014</u>

Source: Bloomberg as of August 11, 2020.

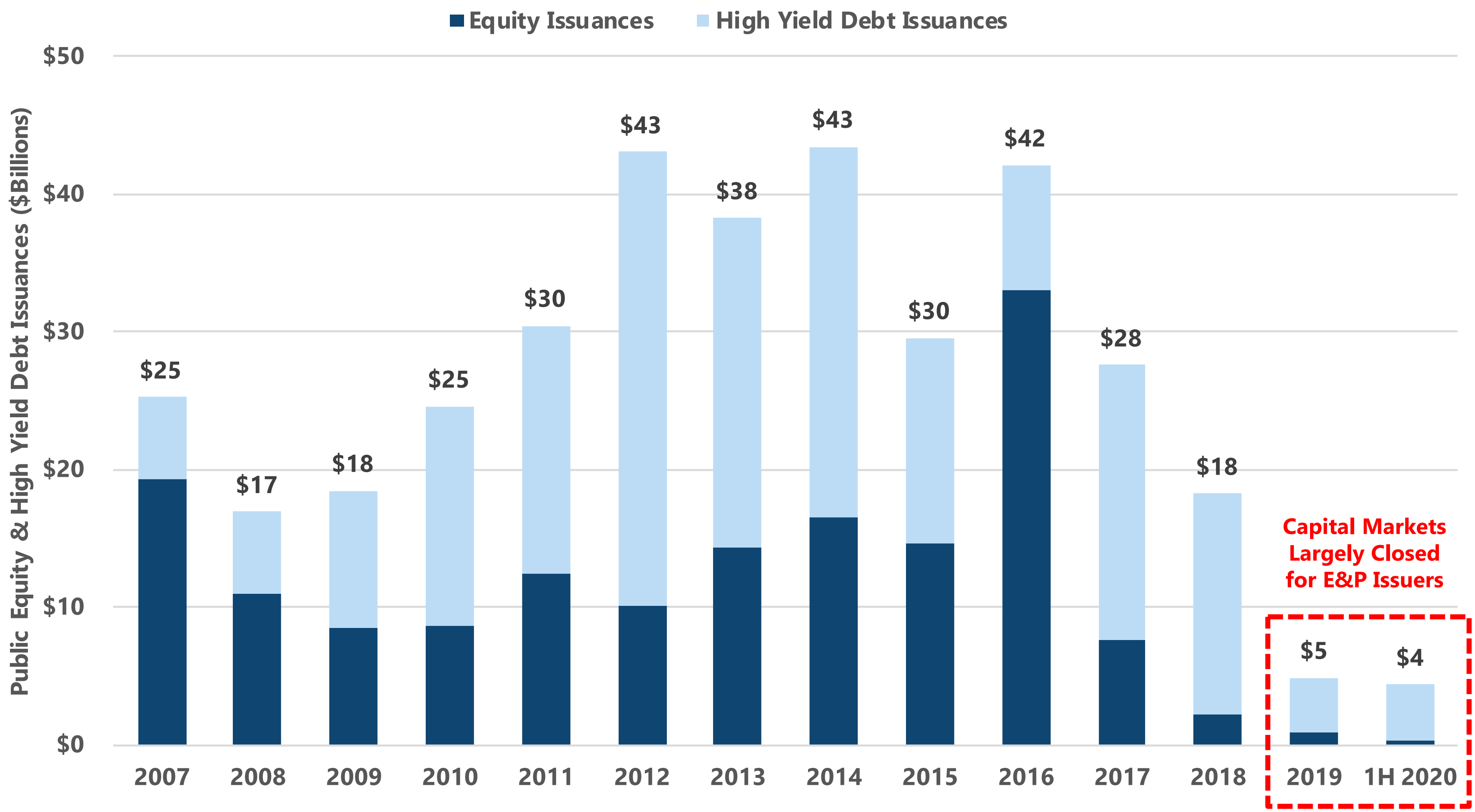
KAYNE ANDERSON ENERGY FUNDS

Previously Accommodating Capital Markets Are Now Largely Shut…

Kayne Anderson
Capital Advisors, L.P.

E&P Public Equity and Non-Investment Grade Debt Issuances

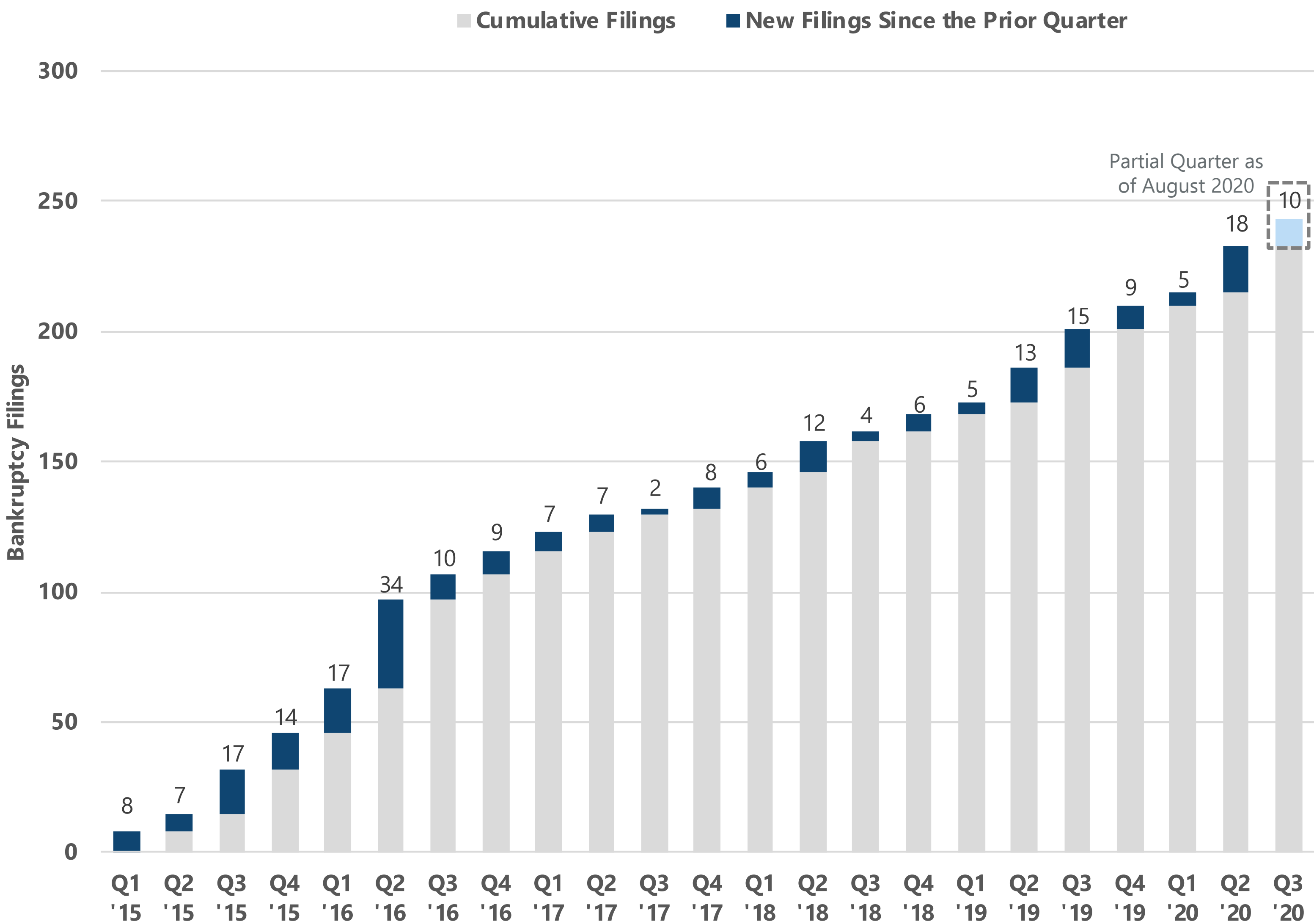
- With capital markets largely closed, E&P companies are forced to fund capex within cash flow
- First lien debt capital is also contracting; borrowing base reductions for public oil-weighted E&Ps averaged 28% in Spring 2020
- Industry faces significant refinancing risks for its massive burden of outstanding high-yield debt; $80 billion of debt maturities coming between 2021 and 2026



Source: Tudor, Pickering, Holt and Co.

Energy Bankruptcy Filings Since 2015

- The combination of reduced cash flows, expanding leverage metrics and challenging conditions for refinancing debt maturities is leading to a significant increase in bankruptcies and section 363 corporate liquidations



Highly Distressed E&Ps / Rumored to File Near-Term

Source: All energy industry bankruptcy filings since 2015 per Haynes and Boone, LP; Bloomberg; Equity Research.

What Has Caused The E&P Industry's Chronic Underperformance?

Aggressive Reserves / Financial Assumptions	+	Abundant Access to Capital	+	Emphasis on Growth Over Value	+	Excessive G&A / Misaligned Incentives	=	Poor Stakeholder Returns

Key Factors Contributing to Poor E&P Industry Returns

- The industry realized consistent annual improvements in well performance due to technological advancements (e.g., longer laterals, larger fracs, tighter cluster spacing, etc.)
- Widespread belief that well performance would continue to improve led to increasingly aggressive technical assumptions….and higher valuations
  - Reserves risks associated with full-field development – such as geologic heterogeneity and parent-child well interference – were largely underappreciated during acquisition underwriting
- Abundant access to capital supported robust M&A activity and encouraged accelerated development before well spacing issues were fully understood
- Companies with high production growth rates and deep drilling inventories were rewarded by public investors with premium valuations - encouraging other public companies to aggressively pursue acquisitions that would provide exposure to high growth basins (such as the Permian and SCOOP/STACK)
- Management incentive structures rewarded production and EBITDA growth over absolute shareholder returns
  - As a result, management teams maintained bloated G&A budgets to support very active drilling programs which further impacted shareholder returns

KAYNE ANDERSON ENERGY FUNDS

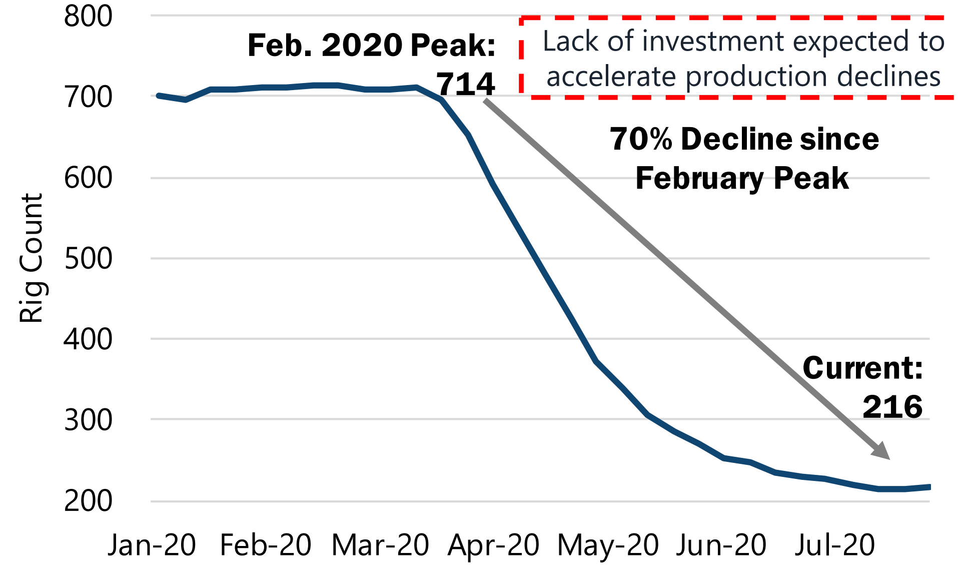
Distressed Industry Backdrop May Prove to Be Bullish for Commodity Prices

Kayne Anderson
Capital Advisors, L.P.

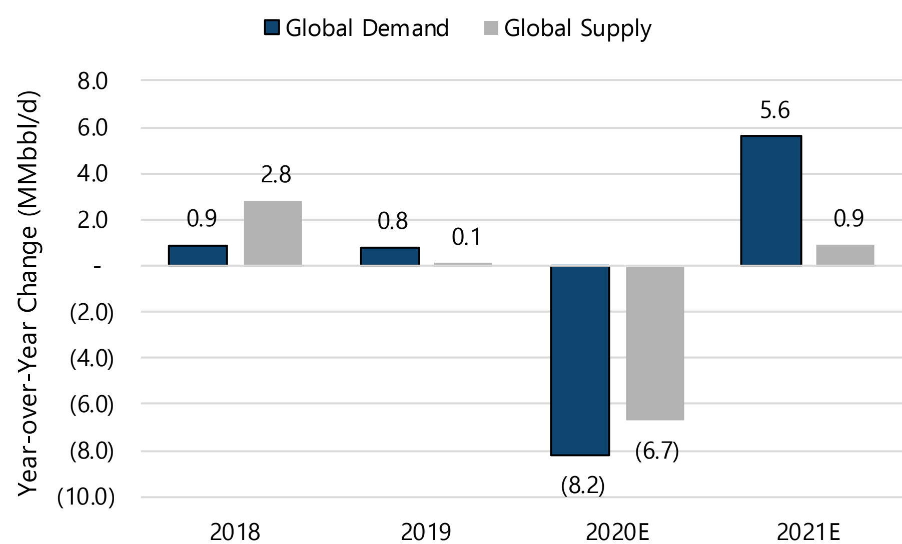
Current industry distress and under-investment is expected to lead to a crude supply shortfall as demand continues to recover from COVID-19 losses

- Although commodity prices have partially rebounded from recent lows, **prices remain well below the cost of production for a large swath of global reserves**
- Financial distress in the E&P industry – hobbled by a lack of external capital and, in the case of US shale production, high production decline rates – has significantly reduced the capacity for future growth
  - Since February 2020, U.S. onshore rig count has plummeted by over ~70%
  - RS Energy Group estimates its U.S. onshore coverage universe will cut 2020 capex by 50% from 2019 levels
  - Prolonged low oil price environment will continue to lead to a notable roll-over in U.S. production
- We believe a significant oil supply shortfall could be created as crude demand continues its recovery with oil producers unable to ramp supply
  - In this scenario, a rapid drawdown of global storage stocks would take place beginning as early as 2021 and would be **bullish for crude and natural gas prices (due to reduced associated gas production)**

U.S. Active Horizontal Rig Count



Global Oil Supply / Demand Growth Forecast



Source: IEA, OPEC, EIA, Baker Hughes, Evercore ISI Energy Research.

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KAEF VII Portfolio Review

KAYNE ANDERSON ENERGY FUNDS

Fund Performance Summary | KAEF VII

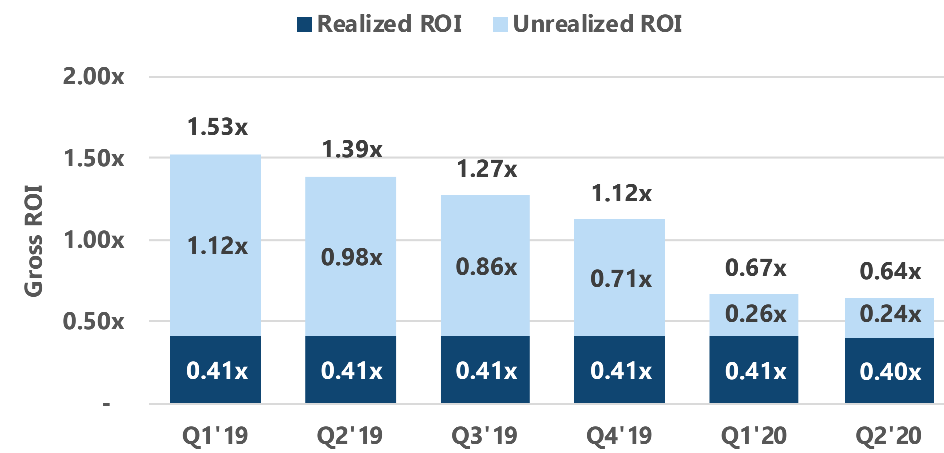
Kayne Anderson
Capital Advisors, L.P.

Fund Update

KAEF VII is currently marked at a -**22.6% gross (-27.2% net) IRR** and **0.64x gross (0.61x net) ROI**

- KAEF VII has called 97% of commitments (inclusive of the 5% call in June 2020) and has distributed $708 million to date representing 36% of contributed capital
- $1.8 billion invested (86% of commitments) as of June 2020
- Expect to issue an additional capital call of 3-5% in 2020 which will be primarily used to fund capital needs at Kraken II, Casillas, Native and Riverbend

Recent Valuation History (Gross ROI)



KAEF VII Portfolio Value Drivers

Company	Invested ($MM)	Q2'20 Value ($MM)	Commentary
Kraken Oil & Gas	$178.6	$155.8	• Acquired ~102,000 net acres and ~2,800 boe/d in the Williston Basin • Large inventory of repeatable, highly economic horizontal development opportunities in the Middle Bakken formation; over 150 wells drilled to date • Not running any rigs due to current market environment; grown production to ~16 Mboe/d
Casillas Petroleum Corp	$238.2	$94.4	• Acquired 56,900 net acres in the core of the SCOOP oil play • Large inventory of delineated horizontal development opportunities in the Sycamore and Woodford shales providing the ability to capitalize on a recovery in either oil, gas or NGL prices • Drilled and completed 71 horizontal wells to date, fully delineating the position
Riverbend Oil & Gas	$112.5	$67.9	• Acquired ~8,600 net acres in the Midland with a substantial runway of high quality operated locations surrounded by offset development • Drilled and completed five wells to date with positive overall results • Expect to recommence development activity in Q4 2020 depending on commodity prices
Native Exploration Holdings, LLC	$192.0	$49.9	• Assembled over 19,300 net leasehold and mineral acres in areas of the Mid-Continent • Drilled and completed five wells to date (4 Woodford, 1 Mississippian) • 2020 development plans currently on hold due to commodity prices and tight liquidity

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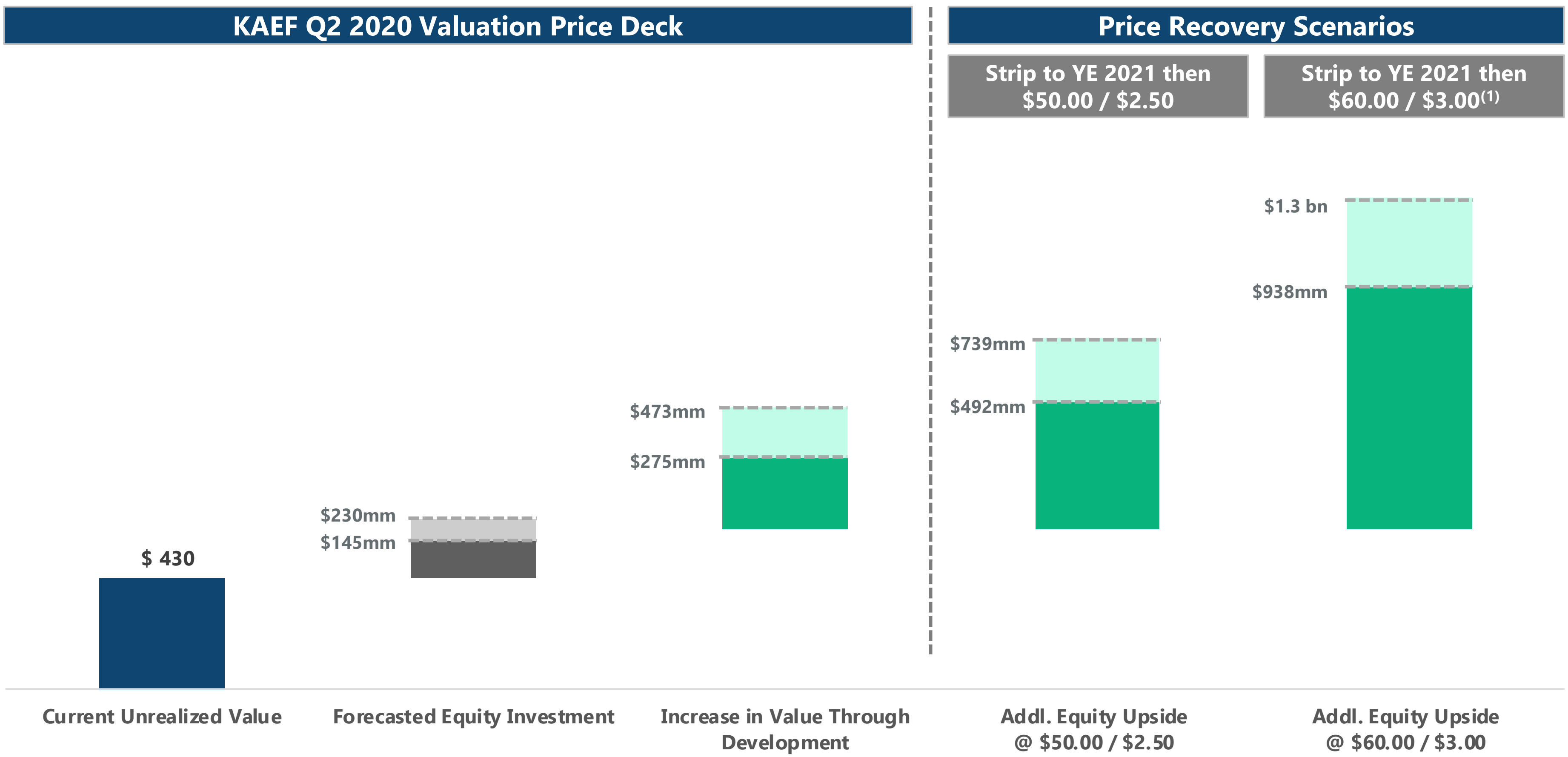
KAEF VII Forecasted Portfolio Value and Returns

- KAEF VII is currently forecasted to generate **~$375 million (mid-point) of gross incremental profit** to investors relative to the Fund's Q2 2020 valuation at KAEF's Q2 Valuation Price Deck



Unrealized Value:	**$430mm**		**$850mm - $1.1 bn**	**$1.1 bn - $1.4 bn**	**$1.5 bn - $1.9 bn**
Gross ROI:	**0.64x**		**0.82x - 0.92x**	**0.93x – 1.06x**	**1.16x – 1.33x**

(1) 60.00 / $3.00 flat price deck scenario assumes a 15% capex uplift on wells drilled after YE 2021 to account for expected service cost inflation in a higher commodity price environment.

KAYNE ANDERSON ENERGY FUNDS

Fund Performance Forecast | KAEF VII Forecast Detail

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	Current Valuation					Forecasted Fund Returns (YE 2024 Exit)			
	KAEF Q2 2020 Valuation Price Deck					KAEF Q2 2020 Valuation Price Deck		Strip to Year-End 2021 then:	
								$50.00 / $2.50	$60.00 / $3.00(2)
	Invested ($MM)	Realized Value ($MM)	Unreal. Value ($MM)	Total Value ($MM)	Gross ROI (x)	Addl. Invest. ($MM)	Gross ROI (x)	Gross ROI (x)	Gross ROI (x)
Casillas	$ 238	$ -	$ 94	$ 94	0.40x	$55 - $90	0.73x - 0.90x	0.89x - 1.08x	1.26x - 1.54x
Kraken II	179	-	156	156	0.87x	$60 - $80	1.30x - 1.58x	1.71x - 2.09x	2.54x - 3.10x
Native	192	-	50	50	0.26x	$20 - $30	0.52x - 0.64x	0.64x - 0.78x	0.83x - 1.02x
Riverbend Permian II	113	-	68	68	0.60x	$10 - $30	1.43x - 1.74x	1.66x - 2.03x	2.04x - 2.49x
Other Unrealized Investments(1)	494	-	55	55	0.11x	-	0.08x - 0.09x	0.10x - 0.12x	0.17x - 0.20x
Substantially Realized Investments(1)	550	707	8	715	1.30x	-	1.30x - 1.30x	1.30x - 1.30x	1.30x - 1.30x
Total EF VII	**$ 1,765**	**$ 707**	**$ 430**	**$ 1,137**	**0.64x**	**$145 - $230**	**0.82x - 0.92x**	**0.93x - 1.06x**	**1.16x - 1.33x**
						Increase in Unrealized Value ($MM):	*$275 - $473*	*$492 - $739*	*$938 - $1,284*

(1) Other Unrealized Investments includes: Alamo Resources III, Balidor Oil & Gas, Beacon E&P Resources II, Monadnock Resources, and Triumph Energy Partners; Substantially Realized Investments includes: Amistad Energy Partners, Canyon Midstream II, Corlena Oil Company III, Haymaker Minerals and Royalties II, Invictus Energy, Phoenix Natural Resources, Resource Rock and Silver Hill Energy Partners II.
(2) $60.00 / $3.00 flat price deck scenario assumes a 15% capex uplift on wells drilled after YE 2021 to account for expected service cost inflation in a higher commodity price environment.

KAYNE ANDERSON ENERGY FUNDS

Key Near-Term Strategic Processes

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Kraken Consolidation

Kraken
OIL & GAS

- Kraken I – KAEF V
- Kraken II – KAEF VII
- Kraken III – KAEF VIII

Strategic Process Update

- Evaluating potential consolidation of KAEF's three Kraken entities into one streamlined organization
    - Achieves several corporate efficiencies, including the ability to direct development capital towards the highest quality inventory across the Kraken portfolio
    - Larger scale provides greater access to capital and potential exit avenues
- As part of a potential consolidation, the debt held at the three individually-capitalized Kraken entities will be refinanced into a single capital structure
- Consolidation expected to be effected through all-equity merger of the three entities
- Potential to present rationale for consolidation to corresponding Advisory Boards in October 2020

Mid-Con Consolidation

CASILLAS PETROLEUM CORP
ACACIA EXPLORATION PARTNERS
TRIUMPH ENERGY PARTNERS
NATiVE EXPLORATION HOLDINGS, LLC

- Acacia – KAEF VIII
- Beacon – KAEF VII
- Casillas I – KAEF VI/VII
- Native – KAEF VII
- Triumph – KAEF VII

Strategic Process Update

- Engaged an investment bank to run a strategic process for potential near-term consolidation of KAEF's Mid-Con assets and to evaluate third-party strategic merger opportunities
    - Immediate benefits from increased scale and corporate cost synergies
    - Allows for enhanced efficiency of future capital investment – all cash flow from combined entity can be directed towards the highest quality inventory in the portfolio
- Consolidation could require approximately $100 million of additional equity investment to protect the Mid-Con portfolio and create significant additional value through future development
- Expect to receive feedback on both the consolidation and recapitalization processes by October

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KAEF VII Fund Performance Summary

KAYNE ANDERSON ENERGY FUNDS

Fund Performance Summary | KAEF VII

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Company	Amount Invested	Realized Value	Unrealized Value	Total Value	Gross IRR	Gross ROI	Total Return
Adventure Exploration Partners III	$ 59,694,943	$ 2,000,000	$ -	$ 2,000,000	(80.3)%	0.03	$ (57,694,943)
Alamo Resource III	9,900,000	-	9,900,000	9,900,000	(0.0)%	1.00	-
Amistad Energy Partners	61,480,000	-	642,054	642,054	(68.7)%	0.01	(60,837,946)
Balidor Oil & Gas	85,437,000	-	3,151,654	3,151,654	(71.0)%	0.04	(82,285,346)
Beacon E&P Resources II	65,824,467	-	26,393,730	26,393,730	(24.2)%	0.40	(39,430,737)
Canyon Midstream II	134,554,000	90,851,527	-	90,851,527	(42.2)%	0.68	(43,702,473)
Casillas Petroleum Resource Partners	238,177,860	-	94,427,241	94,427,241	(22.2)%	0.40	(143,750,619)
Corlena Oil Company III	44,175,000	4,987,824	-	4,987,824	(63.2)%	0.11	(39,187,176)
Haymaker Minerals and Royalties II	12,000,000	-	4,529,084	4,529,084	(32.5)%	0.38	(7,470,916)
Invictus Energy	31,042,137	16,184,349	-	16,184,349	(48.8)%	0.52	(14,857,788)
Kraken Oil & Gas II	178,552,500	-	155,766,820	155,766,820	(3.7)%	0.87	(22,785,680)
Monadnock Resources	87,425,000	-	5,147,513	5,147,513	(54.4)%	0.06	(82,277,487)
Native Exploration Holdings	191,999,950	-	49,926,848	49,926,848	(42.5)%	0.26	(142,073,102)
Phoenix Natural Resources	3,697,500	2,186,273	-	2,186,273	(62.0)%	0.59	(1,511,227)
Resource Rock	44,550,000	80,101,446	-	80,101,446	>100%	1.80	35,551,446
Riverbend Permian II	112,510,000	-	67,929,786	67,929,786	(18.0)%	0.60	(44,580,214)
Silver Hill Energy Partners II	158,610,361	510,773,654	2,567,995	513,341,649	>100%	3.24	354,731,288
Triumph Energy Partners	245,786,200	-	9,937,830	9,937,830	(96.0)%	0.04	(235,848,370)
	$ 1,765,416,918	**$ 707,085,073**	**$ 430,320,555**	**$ 1,137,405,628**	**(22.6)%**	**0.64**	**$ (628,011,290)**
				Net Return	**(27.2%)**	**0.61**	

Notes:

1. Performance data is provided through June 30, 2020. All returns are calculated before fees. Past performance is not a guarantee of future performance.
2. Unrealized value is based on the values of investments held at June 30, 2020, determined in the good faith discretion of Kayne Anderson.

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Investment in Kayne Anderson Energy Funds (together, the "Partnerships" or the "Funds", and each individually, the "Partnership" or "Fund") involves a high degree of risk. There can be no assurance that the Partnership's investment objectives can be achieved, or that a Limited Partner will receive a return of capital. In addition, there may be occasions when the General Partner of the respective Partnership and its affiliates encounter potential conflicts of interest in connection with the Partnership. For a more detailed explanation of the risks of the Partnerships, please review the Partnership's Confidential Private Placement Memorandum.

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Past performance is no guarantee of future results. An investment in the Partnership could suffer loss.

PERFORMANCE REPORT

MWRA EMPLOYEES' RETIREMENT SYSTEM

September, 2020

Sebastian Grzejka, CAIA, Senior Consultant

Lebo McCallum, Analyst

GOALS & OBJECTIVES

Investment Return Objective

"Its primary goal is to provide promised benefits to participants and beneficiaries of the MWRA Employees' Retirement system. Plan assets should be equal to or greater than the present value of the projected benefit obligations ("fully funded"). When Plan assets are less than the present value of projected benefit obligations, a schedule will be established and a plan will be in place to meet a fully funded status. When achieving return objectives required to fully fund the system, the Board is intent on controlling risk. Consistency of returns and risk of loss are primary considerations. The Board has also determined that the annual performance of plan assets should not vary substantially from returns achieved by other public pension funds with similar goals and objectives."

Return Expectations

The investment growth should be maintained in such a manner that the minimum nominal rate of return does not cause a negative real rate of return over a full market cycle:

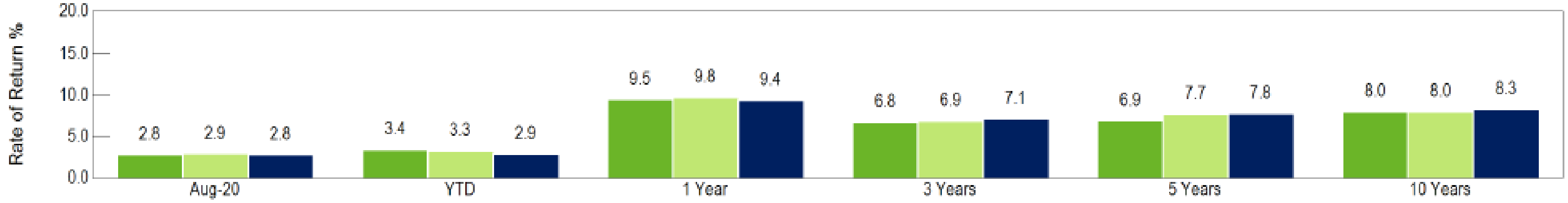
- **Time Horizon:** Return assumptions will be based on a ten year time horizon with a detailed review and analysis to be made at least annually to monitor allocations and assumptions. Should a manager deviate from proscribed mandate or expected risk and return profile by a consequential degree, that manager may be reevaluated at any time.

- **Liquidity Needs:** Presently contributions exceed plan withdrawals to provide benefits, payouts, and/or plan expenses. Portfolio liquidity will be managed based on the cash flow needs of the System.

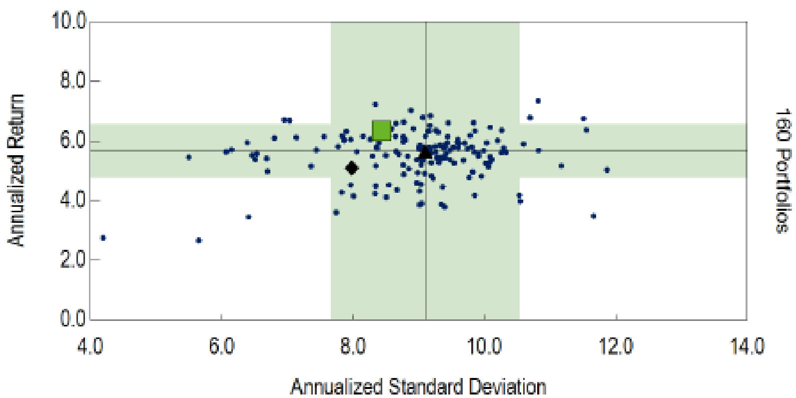
- **Regulatory Considerations:** Assets of this Fund shall be invested in a manner consistent with the fiduciary standards established under Code of Massachusetts Regulations 840 ("840 CMR"). The Board shall also use as precedent the Employee Retirement Income Security Act (ERISA).

EXECUTIVE SUMMARY

Net Return Summary
Ending August 31, 2020



20 Years Ending June 30, 2020



Statistics Summary

	Anlzd Ret	Anlzd Std Dev	Rank
Composite	6.3%	8.4%	13
Allocation Index	5.1%	8.0%	78
Policy Index	5.6%	8.5%	56
InvMetrics Public DB Gross Median	5.7%	9.1%	--

Performance

- The Composite returned 2.8% for the month underperforming the Allocation Index and performing in line with the Policy Index which returned 2.9% and 2.8% respectively.
- Equities continued their winning streak in August—marking the fifth straight month of gains—amid improving investor sentiment bolstered by ongoing stimulus. The S&P 500 Index returned 7.2%, gaining in all but five trading days, for the month. Non-US equities benefited from ongoing weakness in the dollar with the MSCI EAFE and MSCI Emerging Markets indexes up 5.1% and 2.2%, respectively. The portfolios Domestic Equity returned 6.6%(net) ,outperforming their global counter-parts, non US equity which returned 4.4% (net) for the month.
- In fixed income, inflation expectations rose, leading to an uptick in global yields. The Fixed Income Composite returned -0.1% (net) for the month while the BC Agg and BC US HY returned -0.8% and 1.0% respectively
- This brings the overall performance on a trailing one year period return to 9.5%, while the allocation and policy index returned 9.8% and 9.4%, respectively for the same period.

20 years Risk/Return is as of 06/30/2020. Chart reflects universe data on quarter end months only.
Returns for 20 years Risk/Return and Statistics Summary are gross of fees.
Since inception return is 8.5% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.

MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	**599,468,254**	**100.0**	**100.0**	**2.8**	**3.4**	**9.5**	**6.8**	**6.9**	**8.0**	**6.8**	**Jan-86**
Allocation Index				*2.9*	*3.3*	*9.8*	*6.9*	*7.7*	*8.0*	*--*	*Jan-86*
Policy Index				*2.8*	*2.9*	*9.4*	*7.1*	*7.8*	*8.3*	*--*	*Jan-86*
Total Balanced	**4,151,175**	**0.7**	**0.0**	**2.0**	**0.4**	**5.4**	**2.5**	**4.5**	**--**	**3.8**	**Dec-10**
PRIT Core Fund	4,151,175	0.7		2.4	1.7	7.8	6.8	8.1	8.7	6.7	Apr-99
60% S&P 500 / 40% BBgBarc Aggregate				*4.0*	*9.2*	*16.2*	*11.1*	*10.6*	*10.7*	*6.4*	*Apr-99*
Total Domestic Equity	**171,793,743**	**28.7**	**26.0**	**6.6**	**8.0**	**19.3**	**14.5**	**12.8**	**14.5**	**7.5**	**May-99**
Russell 3000				*7.2*	*9.4*	*21.4*	*13.9*	*13.9*	*14.9*	*7.0*	*May-99*
Large Cap	**130,351,543**	**21.7**	**20.0**	**7.0**	**12.0**	**24.3**	**16.9**	**14.3**	**--**	**14.0**	**Dec-10**
Rhumbline Advisors S&P 500 Index Fund	56,537,056	9.4	8.0	7.2	9.7	21.9	14.4	14.4	15.0	8.8	Apr-97
S&P 500				*7.2*	*9.7*	*21.9*	*14.5*	*14.5*	*15.2*	*8.8*	*Apr-97*
Coho Relative Value Equity	35,431,929	5.9	6.0	3.8	1.6	14.2	11.7	--	--	11.2	Mar-16
Russell 1000 Value				*4.1*	*-9.3*	*0.8*	*4.5*	*7.5*	*11.0*	*9.1*	*Mar-16*
Polen Focused Growth	38,382,558	6.4	6.0	10.1	27.1	38.9	26.2	--	--	22.4	Feb-16
Russell 1000 Growth				*10.3*	*30.5*	*44.3*	*24.2*	*20.7*	*19.0*	*23.1*	*Feb-16*
Small Cap	**41,442,200**	**6.9**	**6.0**	**5.4**	**-4.3**	**4.4**	**7.6**	**8.7**	**--**	**11.1**	**Dec-10**
Boston Partners Small Cap Value	20,671,244	3.4	3.0	6.1	-18.1	-8.0	-0.8	3.4	9.2	9.4	Feb-97
Russell 2000 Value				*5.4*	*-17.7*	*-6.1*	*-1.4*	*4.4*	*8.7*	*7.9*	*Feb-97*
Loomis Sayles Small Cap Growth	20,770,956	3.5	3.0	4.7	10.8	17.3	16.0	13.6	16.4	7.0	Jan-97
Russell 2000 Growth				*5.9*	*6.2*	*17.3*	*10.9*	*10.5*	*14.1*	*7.2*	*Jan-97*
Total Non-US Equity	**129,793,980**	**21.7**	**21.0**	**4.4**	**-0.5**	**10.7**	**3.5**	**6.4**	**5.1**	**4.4**	**Mar-99**
International Equity	**104,034,091**	**17.4**	**15.0**	**5.1**	**0.9**	**11.8**	**5.0**	**6.8**	**5.9**	**3.9**	**Sep-05**
SEG Baxter Street	36,672,365	6.1	5.0	3.9	4.0	11.4	8.5	--	--	11.2	May-16
MSCI ACWI ex USA				*4.3*	*-3.1*	*8.3*	*2.6*	*5.8*	*5.3*	*6.5*	*May-16*
LMCG Small Cap International	29,765,510	5.0	5.0	6.5	-10.4	1.5	-1.6	--	--	-1.0	Aug-17
MSCI EAFE Small Cap				*7.5*	*-3.5*	*10.7*	*2.6*	*6.8*	*8.6*	*2.8*	*Aug-17*
Schroder International Alpha Trust Class 1	37,596,216	6.3	5.0	5.1	7.7	19.9	7.1	8.6	--	6.9	Mar-12
MSCI ACWI ex USA				*4.3*	*-3.1*	*8.3*	*2.6*	*5.8*	*5.3*	*4.5*	*Mar-12*
Emerging Markets Equity	**25,759,889**	**4.3**	**6.0**	**1.8**	**-5.7**	**6.6**	**-1.6**	**4.8**	**--**	**0.9**	**Nov-13**
MSCI Emerging Markets				*2.2*	*0.4*	*14.5*	*2.8*	*8.7*	*3.8*	*3.4*	*Nov-13*
LMCG Emerging Markets	25,759,889	4.3	6.0	1.8	-5.7	6.6	-1.6	4.8	--	0.9	Dec-13
MSCI Emerging Markets				*2.2*	*0.4*	*14.5*	*2.8*	*8.7*	*3.8*	*3.6*	*Dec-13*

Since inception return is 8.5% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.
In November 2019, Loomis Sayles and Schroders transitioned from a mutual fund to a CIT structure. Performance prior to transitioning to the CIT investment vehicle is linked to mutual fund performance history.

MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fixed Income	**154,659,408**	**25.8**	**27.0**	**-0.1**	**8.3**	**8.4**	**5.5**	**5.5**	**5.5**	**6.7**	**Mar-99**
Loomis Sayles Multisector Full Discretion Trust	47,889,949	8.0	8.0	-0.4	10.3	11.8	6.4	6.8	6.6	8.0	Mar-99
BBgBarc US Aggregate TR				*-0.8*	*6.9*	*6.5*	*5.1*	*4.3*	*3.7*	*5.0*	*Mar-99*
BBgBarc US High Yield TR				*1.0*	*1.7*	*4.7*	*4.9*	*6.5*	*6.9*	*6.8*	*Mar-99*
Rhumbline TIPS	28,427,489	4.7	5.0	1.1	9.5	8.8	5.7	--	--	4.6	Jun-16
BBgBarc US TIPS TR				*1.1*	*9.6*	*9.0*	*5.7*	*4.6*	*3.7*	*4.7*	*Jun-16*
Lord Abbett Core Fixed Income	23,332,291	3.9	4.0	-0.6	7.2	6.6	--	--	--	6.9	Apr-18
BBgBarc US Aggregate TR				*-0.8*	*6.9*	*6.5*	*5.1*	*4.3*	*3.7*	*7.1*	*Apr-18*
Garcia Hamilton Fixed Income Aggregate	45,572,586	7.6	8.0	-0.4	7.3	6.6	--	--	--	6.5	Apr-18
BBgBarc US Aggregate TR				*-0.8*	*6.9*	*6.5*	*5.1*	*4.3*	*3.7*	*7.1*	*Apr-18*
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	9,243,777	1.5	2.0	1.0	0.1	2.3	--	--	--	2.0	Aug-19
Credit Suisse Leveraged Loan				*1.5*	*-1.5*	*0.6*	*3.1*	*3.7*	*4.5*	*0.3*	*Aug-19*
Invesco Mortgage Recovery Loans Feeder Fund	193,316	0.0		0.0	-0.5	-4.8	4.1	3.2	8.7	12.4	Apr-10
BBgBarc US Aggregate TR				*-0.8*	*6.9*	*6.5*	*5.1*	*4.3*	*3.7*	*4.1*	*Apr-10*
Total Hedge Fund	**35,559,479**	**5.9**	**6.0**	**1.1**	**0.2**	**1.9**	**2.5**	**2.0**	**3.5**	**3.0**	**Oct-06**
PRIM Portfolio Completion Strategies	13,205,204	2.2		1.4	-4.6	-3.5	1.4	2.2	3.9	3.3	Oct-06
Corbin Pinehurst Partners	10,691,028	1.8		0.4	2.1	5.2	--	--	--	4.7	Nov-18
HFRI Fund of Funds Composite Index				*2.1*	*2.8*	*5.5*	*3.1*	*2.8*	*3.1*	*4.9*	*Nov-18*
UBS Neutral Alpha Strategies	10,924,215	1.8		1.7	5.3	7.4	--	--	--	5.5	Nov-18
HFRI Fund of Funds Composite Index				*2.1*	*2.8*	*5.5*	*3.1*	*2.8*	*3.1*	*4.9*	*Nov-18*
Entrust Peru Wind Down	739,032	0.1		-0.2	-2.3	-5.7	--	--	--	-5.3	Dec-17
HFRI Fund of Funds Composite Index				*2.1*	*2.8*	*5.5*	*3.1*	*2.8*	*3.1*	*2.8*	*Dec-17*
Other	**5,106,518**	**0.9**	**0.0**	**0.0**	**0.6**	**1.7**	**1.9**	**1.3**	**--**	**0.7**	**Dec-10**
Cash Account	5,106,518	0.9		0.0	0.6	1.7	1.9	1.3	0.7	1.9	Feb-00
91 Day T-Bills				*0.0*	*0.4*	*1.0*	*1.6*	*1.1*	*0.6*	*1.6*	*Feb-00*

Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.

Corbin Pinehurst Partners and Entrust Peru Wind Down are preliminary as of 08/31/2020, and subject to change when finalized.

MWRA Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Estate	**49,564,695**	**8.3**	**10.0**	**0.0**	**-0.5**	**4.0**	**6.6**	**8.0**	**10.4**	**7.7**	**Apr-99**
NCREIF Property Index				*0.0*	*-0.3*	*2.7*	*5.4*	*6.8*	*9.7*	*8.5*	*Apr-99*
Morgan Stanley Prime Property ($2.8m commitment in '95)	19,647,060	3.3		0.0	-1.3	1.6	5.7	7.5	11.4	8.4	Sep-95
TA Realty Core Property Fund, LP ($15m commitment in '19)	19,914,639	3.3		0.0	1.1	5.6	--	--	--	4.5	Jun-19
Invesco Mortgage Recovery II ($3M commitment in '15)	904,730	0.2		0.0	0.7	0.7	12.3	--	--	11.5	Oct-15
Landmark VI ($2m commitment in '11)	109,233	0.0		0.0	-5.1	-15.8	-9.3	-4.8	--	4.4	Jul-11
Landmark VIII ($4m commitment in '17)	1,208,242	0.2		0.0	-7.3	-0.2	--	--	--	13.7	Nov-17
Courtland/Mesirow MFire ($2m commitment in '11)	659,011	0.1		0.0	-5.4	-10.2	-1.0	3.4	--	2.7	May-12
Cerberus ($1.5m commitment in '12)	645,184	0.1		0.0	0.8	8.2	8.6	7.8	--	11.7	May-13
TA Realty Fund X LP ($3.5m commitment in '12)	385,059	0.1		0.0	-6.6	-4.2	10.3	9.2	--	9.6	May-13
TerraCap Partners III, LP ($2.6m commitment in '15)	1,782,028	0.3		0.0	1.0	4.9	6.5	11.3	--	11.0	Jul-15
TerraCap Partners IV, LP ($4m commitment in '17)	4,309,509	0.7		0.0	-0.8	13.1	--	--	--	9.3	Nov-17
Total Private Equity	**48,839,257**	**8.1**	**10.0**	**0.0**	**-7.6**	**-5.6**	**6.3**	**2.8**	**11.4**	**8.6**	**Apr-99**
C|A US All PE				*0.0*	*-10.1*	*-5.5*	*7.4*	*8.3*	*11.9*	*11.5*	*Apr-99*
NASDAQ W/O Income				*9.6*	*31.2*	*47.9*	*22.4*	*19.8*	*18.7*	*7.6*	*Apr-99*
PRIM Vintage Year 2008 ($3m commitment in '08)	844,742	0.1		0.1	-16.5	-12.5	6.8	12.3	16.4	6.6	Jun-08
PRIM Vintage Year 2009 ($1m commitment in '09)	127,589	0.0		0.0	-10.1	1.2	15.1	16.5	14.5	7.0	Nov-09
PRIM Vintage Year 2010 ($1m commitment in '10)	434,190	0.1		-0.1	1.2	-7.0	10.8	12.8	7.7	7.0	Jun-10
PRIM Vintage Year 2011 ($1.5m commitment in '11)	889,842	0.1		-0.1	-2.8	-1.2	12.0	16.5	--	2.8	May-11
PRIM Vintage Year 2012 ($1m commitment in '12)	608,461	0.1		0.5	5.3	11.7	13.0	12.9	--	-15.5	Jun-12
PRIM Vintage Year 2014 ($2m commitment in '14)	1,638,709	0.3		0.0	-3.8	5.5	18.3	15.7	--	0.2	Jun-14
PRIM Vintage Year 2017 ($2m commitment in '17)	1,043,728	0.2		0.4	-7.5	1.0	4.3	--	--	3.5	May-17
PRIM Vintage Year 2020 ($5m commitment in '20)	156,371	0.0		0.0	--	--	--	--	--	-6.5	Mar-20
Alcentra European DLF ($5m commitment in '14)	1,099,748	0.2		0.0	-5.5	-1.4	0.2	2.7	--	4.0	Jan-15
Ascent Fund IV ($2m commitment in '04)	31,175	0.0		0.0	-0.8	-2.5	-54.2	-47.8	-32.5	-21.7	Jul-04
Ascent Fund IV-B ($1m commitment in '16)	159,229	0.0		0.0	-27.4	-42.5	-21.3	--	--	-14.1	Jul-16
Ascent Fund V ($2m commitment in '08)	1,591,658	0.3		0.0	-12.4	-10.3	-5.7	-1.1	6.1	4.0	Oct-08
Ascent VI ($3m commitment in '15)	2,681,422	0.4		0.0	-8.8	-9.5	3.2	--	--	-0.1	Dec-15
Castile Ventures III, L.P. ($3m commitment in '07)	13,978	0.0		0.0	-20.7	-88.9	-65.5	-52.2	-34.3	-30.1	Jan-08
CVI Credit Value Fund IV A LP ($6m commitment in '17)	5,718,477	1.0		0.0	-9.6	-6.9	--	--	--	0.9	Dec-17

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.

Market values for Courtland/Mesirow MFire and Cerberus are stated as of 3/31/2020 and adjusted for cash flows. All other Real Estate and Private Equity managers are as of 6/30/2020 and are adjusted for cash flows.

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Invesco Fund IV ($3m commitment in '03)	13,621	0.0		0.0	-3.1	-28.5	-14.8	-8.1	--	--	Feb-04
Invesco Fund VI ($5m commitment in '13)	5,979,079	1.0		0.0	-5.1	-3.9	8.5	8.1	--	11.2	Jul-13
Kayne Energy Fund VII ($5m commitment in '15)	1,227,483	0.2		0.0	-68.6	-75.9	-36.2	--	--	-19.3	Jan-16
Foundry 2007 ($3m commitment in '07)	199,273	0.0		0.0	-14.6	-34.5	-21.2	-27.2	5.2	15.0	Dec-07
Foundry 2010 ($3m commitment in '10)	3,180,760	0.5		0.0	-2.0	-9.8	10.7	2.6	--	7.5	Jan-11
Foundry 2010 Annex ($0.4m commitment in '15)	198,885	0.0		0.0	2.3	-8.9	31.1	13.9	--	13.9	Sep-15
Pinebridge PEP V ($6m commitment in '07)	554,843	0.1		0.0	-15.9	-19.1	-6.5	-1.2	--	--	Mar-08
Landmark XV ($3m commitment in '13)	1,151,401	0.2		0.0	-16.0	-7.1	4.7	5.5	--	9.7	Nov-13
JFL Equity Investors IV, L.P. ($6m commitment in '16)	6,917,392	1.2		0.0	5.8	43.6	44.4	--	--	34.3	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP ($4m commitment in '17)	3,679,243	0.6		0.0	6.2	8.5	16.0	--	--	14.4	Feb-17
Park Square Credit Opportunities III ($3m commitment in ’17)	2,542,643	0.4		0.0	4.0	8.6	--	--	--	6.2	Feb-18
Ironsides Constitution Opportunities ($3m commitment in '18)	2,127,660	0.4		0.0	2.8	9.1	--	--	--	8.0	Sep-18
HarbourVest Dover Street X ($9m commitment in '20)	906,202	0.2		0.0	--	--	--	--	--	0.0	Jun-20
Hamilton Lane Secondary Fund V LP ($9m commitment in '20)	1,362,686	0.2		0.0	--	--	--	--	--	0.0	Jul-20
JFL Equity Investors V, L.P. ($8m commitment in '20)	1,758,767	0.3		--	--	--	--	--	--	--	Sep-20

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.
Invesco Fund IV, Invesco Fund VI, Pinebridge PEP V, Private Advisors Small Co. Coinvestment Fund, HarbourVest Dover Street X, and Hamilton Lane Secondary Fund Vare valued as of 3/31/2020 and adjusted for cashflows. All other Private Equity managers are valued as of 6/30/2020 and are adjusted for cash flows.
JFL Equity Investors V funded in 8/17/2020, performance will be shown with first full month of performance.

NOTES

1 - Results for periods longer than one year are annualized.

2 - Total Balances, Large Cap, Small Cap, and Other Composite performance starts 12/1/2010.

3 - Preliminary Total Composite net of fee since inception return is 6.8% for the current month.

4 - Preliminary Total Composite gross of fee since inception return is 8.5% for the current month.

5 - Targets, Allocation Index, and Policy Index have been updated to reflect new allocation of 06/01/2020.

6 - Policy Index changed from Nasdaq to Cambridge All PE to reflect as of 5/1/2012.

7 - Policy Index Consists of: 20% S&P 500, 6% Russell 2000, 10% MSCI EAFE, 5% MSCI ACWI IMI , 6% MSCI Emerging Markets, 12% BBgBarc US Aggregate TR, 5% BBgBarc US TIPS TR, 8% BBgBarc US Universal TR, 10% NCREIF Property Index, 10% C|A US All PE , 6% HFRI Fund of Funds Composite Index, 2% Credit Suisse Leveraged Loan.

8 - Allocation index consists of: Weighted index of underlying managers to their respective benchmark.

MWRA Employees' Retirement System

ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 8/31/2020	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
PRIT Core Fund	0.49% of Assets	$4,151,175	0.7%	$20,341	0.49%
PIMCO All Asset	No Fee	$0	0.0%	--	--
Rhumbline Advisors S&P 500 Index Fund	0.05% of Assets	$56,537,056	9.4%	$28,269	0.05%
Coho Relative Value Equity	0.50% of First 75.0 Mil, 0.40% of Next 75.0 Mil, 0.35% Thereafter	$35,431,929	5.9%	$177,160	0.50%
Polen Focused Growth	0.65% of Assets	$38,382,558	6.4%	$249,487	0.65%
Boston Partners Small Cap Value	1.00% of Assets	$20,671,244	3.4%	$206,712	1.00%
Loomis Sayles Small Cap Growth	0.45% of Assets	$20,770,956	3.5%	$93,469	0.45%
SEG Baxter Street	1.00% of Assets	$36,672,365	6.1%	$366,724	1.00%
LMCG Small Cap International	0.85% of Assets	$29,765,510	5.0%	$253,007	0.85%
Schroder International Alpha Trust Class 1	0.55% of Assets	$37,596,216	6.3%	$206,779	0.55%
LMCG Emerging Markets	0.64% of Assets	$25,759,889	4.3%	$164,863	0.64%
Loomis Sayles Multisector Full Discretion Trust	0.50% of First 20.0 Mil, 0.40% of Next 20.0 Mil, 0.30% Thereafter	$47,889,949	8.0%	$203,670	0.43%
Rhumbline TIPS	0.05% of First 50.0 Mil, 0.04% Thereafter	$28,427,489	4.7%	$14,214	0.05%
Lord Abbett Core Fixed Income	0.19% of Assets	$23,332,291	3.9%	$44,331	0.19%
Garcia Hamilton Fixed Income Aggregate	0.25% of First 25.0 Mil, 0.20% Thereafter	$45,572,586	7.6%	$103,645	0.23%
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	0.40% of Assets	$9,243,777	1.5%	$36,975	0.40%
Invesco Mortgage Recovery Loans Feeder Fund	No Fee	$193,316	0.0%	--	--
PRIM Portfolio Completion Strategies	No Fee	$13,205,204	2.2%	--	--
Corbin Pinehurst Partners	0.85% of Assets	$10,691,028	1.8%	$90,874	0.85%
UBS Neutral Alpha Strategies	0.90% of Assets	$10,924,215	1.8%	$98,318	0.90%
Entrust Peru Wind Down	0.50% of Assets	$739,032	0.1%	$3,695	0.50%
Cash Account	No Fee	$5,106,518	0.9%	--	--
Morgan Stanley Prime Property ($2.8m commitment in '95)	No Fee	$19,647,060	3.3%	--	--
TA Realty Core Property Fund, LP ($15m commitment in '19)	No Fee	$19,914,639	3.3%	--	--

MWRA Employees' Retirement System

ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 8/31/2020	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
Invesco Mortgage Recovery II ($3M commitment in '15)	No Fee	$904,730	0.2%	--	--
Landmark VI ($2m commitment in '11)	No Fee	$109,233	0.0%	--	--
Landmark VIII ($4m commitment in '17)	No Fee	$1,208,242	0.2%	--	--
Courtland/Mesirow MFire ($2m commitment in '11)	No Fee	$659,011	0.1%	--	--
Cerberus ($1.5m commitment in '12)	No Fee	$645,184	0.1%	--	--
TA Realty Fund X LP ($3.5m commitment in '12)	No Fee	$385,059	0.1%	--	--
TerraCap Partners III, LP ($2.6m commitment in '15)	No Fee	$1,782,028	0.3%	--	--
TerraCap Partners IV, LP ($4m commitment in '17)	No Fee	$4,309,509	0.7%	--	--
PRIM Vintage Year 2008 ($3m commitment in '08)	No Fee	$844,742	0.1%	--	--
PRIM Vintage Year 2009 ($1m commitment in '09)	No Fee	$127,589	0.0%	--	--
PRIM Vintage Year 2010 ($1m commitment in '10)	No Fee	$434,190	0.1%	--	--
PRIM Vintage Year 2011 ($1.5m commitment in '11)	No Fee	$889,842	0.1%	--	--
PRIM Vintage Year 2012 ($1m commitment in '12)	No Fee	$608,461	0.1%	--	--
PRIM Vintage Year 2014 ($2m commitment in '14)	No Fee	$1,638,709	0.3%	--	--
PRIM Vintage Year 2017 ($2m commitment in '17)	No Fee	$1,043,728	0.2%	--	--
PRIM Vintage Year 2020 ($5m commitment in '20)	No Fee	$156,371	0.0%	--	--
Alcentra European DLF ($5m commitment in '14)	No Fee	$1,099,748	0.2%	--	--
Ascent Fund IV ($2m commitment in '04)	No Fee	$31,175	0.0%	--	--
Ascent Fund IV-B ($1m commitment in '16)	No Fee	$159,229	0.0%	--	--
Ascent Fund V ($2m commitment in '08)	No Fee	$1,591,658	0.3%	--	--
Ascent VI ($3m commitment in '15)	No Fee	$2,681,422	0.4%	--	--
Castile Ventures III, L.P. ($3m commitment in '07)	No Fee	$13,978	0.0%	--	--
CVI Credit Value Fund IV A LP ($6m commitment in '17)	No Fee	$5,718,477	1.0%	--	--
Invesco Partnership Fund IV ($3m commitment in '03)	No Fee	$13,621	0.0%	--	--
Invesco International Partnership Fund IV LP ($3m commitment in '03)	No Fee	$0	0.0%	--	--
Invesco US Buyout Partnership Fund IV LP ($3m commitment in '03)	No Fee	$0	0.0%	--	--
Invesco Venture Partnership Fund IV LP ($3m commitment in '03)	No Fee	$0	0.0%	--	--
Invesco Fund VI ($5m commitment in '13)	No Fee	$5,979,079	1.0%	--	--
Kayne Energy Fund VII ($5m commitment in '15)	No Fee	$1,227,483	0.2%	--	--

MWRA Employees' Retirement System

ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 8/31/2020	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
Foundry 2007 ($3m commitment in '07)	No Fee	$199,273	0.0%	--	--
Foundry 2010 ($3m commitment in '10)	No Fee	$3,180,760	0.5%	--	--
Foundry 2010 Annex ($0.4m commitment in '15)	No Fee	$198,885	0.0%	--	--
Pinebridge (AIG) PEP V Asia ($6m commitment in '07)	No Fee	$52,834	0.0%	--	--
Pinebridge (AIG) PEP V Co-Investment ($6m commitment in '07)	No Fee	$55,408	0.0%	--	--
Pinebridge (AIG) PEP V Europe ($6m commitment in '07)	No Fee	$587	0.0%	--	--
Pinebridge (AIG) PEP V Large Market US Buyout ($6m commitment in '07)	No Fee	$69,096	0.0%	--	--
Pinebridge (AIG) PEP V Preferred Participation Fund ($6m commitment in '07)	No Fee	$197,851	0.0%	--	--
Pinebridge (AIG) PEP V Secondary ($6m commitment in '07)	No Fee	$35,772	0.0%	--	--
Pinebridge (AIG) PEP V Small-Mid Market US Buyout ($6m commitment in '07)	No Fee	$58,238	0.0%	--	--
Pinebridge (AIG) PEP V US Venture ($6m commitment in '07)	No Fee	$85,057	0.0%	--	--
Landmark XV ($3m commitment in '13)	No Fee	$1,151,401	0.2%	--	--
JFL Equity Investors IV, L.P. ($6m commitment in '16)	No Fee	$6,917,392	1.2%	--	--
Private Advisors Small Co. Coinvestment Fund, LP ($4m commitment in '17)	No Fee	$3,679,243	0.6%	--	--
Park Square Credit Opportunities III ($3m commitment in ’17)	No Fee	$2,542,643	0.4%	--	--
Ironsides Constitution Opportunities ($3m commitment in '18)	No Fee	$2,127,660	0.4%	--	--
HarbourVest Dover Street X ($9m commitment in '20)	No Fee	$906,202	0.2%	--	--
Hamilton Lane Secondary Fund V LP ($9m commitment in '20)	No Fee	$1,362,686	0.2%	--	--
JFL Equity Investors V, L.P. ($8m commitment in '20)	No Fee	$1,758,767	0.3%	--	--
Investment Management Fee		**$599,468,254**	**100.0%**	**$2,362,532**	**0.39%**

Note:
Estimate fee for privates are ~$997,801 annually, which brings the total expense ratio for privates to ~17 bps. This brings the total estimated expense ratio for MWRA to ~52 bps.

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

Approved: ~~May 2017~~September 2020

MWRA EMPLOYEES' RETIREMENT SYSTEM

INVESTMENT POLICY STATEMENT

I. DEFINITION AND FUNCTION

The Massachusetts Water Resources Authority (MWRA) Employees' Retirement System (the "System" or "Plan") is an employee pension benefit plan established in accordance with Chapter 32 of Massachusetts General Laws ("M.G.L., Chapter 32"). The Plan and Funds are administered by a Retirement Board (the "Board") consisting of five members. The Ex-Officio, two appointed members, and two members elected by the general membership of the retirement system. This defined benefit plan is maintained to provide retirement, disability, and or death benefits, as the case may be, to participants in accordance with Massachusetts General Laws.

The plan and the benefits provided hereunder are funded by investment income and investment gains, contributions from the membership, and annual contributions made by the Massachusetts Water Resources Authority.

The Board members are charged by law with the responsibility for the investment of the assets of the MWRA Employees' Retirement System. To assist the Board in meeting their fiduciary obligation, they are authorized and permitted by the Public Employee Retirement Administration Commission (PERAC) to engage the services of advisors who possess the necessary specialized research facilities and skilled manpower to assure adherence to the "Prudent Expert Rule" under such statutes as may now apply or in the future apply to investments of the Plan.

Policy guidelines will be fixed annually by the Board after consideration of the advice and recommendations of the Investment Advisor. All modifications of policy guidelines shall be in writing and signed by each of the acting Board members.

II. PURPOSE OF THIS STATEMENT OF GOALS AND OBJECTIVES

This statement of Investment Goals and Objectives is to set forth for the explicit purpose of:

1. Determine the Plan's projected financial needs.
2. Express the Board's position with respect to its risk/reward posture.
3. Formulate an appropriate set of goals and objectives for this Plan's assets.
4. Define the strategy to be implemented by the Board in the endeavor of achieving the goals and objectives.

5. Identify a set of guidelines which the Investment Advisor can use in formulating corresponding investment recommendations over the next 10 year time horizon.

6. Establish procedures and a schedule for monitoring the performance of the System in achieving the stated objectives.

III. MISSION STATEMENT

The MWRA Employees' Retirement System is a qualified Defined Benefit plan as defined by the M.G.L., Chapter 32.

The Board of the MWRA Employees' Retirement System has as its primary goal to provide promised benefits to participants and beneficiaries of the system. Plan assets should be equal to or greater than the present value of the projected benefit obligations ("fully funded"). When Plan assets are less than the present value of projected benefit obligations, a schedule will be established and a plan will be in place to meet a fully funded status.

When achieving return objectives required to fully fund the system, the Board is intent on controlling risk. Consistency of returns and risk of loss are primary considerations.

The Board has also determined that the annual performance of plan assets should not vary substantially from returns achieved by other public pension funds with similar goals and objectives.

IV. REGULATORY REQUIREMENTS

Assets of this Fund shall be invested in a manner consistent with the fiduciary standards established under Code of Massachusetts Regulations 840 ("840 CMR"). The Board shall also use as precedent the Employee Retirement Income Security Act (ERISA).

Every Fiduciary Shall:

- Discharge his or her duties for the exclusive purpose of providing benefits to the participants of the Plan and their beneficiaries.

- Act with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims.

- Diversify by investment of the Plan so as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so.

- Operate in accordance with the MWRA Employees' Retirement System's procedures, documents and instruments.

- Maintain compliance with the Code of Ethics and Standards of Conduct applicable to their assigned duties.

No Fiduciary Shall:

- Deal with the assets of the MWRA Employees' Retirement System for his or her own account or his or her own interest.

- Act in any manner or on behalf of any person or organization whose interests are adverse to the interests of the MWRA Employees' Retirement System, its members, or beneficiaries.

- Cause the MWRA Employees' Retirement System to engage in a transaction which in any way involves a sale, exchange, lease, or transfer of assets to or from, or the use of assets by or for the benefit, or the furnishing of goods, services or facilities to or by, or the lending of money or extension of credit to or by any party in one's own interest.

V. TIME HORIZON

Return assumptions will be based on a ten year time horizon with a detailed review and analysis to be made at least annually to monitor allocations and assumptions. Should a manager deviate from proscribed mandate or expected risk and return profile by a consequential degree, that manager may be reevaluated at any time.

VI. LIQUIDITY

Presently contributions exceed plan withdrawals to provide benefits, payouts, and/or plan expenses. Portfolio liquidity will be managed based on the cash flow needs of the System.

VII. RETURN EXPECTATIONS

The Board has determined that investment growth should be maintained in such a manner that the minimum nominal rate of return does not cause a negative real rate of return over a full market cycle.

Return volatility of the aggregate asset base of the Plan will be measured relative to the volatility experienced by a policy benchmark, referenced in Attachment B.

Volatility or risk shall be measured as the annualized standard deviation, utilizing monthly and/or quarterly total rates of return of the aggregate assets of the Plan.

VIII. POLICY ASSET MIX

In order to achieve needed returns within the stated risk tolerance and in order to diversify plan assets so as to minimize the risk associated with the independence on the success of one enterprise, a policy asset mix will be utilized. The policy mix can be found in Attachment B. To accommodate the growth and to avoid excess trading costs the Board has also implemented asset class ranges, which can also be found in Attachment B.

In developing this asset mix no portion of the portfolio has been allocated to cash. However, when employing a multi-manager investment approach, managers may raise cash balances in accordance with their individual investment guidelines.

Surplus cash flows shall be utilized to maintain the asset management structure. Should these cash flows not be sufficient to reallocate the Plan according to the policy, the transfer of assets may occur between managers.

At least annually, the Board will reevaluate the portfolio weightings by asset class and adjustments shall be made accordingly.

IX. MANAGEMENT STRUCTURE

The Board has determined to diversify Plan assets so as to minimize the risk associated with dependence on the success of one enterprise; therefore, the Board has decided to employ a multi-manager team approach to investing plan assets.

Asset managers will be employed to utilize individual expertise within their assigned area of responsibility. Each manager will be governed by individual investment guidelines. Manager guidelines will serve as addenda to the Policy.

The Board, in recognition of the benefits of commingled funds (i.e., the ability to diversify more extensively than in a small, direct investment account and the lower costs which can be associated with these funds) may elect to invest in such funds on a case-by-case basis. The Board recognizes that it cannot give specific policy directives to a commingled fund with pre-established policies, outlined in each fund's prospectus or offering documents; therefore, the Board is relying on the investment consultant to assess and monitor the investment policies of any funds used by the Fund to ascertain whether they are appropriate for the Plan. The Board and its Investment Managers, where applicable, will establish a Side Letter Agreement that sets forth that the manager is aware of the Code of Massachusetts Regulations, Investment Regulations, the applicable provisions of M.G.L., Chapter 32 and that the Manager will comply with the statute and Investment Regulations wherever possible, consistent with the Manager's trust documents, prospectus, implementation documents, etc. creating the commingled fund vehicle.

X. DIVERSIFICATION

Equity Investments

Equity securities shall mean common stocks or equivalents plus issues convertible into common stocks.

Domestic equity holdings consist of equity securities of companies that are listed on U.S. registered exchanges or actively traded in the over-the counter market. The market capitalization of securities should be largely consistent with securities held in appropriate indices.

International equity, including emerging market securities, are listed securities that can be accessed through local markets or American Depository Receipts (ADRs). The manager may hedge currency exposure through the use of derivative instruments. Currency hedging can only be used to eliminate or reduce exposure to a foreign currency, not to introduce or increase exposure to a foreign currency.

Recognizing the benefit of diversification, the Board will consider for every equity mandate: market capitalization, industry diversification, number of issues and rate of turnover.

Additionally, each investment manager will be notified of the exclusions that exist, referenced in section XI, as well as the following securities level restrictions:

a) Not more than 8% at cost or 10% of the total market value of equity investments should be invested in the equity securities of any one company.

b) Not more than 10% of the outstanding equity of one issuer should be held in the portfolio.

Fixed Income

Fixed income shall mean marketable debt securities issued by either (1) the United States Government, (2) sovereign debt of foreign governments, (3) corporations, or (4) domestic banks and other financial institutions and may include mortgage backed securities, asset backed securities, corporate bonds, debentures, and commercial paper.

Recognizing the benefit of diversification, the Board will consider for every fixed income mandate: quality ratings, maturity schedule, industry diversification, number of issues, and rate of turnover.

The duration of the portfolio should be largely consistent with appropriate indices. Unless otherwise agreed to, the duration of the portfolio must be within 25% of the appropriate benchmark.

The minimum quality rating at the time of purchase of any fixed income issue shall be CCC, or the equivalent thereof. Non-rated issues may comprise up to 10% of the portfolio, provided that the manager determines that, if such an issue were rated, it would be allowed under the above limitations and that the non-rated issue is deemed to be below BAA (investment grade).

Compliance with classifications provided by rating agencies (Moody's, S&P, and Fitch) is not sufficient for an issue to be deemed an appropriate investment. The Investment manager is responsible for making an independent analysis of the credit-worthiness of securities and their appropriateness as an investment for this fund.

a) Additionally, each investment manager will be notified of the exclusions that exist, referenced in section XI, as well as the following securities level restrictions:

b) Not more than 5% of the total market value of all investments shall be invested in the debt obligations of any one issuer with the exception of securities issued and guaranteed by the United States Government, or its agencies, which may be held without limitation.

Alternative Implementation Mandates (a.k.a. Global Asset Allocation)

Global Asset Allocation mandates were approved in the portfolio as an alternative implementation of the current asset allocation policy. The goal of these strategies is to outperform either an absolute return or blended multi-asset class market benchmark (i.e. 65% MSCI World Equity / 35% BC Aggregate) over a full market cycle by allocating assets among a defined group of permissible assets classes and markets to gain access to, and an overweight exposure to, those asset classes and markets that the manager has determined are attractive. The benefits of and allocation to these groups of strategies include enhanced diversification through exposure to new asset categories, enhanced return and reduced volatility in down markets.

It is understood that securities, strategies, constraints and investments that are declared ineligible for inclusion within other investment mandates may be included in these portfolios. The otherwise restricted investments may be allowed within this category to allow for positions that on an aggregate basis offer attractive risk-adjusted return benefits to the overall portfolio. The managers should determine that the securities to be purchased and the strategies to be utilized are suitable for this account. Provisions, including liquidity and transparency shall be reviewed and mandates will be deemed appropriate for the Fund's assets on an individual basis. Allocations will be monitored closely to ensure that asset classes' ranges are not violated.

Derivatives are permitted in this portfolio, but are limited in use relative to the Derivatives Policy Statement herein, unless approved in writing by the Board.

Cash, Money Market Investments, and Short Term Investments

Cash and cash equivalent investments shall mean debt obligations with a maturity of twelve months or less at the time of purchase. Investments shall be made only in:

a) Money market funds, Short-term Investment Fund ("STIF funds");

b) Securities rated A1 by Moody or P-1 by Standard & Poor's or better by a recognized credit rating service;

c) Repurchase agreements, provided there is evidence of a pledge of Treasury securities matching the repurchase agreement by reason of non-duplicated depository receipt; or provided the Board takes physical possession of the pledged Treasury securities;

d) Bank deposits which meet the Federal Depository Insurance Corporation's capital ratio requirements so as to provide $250,000 of insurance coverage per participant.

Real Estate

Real estate investments are allowed within the portfolio; real estate shall mean investments which represent beneficial ownership of real estate properties, which can be both equity and debt; Real estate investments shall be:

a) Diversified geographically;

b) Diversified by property type;

c) Diversified by manager so that no investment shall exceed 50% of the total equity real estate portfolio allocation;

d) Diversified by investor so that the Board's investment would not constitute more than 10% of funds invested or that the investments of all Massachusetts contributory retirement systems would not constitute more than 50% of the funds invested, unless otherwise exempted under supplemental regulations through 840 CMR 19.00.

e) ~~In properties whose debt does not represent more than 50% of the appraise value, unless a written request is made to the Board for review and approval;~~

Commented [GS1]: In the event of an opportunistic real estate allocation, the loan to value may exceed this limit.

Private Investments

This policy authorizes commitments to private equity partnerships, private equity limited liability companies and discretionary managers investing in private equity partnerships and private equity limited liability companies. A portfolio of private equity could be invested in, but not limited to:

Venture Capital funds

Leverage Buyout/Growth Equity funds

Mezzanine Financing/ Direct Lending

Secondaries

Distressed Opportunities

Energy Opportunities

Private Debt Investments

Private investments consist of Direct investments, Co-investments, or Fund-of-Funds

Hedge Funds

It is understood that securities, strategies, constraints and investments that are declared ineligible for inclusion within other investment mandates may be included in these portfolios. The otherwise restricted investments may be allowed within this category to allow for positions that on an aggregate basis offer attractive risk-adjusted return benefits to the overall portfolio. The managers should determine that the securities to be purchased and the strategies to be utilized are suitable for this account.

a) The overall goal of the hedge fund investments are to provide a diversified and uncorrelated investment, which over a full market cycle will be competitive with traditional like-strategies, while exhibiting relatively low correlations to equity and fixed income markets.

b) Hedge Funds include a broad array of strategies, which utilize both liquid and illiquid securities. Hedge Funds have the ability to sell securities short as well as purchase long securities. They may also use options, futures, swaps and other derivatives within their portfolio.

c) The returns of hedge funds are much more manager dependent than is the case for traditional mandates. Therefore, hedge fund managers will have the following allocation limits expressed as a percentage of total fund assets: A broadly diversified allocation, ~~-~~with no more than 50% in any specific strategy and no more than 2% in any given fund as per 840 CMR 19.00. In the case of Fund-of-Funds limitations will apply on a look through basis.

Exclusions

The following categories of securities are not permissible for investment in the Plan without the Board's written approval within the specified individual manager guidelines and exempted under supplemental regulations through 840 CMR 19.00.

a. Investments in Sudan, Northern Ireland and South Africa

b. Unregistered or restricted stock

c. Physical Commodities

d. Derivative investments including: forwards, futures options, warrants, hedging, or structured investments which display derivative like characteristics.

e. Margin buying

f. Short selling

g. Swaps, Scores, Primes

h. The portfolio shall comply at all times with applicable laws and regulations.

i. Direct investment in securities of companies that derive greater than 15% of revenue from the sale of tobacco and tobacco related products.

j. Investment in a pooled (commingled or mutual) fund that has greater than 15% of its securities invested in companies that derive more that 15% of their revenue from tobacco and tobacco related products.

k. Direct purchases of real estate, not including real estate held in managed accounts or within investment partnerships

l. Direct ownership of common stock (please refer to section XVII)

XI. RESPONSIBILITIES, COMMUNICATION, AND REPORTING

1. Investment Advisor

An investment advisor or consultant will be employed whose fiduciary responsibilities will be to provide investment advice including: risk/return assumptions on investments, diversification of plan assets so as to minimize the risk within the confinements of the Plan attempting to achieve stated return objectives, and to evaluate, monitor, and report on total portfolio and investment manager returns and compliance to investment policy and guidelines. The investment advisor is responsible for monthly and quarterly reporting.

The advisor shall communicate to the Board:

a. All significant matters pertaining to investment policy and the management of plan assets.

b. Any major changes in manager portfolio structure.

c. Any significant changes on manager ownership, organizational structure, financial condition, or senior personnel staffing.

d. Certified financial statements of the investment managers.

e. Detailed performance measurement and evaluation of total fund as well as manager performance.

f. Should carry error and omissions insurance policy providing a prudent amount of coverage for negligent acts or omissions.

g. Conduct due diligence on each manager.

2. Investment Managers

Managers shall report directly to the Board with council of the Board's Investment Consultant. Every investment manager shall maintain knowledge and shall comply with all applicable laws and rules and regulations, including rules and regulations of any self-regulatory agency of the profession, and the Standards of Conduct of 840 CMR 17.03 and 17.04 and the Code of Ethics of 840 CMR 17.02

Managers shall provide all needed information such as:

a. Major changes in investment outlook.

b. Significant changes in ownership, organizational structure, financial conditions, or senior personnel staffing. Certified financial statements are to be furnished annually.

c. Daily transactions; Monthly valuation and performance reports.

d. The manager is expected to acknowledge in writing its recognition and acceptance of fiduciary responsibility.

e. To have its employees bonded and to carry errors and omissions and/or fiduciary insurance unless otherwise exempted by law or governmental regulation.

3. Actuaries

Actuaries will be utilized to determine the overall health of the Plan. Actuaries will work closely with the Board and the investment advisor to provide needed information including but not limited to determining return assumptions and contribution rates, liquidity needs, future cash flows, and how adverse performance affects contribution rates.

4. Custodian Bank

In order to maximize the Plan's return, no money should be allowed to remain idle. Dividends, interest, proceeds from sales, new contributions and all other monies are to be invested or reinvested promptly.

The custodian bank(s) will be responsible for performing the following functions:

1. Accept daily instructions from designated staff.
2. Notify investment managers of proxies, tenders, rights, fractional shares or other dispositions of holdings.
3. Resolve any problems that designated staff may have relating to the custodial account.
4. Safekeeping of securities.
5. Collection of interest and dividends.
6. Daily cash sweep of idle principal and income cash balances.
7. Processing of all investment manager transactions.
8. Collection of proceeds from maturing securities.
9. Disbursement of all income or principal cash balances as directed.
10. Providing monthly statements by investment account and a consolidated statement of all assets.
11. Working with the investment consultant and the Fund accountant to ensure accuracy in reporting.
12. Provide written statements revealing monthly reconciliation of custody and investment managers' accounting statements.
13. Provide such other duties as are required under the Fund agreements.

5. *Delegation of Responsibilities*

The following chart displays the involvement of each entity as to the decision making process of the System expressed as a presentation of control is:

	Board	Actuary	Inv.Advisor	Manager	Custodian
Asset Allocation Investment Policy	X	X	X		
Formation of Investment Policy	X		X		
Manager Guidelines	X		X	X	
Manager Selection	X		X		
Performance Evaluation	X		X		
Security Selection	X			X	
Execution of Trades	X			X	X
Collection of Dividends & Interest				X	X
Cash Sweeps				X	X
Recapture Programs				X	
Security Lending					X
Proxy Voting	X			X	
Trading Verification	X			X	X

6. *Legal Counsel*

Legal counsel will be retained by the Trustees to review contracts and to provide overall advice as to fiduciary compliance to regulatory authorities.

XII. STANDARDS OF PERFORMANCE

Standards utilized in evaluating investment performance.

1. The extent to which the total rate of return for the Plan's assets over the next 10 year period equals or exceeds the targeted actuarial rate of return.

2. The extent to which the total rate of return for the Plan's assets over the next 10 year period exceeds the policy benchmark (Attachment B).

3. Comparison of the funds return to a compatible universe of funds allocated in similar weights and with the same goals and objectives.

4. The extent to which return divided by standard deviation (risk adjusted return) exceeds that of the policy benchmark and a comparable universe of funds.

5. Investment performance of various asset classes of securities, excluding private equity, will be compared, on a time weighted basis, with that of unmanaged market indices as well as a sample universe of funds as follows:

   a. Total equity performance will be compared with the Russell 3000 Index and with a sample universe of equity funds. Large Cap mandates will also be reviewed relative to the S&P 500 Index and any other style index (Russell 1000 Value or Growth). Likewise for Small Cap mandates, where the performance benchmark shall be the Russell 2000 and the applicable Value or Growth Benchmark.

   b. Fixed income performance will be compared with the Barclay's Capital Aggregate Bond Index as well as with a sample universe of fixed income funds.

   c. International and emerging market equity performance will be compared with the MS EAFE Index for developed and the MS EME Index for emerging equity mandates, as well as a sample universe of international and emerging equity funds.

   d. Global Asset Allocation managers and Hedge Fund managers will be evaluated based upon an agreed upon benchmark. Different mandates will require different stated benchmarks as well as a sample universe of funds.

   e. Real Estate managers will be evaluated relative to the NCREIF index.

f. Private Equity managers will be evaluated with an Internal Rate of Return (IRR) calculation.

XIII. INVESTMENT TRANSACTIONS

All transactions are to be governed by negotiation for execution on a "best execution basis." The lowest commission cost may not represent the best execution. Investment managers shall be responsible for determining best execution of trades within their assigned portfolio.

XIV. PROXY VOTING

Proxy voting shall be implemented by the manager in compliance to policies established by the manager approved by the Board. The manager is to report on all votes that are cast and the reason behind their decisions on a semi-annual basis. See Attachment “A”.

XV. IMPLEMENTATION

All new moneys invested for the Board by investment managers after the adoption of this investment policy statement shall conform to this statement. To the extent that the Board shall deliver to an investment manager, in cash or kind, or fund assets here to fore invested for them by other investment managers, within 60 days after the delivery of said prior assets by the Board, the entire portfolio managed by the manager shall conform to in all aspects to guidelines established to the investment guidelines established for said manager. Specific manager guidelines shall serve as addenda to the investment policy.

XVI. RECIEPT OF SECURITIES IN-KIND

The Board acknowledges that from time to time, investment managers may distribute shares of securities in-kind, in lieu of cash. It is the Policy of the Board to be fully invested with specialist investment managers and not hold individual securities as part of the investment portfolio.

In the event that an in-kind distribution occurs, the Board will meet to discuss and vote on the sale of shares as soon as feasible upon receipt. The Board Chairman, in consultation with the Board’s investment consultant, custodian bank, legal counsel, and Executive Director, shall be authorized to take all necessary actions to execute the sale of stock or securities. Due to the unpredictable nature of these distributions, meetings can take place in person, by phone or electronically, as needed. In the event a meeting cannot take place or the Board Chairman and/or Vice-Chairman is unavailable, the Board grants the Executive Director the ability to sell the shares immediately.

Following such an event, the Chairman, Vice-Chairman or Director shall report at the next scheduled public meeting of the Board the actions taken to effectuate the sale of stock or securities.

Manager Guidelines Act as Addendum to Policy

Approved: ~~May 2017~~September 2020

Adopted this 2~~5~~4th day of ~~May~~September, ~~2017~~2020

Board Members

Name______________________________

Name______________________________

Name______________________________

Name______________________________

Name______________________________

Consultant:

Name______________________________

Approved: ~~May 2017~~September 2020

Attachment "A"
Proxy Voting

The MWRA Employees' Retirement Board has discussed their position as it relates to shareholder proposals in four specific categories: Board Independence, Corporate Governance, Employee Related Proposals, and Executive Compensation. Notwithstanding The fact that The MWRA Employees' Retirement Board has delegated this responsibility to your company as our investment advisor, The Board desires to clarify their position as a matter for the public record.

Board Independence- In an effort to ensure the Board of Directors will perform their oversight function as impartially as possible, the MWRA Employees' Retirement Board favors either a majority of independent directors, an independent board chairman, and/or independent members on [key] committees.

Executive Compensation- It is the position of the MWRA Employees' Retirement Board that Executive Compensation should be tied closely to the performance of the company. **The MWRA Employees' Retirement Board does not favor the practice of compensating board members with pension benefits**. As a Board, we believe excessive compensation for senior executive's impacts productivity and employee morale. We advocate performance based stock options to align compensation interests to company performance, and we endorse the creation of long-term shareholder value through human capital- the skill and commitment of the company workforce.

Corporate Governance- while this category holds a multitude of issues, the MWRA Employees' Retirement Board believes the Corporate Governance of any company should be in the spirit of the previous two categories, but fundamentally in the long- term interests of shareholder value. The issues within this category include:

- Increasing Authorized Common Stock
- Blank-Check Preferred Stock
- Reincorporation
- Poison Pills
- Insider Trading
- Board Size and Composition
- Supermajority Voting Requirements
- Dual Class Voting
- Confidential Voting and Independent Tabulation of the Vote
- Cumulative Voting
- Shareholder's Rights to Call Special Meeting
- Approving Other Business
- Attendance at Meetings
- Stock Options For Bard Members Who are not Employees
- Excessive number of Board Memberships

Employee Related Proposals- The MWRA Employees' Retirement Board supports proposals that align the interest of employees and shareholders. Two key areas are:
Employee Stock Purchase Plans – allowing employees to purchase company stock at a discount supports employee ownership and links the interests of employees of the company with shareholders, benefiting all shareholders in the long run.
High-Performance Workplaces- voting fiduciaries should generally support "high-performance workplace practices" at companies; some such practices are outlined in the Department of Labor's 1994 report, "Road to High-Performance Workplaces". Voting fiduciaries should review these proposals and ensure that they do not unduly interfere with the company's operation.

Approved: ~~May 2017~~September 2020

Attachment "B"
Asset Allocation

Asset Class	% Allocated	Corresponding Index
Domestic Stocks	~~21~~26	Russell 3000
Large Cap	*~~15~~20*	*S&P 500*
Small Cap	*6*	*Russell 2000*
Domestic Bonds*	~~22~~27	Barclay's Capital Aggregate
International Stocks	~~19~~21	MSCI ACWI
Developed International	*15*	*MSCI EAFE*
Emerging Equity	*~~4~~6*	*MSCI EME*
Real Estate	~~8~~10	NCREIF Property Index
Private Equity	10	~~NASDAQ Index~~CA All US Private Equity Index
Hedge Funds/Absolute Return	~~5~~6	HFRI Hedge Fund of Funds
Global Asset Allocation	~~15~~0	TBD, based on hired manager (See Policy Index)

**Core bonds, credit, high yield, TIPS and non-U.S. bond holdings*

Asset Class	Minimum Exposure	Maximum Exposure
Domestic Stocks	10%	~~30~~40%
Domestic Bonds	15%	40%
International Stocks	10%	~~25~~30%
Real Estate (Equity)	0%	1~~0~~5%
Private Equity	0%	1~~2~~5%
Hedge Funds/Absolute Return	0%	1~~2~~0%
Global Asset Allocation	~~5~~0%	~~25~~10%
Cash	0%	10%

Policy benchmark (Effective ~~June 1~~June 1, 20~~17~~20): 10% ~~NASDAQ Index~~Cambridge All US Private Equity (as proxy for private equity allocation), ~~8~~10% NCREIF Property Index, 10% Morgan Stanley EAFE, 5% MSCI World ex. US Small Cap Index, ~~4~~6%

Morgan Stanley Emerging Markets, ~~15~~20% S&P 500, 6% Russell 2000, ~~8~~12% Barclay's Capital Aggregate Bond Index, ~~6~~5% Barclay's Capital US TIPS Index, ~~8~~10% Bloomberg US Universal Bond Index, ~~5~~6% HFRI Fund of Funds (as a proxy for Hedge Funds); ~~5% Blended Benchmark (65% ACWI/35% BC Agg); 5% Blended Benchmark (60% MSCI ACWI/40% Citi WGBI); 5% PIMCO Benchmark (40% BarCap Aggregate/30% TIPS/10% S&P 500/10% BarCap HY/10% JPM EMBI)~~

Approved: September 2020

MWRA EMPLOYEES' RETIREMENT SYSTEM

INVESTMENT POLICY STATEMENT

I. DEFINITION AND FUNCTION

The Massachusetts Water Resources Authority (MWRA) Employees' Retirement System (the "System" or "Plan") is an employee pension benefit plan established in accordance with Chapter 32 of Massachusetts General Laws ("M.G.L., Chapter 32"). The Plan and Funds are administered by a Retirement Board (the "Board") consisting of five members. The Ex-Officio, two appointed members, and two members elected by the general membership of the retirement system. This defined benefit plan is maintained to provide retirement, disability, and or death benefits, as the case may be, to participants in accordance with Massachusetts General Laws.

The plan and the benefits provided hereunder are funded by investment income and investment gains, contributions from the membership, and annual contributions made by the Massachusetts Water Resources Authority.

The Board members are charged by law with the responsibility for the investment of the assets of the MWRA Employees' Retirement System. To assist the Board in meeting their fiduciary obligation, they are authorized and permitted by the Public Employee Retirement Administration Commission (PERAC) to engage the services of advisors who possess the necessary specialized research facilities and skilled manpower to assure adherence to the "Prudent Expert Rule" under such statutes as may now apply or in the future apply to investments of the Plan.

Policy guidelines will be fixed annually by the Board after consideration of the advice and recommendations of the Investment Advisor. All modifications of policy guidelines shall be in writing and signed by each of the acting Board members.

II. PURPOSE OF THIS STATEMENT OF GOALS AND OBJECTIVES

This statement of Investment Goals and Objectives is to set forth for the explicit purpose of:

1. Determine the Plan's projected financial needs.

2. Express the Board's position with respect to its risk/reward posture.

3. Formulate an appropriate set of goals and objectives for this Plan's assets.

4. Define the strategy to be implemented by the Board in the endeavor of achieving the goals and objectives.

5. Identify a set of guidelines which the Investment Advisor can use in formulating corresponding investment recommendations over the next 10 year time horizon.

6. Establish procedures and a schedule for monitoring the performance of the System in achieving the stated objectives.

III. MISSION STATEMENT

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The Board of the MWRA Employees' Retirement System has as its primary goal to provide promised benefits to participants and beneficiaries of the system. Plan assets should be equal to or greater than the present value of the projected benefit obligations ("fully funded"). When Plan assets are less than the present value of projected benefit obligations, a schedule will be established, and a plan will be in place to meet a fully funded status.

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- Act in any manner or on behalf of any person or organization whose interests are adverse to the interests of the MWRA Employees' Retirement System, its members, or beneficiaries.

- Cause the MWRA Employees' Retirement System to engage in a transaction which in any way involves a sale, exchange, lease, or transfer of assets to or from, or the use of assets by or for the benefit, or the furnishing of goods, services or facilities to or by, or the lending of money or extension of credit to or by any party in one's own interest.

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In order to achieve needed returns within the stated risk tolerance and in order to diversify plan assets so as to minimize the risk associated with the independence on the success of one enterprise, a policy asset mix will be utilized. The policy mix can be found in Attachment B. To accommodate the growth and to avoid excess trading costs the Board has also implemented asset class ranges, which can also be found in Attachment B.

In developing this asset mix no portion of the portfolio has been allocated to cash. However, when employing a multi-manager investment approach, managers may raise cash balances in accordance with their individual investment guidelines.

Surplus cash flows shall be utilized to maintain the asset management structure. Should these cash flows not be sufficient to reallocate the Plan according to the policy, the transfer of assets may occur between managers.

At least annually, the Board will reevaluate the portfolio weightings by asset class and adjustments shall be made accordingly.

IX. MANAGEMENT STRUCTURE

The Board has determined to diversify Plan assets so as to minimize the risk associated with dependence on the success of one enterprise; therefore, the Board has decided to employ a multi-manager team approach to investing plan assets.

Asset managers will be employed to utilize individual expertise within their assigned area of responsibility. Each manager will be governed by individual investment guidelines. Manager guidelines will serve as addenda to the Policy.

The Board, in recognition of the benefits of commingled funds (i.e., the ability to diversify more extensively than in a small, direct investment account and the lower costs which can be associated with these funds) may elect to invest in such funds on a case-by-case basis. The Board recognizes that it cannot give specific policy directives to a commingled fund with pre-established policies, outlined in each fund's prospectus or offering documents; therefore, the Board is relying on the investment consultant to assess and monitor the investment policies of any funds used by the Fund to ascertain whether they are appropriate for the Plan. The Board and its Investment Managers, where applicable, will establish a Side Letter Agreement that sets forth that the manager is aware of the Code of Massachusetts Regulations, Investment Regulations, the applicable provisions of M.G.L., Chapter 32 and that the Manager will comply with the statute and Investment Regulations wherever possible, consistent with the Manager's trust documents, prospectus, implementation documents, etc. creating the commingled fund vehicle.

X. DIVERSIFICATION

Equity Investments

Equity securities shall mean common stocks or equivalents plus issues convertible into common stocks.

Domestic equity holdings consist of equity securities of companies that are listed on U.S. registered exchanges or actively traded in the over-the counter market. The market capitalization of securities should be largely consistent with securities held in appropriate indices.

International equity, including emerging market securities, are listed securities that can be accessed through local markets or American Depository Receipts (ADRs). The manager may hedge currency exposure through the use of derivative instruments. Currency hedging can only be used to eliminate or reduce exposure to a foreign currency, not to introduce or increase exposure to a foreign currency.

Recognizing the benefit of diversification, the Board will consider for every equity mandate: market capitalization, industry diversification, number of issues and rate of turnover.

Additionally, each investment manager will be notified of the exclusions that exist, referenced in section XI, as well as the following securities level restrictions:

a) Not more than 8% at cost or 10% of the total market value of equity investments should be invested in the equity securities of any one company.

b) Not more than 10% of the outstanding equity of one issuer should be held in the portfolio.

Fixed Income

Fixed income shall mean marketable debt securities issued by either (1) the United States Government, (2) sovereign debt of foreign governments, (3) corporations, or (4) domestic banks and other financial institutions and may include mortgage backed securities, asset backed securities, corporate bonds, debentures, and commercial paper.

Recognizing the benefit of diversification, the Board will consider for every fixed income mandate: quality ratings, maturity schedule, industry diversification, number of issues, and rate of turnover.

The duration of the portfolio should be largely consistent with appropriate indices. Unless otherwise agreed to, the duration of the portfolio must be within 25% of the appropriate benchmark.

The minimum quality rating at the time of purchase of any fixed income issue shall be CCC, or the equivalent thereof. Non-rated issues may comprise up to 10% of the portfolio, provided that the manager determines that, if such an issue were rated, it would be allowed under the above limitations and that the non-rated issue is deemed to be below BAA (investment grade).

Compliance with classifications provided by rating agencies (Moody's, S&P, and Fitch) is not sufficient for an issue to be deemed an appropriate investment. The Investment manager is responsible for making an independent analysis of the credit-worthiness of securities and their appropriateness as an investment for this fund.

a) Additionally, each investment manager will be notified of the exclusions that exist, referenced in section XI, as well as the following securities level restrictions:

b) Not more than 5% of the total market value of all investments shall be invested in the debt obligations of any one issuer with the exception of securities issued and guaranteed by the United States Government, or its agencies, which may be held without limitation.

Alternative Implementation Mandates (a.k.a. Global Asset Allocation)

Global Asset Allocation mandates were approved in the portfolio as an alternative implementation of the current asset allocation policy. The goal of these strategies is to outperform either an absolute return or blended multi-asset class market benchmark (i.e. 65% MSCI World Equity / 35% BC Aggregate) over a full market cycle by allocating assets among a defined group of permissible assets classes and markets to gain access to, and an overweight exposure to, those asset classes and markets that the manager has determined are attractive. The benefits of and allocation to these groups of strategies include enhanced diversification through exposure to new asset categories, enhanced return and reduced volatility in down markets.

It is understood that securities, strategies, constraints and investments that are declared ineligible for inclusion within other investment mandates may be included in these portfolios. The otherwise restricted investments may be allowed within this category to allow for positions that on an aggregate basis offer attractive risk-adjusted return benefits to the overall portfolio. The managers should determine that the securities to be purchased and the strategies to be utilized are suitable for this account. Provisions, including liquidity and transparency shall be reviewed and mandates will be deemed appropriate for the Fund's assets on an individual basis. Allocations will be monitored closely to ensure that asset classes' ranges are not violated.

Derivatives are permitted in this portfolio but are limited in use relative to the Derivatives Policy Statement herein, unless approved in writing by the Board.

Cash, Money Market Investments, and Short Term Investments

Cash and cash equivalent investments shall mean debt obligations with a maturity of twelve months or less at the time of purchase. Investments shall be made only in:

a) Money market funds, Short-term Investment Fund ("STIF funds");

b) Securities rated A1 by Moody or P-1 by Standard & Poor's or better by a recognized credit rating service;

c) Repurchase agreements, provided there is evidence of a pledge of Treasury securities matching the repurchase agreement by reason of non-duplicated depository receipt; or provided the Board takes physical possession of the pledged Treasury securities;

d) Bank deposits which meet the Federal Depository Insurance Corporation's capital ratio requirements so as to provide $250,000 of insurance coverage per participant.

Real Estate

Real estate investments are allowed within the portfolio; real estate shall mean investments which represent beneficial ownership of real estate properties, which can be both equity and debt; Real estate investments shall be:

a) Diversified geographically;

b) Diversified by property type;

c) Diversified by manager so that no investment shall exceed 50% of the total equity real estate portfolio allocation;

d) Diversified by investor so that the Board's investment would not constitute more than 10% of funds invested or that the investments of all Massachusetts contributory retirement systems would not constitute more than 50% of the funds invested, unless otherwise exempted under supplemental regulations through 840 CMR 19.00.

Private Investments

This policy authorizes commitments to private equity partnerships, private equity limited liability companies and discretionary managers investing in private equity partnerships and private equity limited liability companies. A portfolio of private equity could be invested in, but not limited to:

Venture Capital funds

Leverage Buyout/Growth Equity funds

Mezzanine Financing/ Direct Lending

Secondaries

Distressed Opportunities

Energy Opportunities

Private Debt Investments

Private investments consist of Direct investments, Co-investments, or Fund-of-Funds

Hedge Funds

It is understood that securities, strategies, constraints and investments that are declared ineligible for inclusion within other investment mandates may be included in these portfolios. The otherwise restricted investments may be allowed within this category to allow for positions that on an aggregate basis offer attractive risk-adjusted return benefits to the overall portfolio. The managers should determine that the securities to be purchased and the strategies to be utilized are suitable for this account.

a) The overall goal of the hedge fund investments are to provide a diversified and uncorrelated investment, which over a full market cycle will be competitive with traditional like-strategies, while exhibiting relatively low correlations to equity and fixed income markets.

b) Hedge Funds include a broad array of strategies, which utilize both liquid and illiquid securities. Hedge Funds have the ability to sell securities short as well as purchase long securities. They may also use options, futures, swaps and other derivatives within their portfolio.

c) The returns of hedge funds are much more manager dependent than is the case for traditional mandates. Therefore, hedge fund managers will have the following allocation limits expressed as a percentage of total fund assets: A broadly diversified allocation, with no more than 50% in any specific strategy and no more than 2% in any given fund as per 840 CMR 19.00. In the case of Fund-of-Funds limitations will apply on a look through basis.

Exclusions

The following categories of securities are not permissible for investment in the Plan without the Board's written approval within the specified individual manager guidelines and exempted under supplemental regulations through 840 CMR 19.00.

a. Investments in Sudan, Northern Ireland and South Africa

b. Unregistered or restricted stock

c. Physical Commodities

d. Derivative investments including: forwards, futures options, warrants, hedging, or structured investments which display derivative like characteristics.

e. Margin buying

f. Short selling

g. Swaps, Scores, Primes

h. The portfolio shall comply at all times with applicable laws and regulations.

i. Direct investment in securities of companies that derive greater than 15% of revenue from the sale of tobacco and tobacco related products.

j. Investment in a pooled (commingled or mutual) fund that has greater than 15% of its securities invested in companies that derive more that 15% of their revenue from tobacco and tobacco related products.

k. Direct purchases of real estate, not including real estate held in managed accounts or within investment partnerships

l. Direct ownership of common stock (please refer to section XVII)

XI. RESPONSIBILITIES, COMMUNICATION, AND REPORTING

1. Investment Advisor

An investment advisor or consultant will be employed whose fiduciary responsibilities will be to provide investment advice including: risk/return assumptions on investments, diversification of plan assets so as to minimize the risk within the confinements of the Plan attempting to achieve stated return objectives, and to evaluate, monitor, and report on total portfolio and investment manager returns and compliance to investment policy and guidelines. The investment advisor is responsible for monthly and quarterly reporting.

The advisor shall communicate to the Board:

a. All significant matters pertaining to investment policy and the management of plan assets.

b. Any major changes in manager portfolio structure.

c. Any significant changes on manager ownership, organizational structure, financial condition, or senior personnel staffing.

d. Certified financial statements of the investment managers.

e. Detailed performance measurement and evaluation of total fund as well as manager performance.

f. Should carry error and omissions insurance policy providing a prudent amount of coverage for negligent acts or omissions.

g. Conduct due diligence on each manager.

2. Investment Managers

Managers shall report directly to the Board with council of the Board's Investment Consultant. Every investment manager shall maintain knowledge and shall comply with all applicable laws and rules and regulations, including rules and regulations of any self-regulatory agency of the profession, and the Standards of Conduct of 840 CMR 17.03 and 17.04 and the Code of Ethics of 840 CMR 17.02

Managers shall provide all needed information such as:

a. Major changes in investment outlook.

b. Significant changes in ownership, organizational structure, financial conditions, or senior personnel staffing. Certified financial statements are to be furnished annually.

c. Daily transactions; Monthly valuation and performance reports.

d. The manager is expected to acknowledge in writing its recognition and acceptance of fiduciary responsibility.

e. To have its employees bonded and to carry errors and omissions and/or fiduciary insurance unless otherwise exempted by law or governmental regulation.

3. Actuaries

Actuaries will be utilized to determine the overall health of the Plan. Actuaries will work closely with the Board and the investment advisor to provide needed information including but not limited to determining return assumptions and contribution rates, liquidity needs, future cash flows, and how adverse performance affects contribution rates.

4. Custodian Bank

In order to maximize the Plan's return, no money should be allowed to remain idle. Dividends, interest, proceeds from sales, new contributions and all other monies are to be invested or reinvested promptly.

The custodian bank(s) will be responsible for performing the following functions:

1. Accept daily instructions from designated staff.
2. Notify investment managers of proxies, tenders, rights, fractional shares or other dispositions of holdings.
3. Resolve any problems that designated staff may have relating to the custodial account.
4. Safekeeping of securities.
5. Collection of interest and dividends.
6. Daily cash sweep of idle principal and income cash balances.
7. Processing of all investment manager transactions.
8. Collection of proceeds from maturing securities.
9. Disbursement of all income or principal cash balances as directed.
10. Providing monthly statements by investment account and a consolidated statement of all assets.
11. Working with the investment consultant and the Fund accountant to ensure accuracy in reporting.
12. Provide written statements revealing monthly reconciliation of custody and investment managers' accounting statements.
13. Provide such other duties as are required under the Fund agreements.

5. Delegation of Responsibilities

The following chart displays the involvement of each entity as to the decision-making process of the System expressed as a presentation of control is:

	Board	**Actuary**	**Inv.Advisor**	**Manager**	**Custodian**
Asset Allocation Investment Policy	X	X	X		
Formation of Investment Policy	X		X		
Manager Guidelines	X		X	X	
Manager Selection	X		X		
Performance Evaluation	X		X		
Security Selection	X			X	
Execution of Trades	X			X	X
Collection of Dividends & Interest				X	X
Cash Sweeps				X	X
Recapture Programs				X	
Security Lending					X
Proxy Voting	X			X	
Trading Verification	X			X	X

6. Legal Counsel

Legal counsel will be retained by the Trustees to review contracts and to provide overall advice as to fiduciary compliance to regulatory authorities.

XII. STANDARDS OF PERFORMANCE

Standards utilized in evaluating investment performance.

1. The extent to which the total rate of return for the Plan's assets over the next 10 year period equals or exceeds the targeted actuarial rate of return.

2. The extent to which the total rate of return for the Plan's assets over the next 10 year period exceeds the policy benchmark (Attachment B).

3. Comparison of the funds return to a compatible universe of funds allocated in similar weights and with the same goals and objectives.

4. The extent to which return divided by standard deviation (risk adjusted return) exceeds that of the policy benchmark and a comparable universe of funds.

5. Investment performance of various asset classes of securities, excluding private equity, will be compared, on a time weighted basis, with that of unmanaged market indices as well as a sample universe of funds as follows:

a. Total equity performance will be compared with the Russell 3000 Index and with a sample universe of equity funds. Large Cap mandates will also be reviewed relative to the S&P 500 Index and any other style index (Russell 1000 Value or Growth). Likewise, for Small Cap mandates, where the performance benchmark shall be the Russell 2000 and the applicable Value or Growth Benchmark.

b. Fixed income performance will be compared with the Barclay's Capital Aggregate Bond Index as well as with a sample universe of fixed income funds.

c. International and emerging market equity performance will be compared with the MS EAFE Index for developed and the MS EME Index for emerging equity mandates, as well as a sample universe of international and emerging equity funds.

d. Global Asset Allocation managers and Hedge Fund managers will be evaluated based upon an agreed upon benchmark. Different mandates will require different stated benchmarks as well as a sample universe of funds.

e. Real Estate managers will be evaluated relative to the NCREIF index.

f. Private Equity managers will be evaluated with an Internal Rate of Return (IRR) calculation.

XIII. INVESTMENT TRANSACTIONS

All transactions are to be governed by negotiation for execution on a "best execution basis." The lowest commission cost may not represent the best execution. Investment managers shall be responsible for determining best execution of trades within their assigned portfolio.

XIV. PROXY VOTING

Proxy voting shall be implemented by the manager in compliance to policies established by the manager approved by the Board. The manager is to report on all votes that are cast and the reason behind their decisions on a semi-annual basis. See Attachment “A”.

XV. IMPLEMENTATION

All new moneys invested for the Board by investment managers after the adoption of this investment policy statement shall conform to this statement. To the extent that the Board shall deliver to an investment manager, in cash or kind, or fund assets here to fore invested for them by other investment managers, within 60 days after the delivery of said prior assets by the Board, the entire portfolio managed by the manager shall conform to in all aspects to guidelines established to the investment guidelines established for said manager. Specific manager guidelines shall serve as addenda to the investment policy.

XVI. RECIEPT OF SECURITIES IN-KIND

The Board acknowledges that from time to time, investment managers may distribute shares of securities in-kind, in lieu of cash. It is the Policy of the Board to be fully invested with specialist investment managers and not hold individual securities as part of the investment portfolio.

In the event that an in-kind distribution occurs, the Board will meet to discuss and vote on the sale of shares as soon as feasible upon receipt. The Board Chairman, in consultation with the Board’s investment consultant, custodian bank, legal counsel, and Executive Director, shall be authorized to take all necessary actions to execute the sale of stock or securities. Due to the unpredictable nature of these distributions, meetings can take place in person, by phone or electronically, as needed. In the event a meeting cannot take place or the Board Chairman and/or Vice-Chairman is unavailable, the Board grants the Executive Director the ability to sell the shares immediately.

Following such an event, the Chairman, Vice-Chairman or Director shall report at the next scheduled public meeting of the Board the actions taken to effectuate the sale of stock or securities.

Manager Guidelines Act as Addendum to Policy

Adopted this 24th day of September 2020

Board Members

Name______________________________

Name______________________________

Name______________________________

Name______________________________

Name______________________________

Consultant:

Name______________________________

Attachment "A"
Proxy Voting

The MWRA Employees' Retirement Board has discussed their position as it relates to shareholder proposals in four specific categories: Board Independence, Corporate Governance, Employee Related Proposals, and Executive Compensation. Notwithstanding The fact that The MWRA Employees' Retirement Board has delegated this responsibility to your company as our investment advisor, The Board desires to clarify their position as a matter for the public record.

Board Independence- In an effort to ensure the Board of Directors will perform their oversight function as impartially as possible, the MWRA Employees' Retirement Board favors either a majority of independent directors, an independent board chairman, and/or independent members on [key] committees.

Executive Compensation- It is the position of the MWRA Employees' Retirement Board that Executive Compensation should be tied closely to the performance of the company. **The MWRA Employees' Retirement Board does not favor the practice of compensating board members with pension benefits**. As a Board, we believe excessive compensation for senior executive's impacts productivity and employee morale. We advocate performance based stock options to align compensation interests to company performance, and we endorse the creation of long-term shareholder value through human capital- the skill and commitment of the company workforce.

Corporate Governance- while this category holds a multitude of issues, the MWRA Employees' Retirement Board believes the Corporate Governance of any company should be in the spirit of the previous two categories, but fundamentally in the long- term interests of shareholder value. The issues within this category include:

- Increasing Authorized Common Stock
- Blank-Check Preferred Stock
- Reincorporation
- Poison Pills
- Insider Trading
- Board Size and Composition
- Supermajority Voting Requirements
- Dual Class Voting
- Confidential Voting and Independent Tabulation of the Vote
- Cumulative Voting
- Shareholder's Rights to Call Special Meeting
- Approving Other Business
- Attendance at Meetings
- Stock Options For Bard Members Who are not Employees
- Excessive number of Board Memberships

Employee Related Proposals- The MWRA Employees' Retirement Board supports proposals that align the interest of employees and shareholders. Two key areas are:
Employee Stock Purchase Plans – allowing employees to purchase company stock at a discount supports employee ownership and links the interests of employees of the company with shareholders, benefiting all shareholders in the long run.
High-Performance Workplaces- voting fiduciaries should generally support "high-performance workplace practices" at companies; some such practices are outlined in the Department of Labor's 1994 report, "Road to High-Performance Workplaces". Voting fiduciaries should review these proposals and ensure that they do not unduly interfere with the company's operation.

Attachment "B"
Asset Allocation

Asset Class	% Allocated	Corresponding Index
Domestic Stocks	26	Russell 3000
Large Cap	*20*	*S&P 500*
Small Cap	*6*	*Russell 2000*
Domestic Bonds*	27	Barclay's Capital Aggregate
International Stocks	21	MSCI ACWI
Developed International	*15*	*MSCI EAFE*
Emerging Equity	*6*	*MSCI EME*
Real Estate	10	NCREIF Property Index
Private Equity	10	CA All US Private Equity Index
Hedge Funds/Absolute Return	6	HFRI Hedge Fund of Funds
Global Asset Allocation	0	TBD, based on hired manager (See Policy Index)

**Core bonds, credit, high yield, TIPS and non-U.S. bond holdings*

Asset Class	Minimum Exposure	Maximum Exposure
Domestic Stocks	10%	40%
Domestic Bonds	15%	40%
International Stocks	10%	30%
Real Estate (Equity)	0%	15%
Private Equity	0%	15%
Hedge Funds/Absolute Return	0%	10%
Global Asset Allocation	0%	10%
Cash	0%	10%

Policy benchmark (Effective June 1, 2020): 10% Cambridge All US Private Equity (as proxy for private equity allocation), 10% NCREIF Property Index, 10% Morgan Stanley EAFE, 5% MSCI World ex. US Small Cap Index, 6% Morgan Stanley Emerging Markets, 20% S&P 500, 6% Russell 2000, 12% Barclay's Capital Aggregate Bond Index, 5% Barclay's Capital US TIPS Index, 10% Bloomberg US Universal Bond Index, 6% HFRI Fund of Funds (as a proxy for Hedge Funds);

McManus, Julie

From: Russo, Carolyn
Sent: Wednesday, September 09, 2020 2:59 PM
To: McManus, Julie
Subject: FW: CarVal Communication

For September meeting, please see item below.

From: Grzejka, Sebastian
Sent: Wednesday, September 09, 2020 2:44 PM
To: Russo, Carolyn
Subject: [EXTERNAL] CarVal Communication

[EXTERNAL]: This is an external email. Do not click on links or attachments if sender is unknown or if the email is unexpected.

Hi Carolyn,

One last item for today and for the next meeting. You should have received a communication from CarVal today, containing a proposal/request related to CarVal Credit Value Fund ("CVF IV").

CVF IV investment period: CarVal is seeking LPAC approval to extend the investment period of CVF IV by one year

- Currently, the CVF IV investment period is set to expire on May 1, 2021; CarVal would like to extend this to May 1, 2022
- The Firm believes that extending the investment period is logical and reasonable due to the amount of current and developing deal flow, stemming from economic impact of the COVID-19 pandemic
- This extension will not extend the term of CVF IV, which is set at, and will remain at six years
- The Firm projects that with an additional year to invest CVF IV, it will be able to invest approximately $800 million of recycled proceeds

Based on the details that have been shared with NEPC so far, we believe that the request is reasonable as this allows the fund to invest in opportunities stemming from the Pandemic, without extending the terms of the fund. We will be prepared to discuss with the Board.
Please let us know if you have any questions.

Sebastian

Sebastian Grzejka, CAIA
Principal, Senior Consultant

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NEPC Endowments/Foundations

Follow us on Twitter! @NEPC_EandF

McManus, Julie

From: Russo, Carolyn
Sent: Friday, September 11, 2020 3:10 PM
To: McManus, Julie
Subject: FW: Coho Partners - Updated Schedule C
Attachments: 2020.09.08 DRAFT Coho-MWRA ERS Schedule C_Redline.doc; 2020.09.08 Coho-MWRA ERS Schedule C.pdf

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From: Wayne LeSage
Sent: Friday, September 11, 2020 3:02 PM
To: Russo, Carolyn
Cc: Elisa Moneymaker ; Grzejka, Sebastian
Subject: [EXTERNAL] Coho Partners - Updated Schedule C

[EXTERNAL]: This is an external email. Do not click on links or attachments if sender is unknown or if the email is unexpected.

Hi Carolyn,

I hope you are doing well and the MWRA team is staying healthy.

I believe Sebastian may have already communicated to you that we would like to make a small change to our investment guidelines (Schedule C) for the MWRA portfolio. Attached are a redlined version (in Word format) and a final copy (in PDF format) for your review. In summary, we believe the maximum individual security weight of 6% is a sufficient diversification guideline per our process, but we would like to eliminate the "5% at cost" phrase as this is a soft guideline for us - but not a hard and fast rule. Please let us know if the Board has any additional questions. We are happy to talk through this in more detail if needed.

Enjoy your weekend,
Wayne

WAYNE G. LeSAGE, JR., CFA
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Schedule C

Investment Objectives, Guidelines & Restrictions

Mandate: U.S. Large Cap Value Equity

Benchmarks: Russell 1000 Value Index and S&P 500 Index

The primary objective for the Portfolio is to outperform the Russell 1000 Value Index and S&P 500 Index over a full market cycle net of fees.

Guidelines & Restrictions

1. The Portfolio may comprise listed stocks trading on U.S. exchanges and cash equivalents.
2. American Depository Receipts (ADRs) are acceptable investments up to 15% of the Portfolio market value.
3. Cash equivalents, including bank money market funds are permissible investments up to 10% of the Portfolio market value.
4. The Portfolio will contain between 25 and 30 securities.
5. Not more than ~~5% at cost or~~ 6% of the total market value of equity investments should be invested in the equity securities of any one company.
6. Not more than 10% of the outstanding equity of one issuer should be held in the portfolio.
7. Investments in derivatives are prohibited.
8. Leveraging or shorting the Portfolio is prohibited.
9. Investments in Sudan, Northern Ireland and South Africa are prohibited
10. Unregistered or restricted stock is prohibited
11. Physical Commodities are prohibited
12. Derivative investments including: forwards, futures options, warrants, hedging, or structured investments which display derivative like characteristics are prohibited
13. Margin buying is prohibited
14. Short selling is prohibited
15. Swaps, Scores, Primes are prohibited
16. The portfolio shall comply at all times with applicable laws and regulations
17. Direct investment in securities of companies that derive greater than 15% of revenue from the sale of tobacco and tobacco related products are prohibited
18. Investment in a pooled (commingled or mutual) fund that has greater than 15% of its securities invested in companies that derive more that 15% of their revenue from tobacco and tobacco related products is prohibited
19. Direct purchases of real estate, not including real estate held in managed accounts or within investment partnerships is prohibited

Schedule C
<u>Investment Objectives, Guidelines & Restrictions</u>

Mandate: U.S. Large Cap Value Equity

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1. The Portfolio may comprise listed stocks trading on U.S. exchanges and cash equivalents.
2. American Depository Receipts (ADRs) are acceptable investments up to 15% of the Portfolio market value.
3. Cash equivalents, including bank money market funds are permissible investments up to 10% of the Portfolio market value.
4. The Portfolio will contain between 25 and 30 securities.
5. Not more than 6% of the total market value of equity investments should be invested in the equity securities of any one company.
6. Not more than 10% of the outstanding equity of one issuer should be held in the portfolio.
7. Investments in derivatives are prohibited.
8. Leveraging or shorting the Portfolio is prohibited.
9. Investments in Sudan, Northern Ireland and South Africa are prohibited
10. Unregistered or restricted stock is prohibited
11. Physical Commodities are prohibited
12. Derivative investments including: forwards, futures options, warrants, hedging, or structured investments which display derivative like characteristics are prohibited
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PERAC

PERAC Memo # 27 / 2020

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

MEMORANDUM

TO: All Retirement Boards

FROM: John W. Parsons, Esq., Executive Director

RE: Regular Compensation and Creditable Service Status of Certain Leaves

DATE: August 28, 2020

This memorandum is intended to supplement and expand upon that portion of Memorandum No. 20 of 2020 regarding the status of certain leaves taken as a result of the coronavirus situation. In Memo No. 20 of 2020, we wrote:

> As you are likely aware, Congress recently passed the Families First Coronavirus Response Act ("FFCRA"). This law contains provisions for 10 days of paid sick leave for full-time employees unable to work due to the coronavirus. PERAC has determined that this paid leave should be treated the same as an employee's other paid sick leave, and regular compensation should be charged for these days. The circumstances of how a member qualifies for this leave are laid out in the legislation; whether an employee qualifies for the leave is a determination to be made by the employer. We note that the FFCRA contains other types of leave related to the coronavirus that are detailed; guidance is expected to be issued by the federal government in the days ahead. We recommend that you work with your municipalities on the implementation of these provisions and further issues that may arise relative to regular compensation. PERAC will continue to review the further guidance that is issued.

The FFCRA is effective from April 1, 2020 to December 31, 2020, and provides for various types of leave for employees. This memorandum only addresses that leave being paid pursuant to FFCRA's Emergency Paid Sick Leave Act ("EPSLA"). This leave is available for six distinct purposes as follows:

1. The employee is subject to a Federal, State, or local quarantine or isolation order related to COVID-19.
2. The employee has been advised by a health care provider to self-quarantine related to COVID-19.
3. The employee is experiencing COVID-19 symptoms and is seeking a medical diagnosis.

4. The employee is caring for an individual either (1) subject to a government quarantine/isolation order or (2) in self-quarantine based on the recommendation of a health care provider.
5. The employee is caring for their child whose school or place of care is closed (or child care provider is unavailable) due to COVID-19 related reasons.
6. The employee is experiencing any other substantially-similar condition specified by the U.S. Department of Health and Human Services.

An employee qualifying for this job-protected leave for any of the six reasons listed above is entitled to paid leave of up to 2 weeks or 80 hours for full time employees. Part-time employees are also entitled to this leave, and the number of hours a part-time employee will be given is based upon their customary schedule. The EPSLA leave is in addition to any paid sick or other leave to which an employee may otherwise be entitled. However, the rate of pay to which the employee is entitled under this leave differs depending upon the reason for the leave.

Those taking leave based on Reasons 1 to 3 as outlined above are to be paid 100% of their rate of pay. Those taking the leave for Reasons 4 to 6 are to be paid 2/3rds of their required rate of pay.

PERAC had previously opined in Memorandum No. 20 of 2020 that the two weeks of paid sick time provided for under reasons 1 to 3 are to be considered regular compensation and that the member is entitled to creditable service for this time. Now we have concluded that the leave paid at 2/3rds of rate of pay should also constitute full creditable service and retirement deductions must be taken on this pay. It is clear that, although the rate of pay is different, the leave is intended to encompass 2 full weeks or 80 hours for full time employees.

Because the member is receiving regular compensation and full-time creditable service for the two weeks, if this period does fall within someone's highest 3-year period (or highest 5-year period), then the Board should use the pay actually received (the pay at the 2/3 rate) for those two weeks.

Of note, and in regard to the EPSLA leave paid at the 2/3 rate, an employer and employee may mutually agree that the employee will use pre-existing leave entitlements to supplement his or her EPSLA leave up to his or her normal earnings. This is not a retirement board issue, this is for the employer and employee to decide, but retirement boards will no doubt receive contributions on these amounts paid. If the employee is paid his or her normal earnings, it will then have no effect on the highest years average used in the calculation of a retirement allowance.

Teleworking

Employees who are able to telework during the COVID-19 crisis are generally ineligible for the EPSLA leave. Extenuating circumstances, however, may exist that would make a teleworking employee eligible to take FFCRA leave. An obvious extenuating circumstance, which would come into play under Reason 3, is that an employee suffering from COVID-19 symptoms may simply be too ill to telework.

We trust the foregoing will be of some assistance to you. If you have any questions about this, please contact General Counsel Judith Corrigan at Extension 904.

PERAC

PERAC MEMO #28/2020

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

MEMORANDUM

TO: All Retirement Boards

FROM: Thomas J. O'Donnell, Compliance Director TJO'D

RE: Tobacco Company List

DATE: September 14, 2020

On October 22, 1997 PERAC Memo #37/1997 informed you of the adoption of Chapter 119 of the Acts of 1997. That statute prohibits retirement systems from making any new investments in stocks, securities, or other obligations of any company which derives more than 15% of its revenue from the sale of tobacco products. On December 18, 1997 PERAC sent Memo #48 regarding the implementation of Chapter 119 and the first Tobacco Company List.

Enclosed please find a Tobacco Company List dated October 2020. This list replaces any other Tobacco Company List previously sent to your board and is effective upon receipt by the retirement boards. Most of these companies appeared on previous lists and such investments were prohibited from the time the companies first appeared on the list. Please forward a copy to your investment advisors or inform them that this list is available on the PERAC website. In communicating with your investment advisors, please inform them that the Tobacco Company List is only for their Massachusetts public fund clients and that any other use of the list is strictly prohibited.

As part of its audit process, PERAC will assess the portfolio of each board to determine compliance. That review will determine if the board, after January 13, 1998, has purchased stock, securities, or other obligations of any company which derives more than 15% of its revenue from the sale of tobacco products. In the event a portfolio is not in compliance, the board must bring the portfolio into compliance by divesting in a prudent manner. Prior to taking any action, the board shall consult with PERAC.

In applying the statute to pooled funds, PERAC will assess the 15% rule against the entire pool as the board is purchasing shares in the pool not the individual holdings of the pool. Thus a pooled fund, if in violation of this standard, will be included on the list.

If you have any questions, please contact this office.

Enclosure

/ram

FIVE MIDDLESEX AVENUE, SUITE 304 | SOMERVILLE, MA 02145
PH 617 666 4446 | FAX 617 628 4002 | TTY 617 591 8917 | WWW.MASS.GOV/PERAC

TOBACCO COMPANY LIST
OCTOBER 2020

COMPANY	COUNTRY
22nd Century Group, Inc.	United States
A1 Group Inc	United States
Altria Group, Inc.	United States
AMCON Distributing Company	United States
B.A.T. Capital Corporation	United States
Core-Mark Holding Company, Inc.	United States
Fyolo Technology Corp	United States
Gilla Inc.	United States
Healthier Choices Management Corp.	United States
Medigreen Holdings Corporation	United States
Old Holdco, Inc.	United States
Philip Morris International Inc.	United States
Reynolds American Inc.	United States
Schweitzer Mauduit International, Inc.	United States
Smokefree Innotec Inc	United States
Turning Point Brands, Inc.	United States
Universal Corporation	United States
Vapor Group Inc	United States
Vapor Hub International Inc.	United States
Vector Group Ltd.	United States
VPR Brands LP	United States
Wee-Cig International Corp	United States
British American Tobacco Bangladesh Co. Ltd.	Bangladesh
Badeco Adria d.d. Sarajevo	Bosnia & Herzegovina
Bulgartabac Holding AD	Bulgaria
Gotse Delchev Tabac AD	Bulgaria
Nicotiana BT Holding AD	Bulgaria
Shumen Tabac AD	Bulgaria
Sila Holding Plc	Bulgaria
Slantse Stara Zagora Tabak AD	Bulgaria
Yuri Gagarin AD	Bulgaria
Anhui Genuine New Materials Co Ltd	China
Foshan Huaxin Packaging Co., Ltd.	China
Huabao Flavours & Fragrances Co Ltd	China
Mudanjiang Hengfeng Paper Co., Ltd.	China
Shenzhen Jinjia Group Co., Ltd.	China
Shiner International Inc	China

COMPANY	COUNTRY
CTO Public Company Ltd.	Cyprus
Philip Morris CR as	Czech Republic
Scandinavian Tobacco Group A/S	Denmark
Eastern Company SAE	Egypt
Karelia Tobacco Company Inc SA	Greece
China Boton Group Company Limited	Hong Kong
China Fortune Investments (Holding) Limited	Hong Kong
Ecogreen International Group Limited	Hong Kong
Huabao International Holdings Ltd.	Hong Kong
Sheen Tai Holdings Group Company Limited	Hong Kong
Godfrey Phillips India Limited	India
Golden Tobacco Ltd.	India
ITC Limited	India
NTC Industries Ltd.	India
Sinnar Bidi Udyog Ltd.	India
VST Industries Limited	India
Indonesian Tobacco Tbk PT	Indonesia
PT Bentoel International Investama Tbk	Indonesia
PT Gudang Garam Tbk	Indonesia
PT Hanjaya Mandala Sampoerna Tbk	Indonesia
Wismilak Inti Makmur Tbk PT	Indonesia
Globrands Group Ltd.	Israel
Societe Ivoirienne des Tabacs SA	Ivory Coast
Carreras Ltd.	Jamaica
Japan Tobacco Inc.	Japan
Al-Eqbal Investment Company PSC	Jordan
Jordanian Duty Free Shops PSC	Jordan
Union Investment Corporation PSC	Jordan
Union Tobacco & Cigarette Industries Co PSC	Jordan
British American Tobacco Kenya Ltd.	Kenya

COMPANY	COUNTRY
KT&G Corporation	Korea
Kuk-Il Paper Mfg Co., Ltd.	Korea
Tong Yang Moolsan Co., Ltd.	Korea
Tutunski Kombinat AD Prilep	Macedonia
7-Eleven Malaysia Holdings Berhad	Malaysia
Bright Packaging Industry Bhd	Malaysia
British American Tobacco (Malaysia) Berhad	Malaysia
B.A.T. Netherlands Finance B.V.	Netherlands
JT International Financial Services B.V.	Netherlands
Khyber Tobacco Company Ltd.	Pakistan
Pakistan Tobacco Company Ltd.	Pakistan
Philip Morris (Pakistan) Limited	Pakistan
Tri Pack Films Ltd.	Pakistan
Jerusalem Cigarette Co Ltd.	Palestinian Territory
Eurocash Spolka Akcyjna	Poland
Coka Duvanska Industrija ad Coka	Serbia
Duvanska industrija ad Bujanovac	Serbia
Philip Morris Operations a.d. Nis	Serbia
New Toyo International Holdings Ltd.	Singapore
Compania de Distribucion Integral Logista Holdings, S.A.	Spain
Miquel y Costas & Miquel, S.A.	Spain
Ceylon Tobacco Company Plc	Sri Lanka
Swedish Match AB	Sweden
Taiwan FamilyMart Co., Ltd.	Taiwan
Tanzania Cigarette Company Ltd.	Tanzania
The West Indian Tobacco Company Ltd.	Trinidad and Tobago
Bizim Toptan Satis Magazalari AS	Turkey
British American Tobacco Uganda	Uganda

COMPANY	COUNTRY
B.A.T. International Finance P.L.C.	United Kingdom
British American Tobacco Plc	United Kingdom
Essentra Plc	United Kingdom
Imperial Brands Finance Plc	United Kingdom
Imperial Brands Plc	United Kingdom
McColl's Retail Group Plc	United Kingdom
Cat Loi JSC	Vietnam
Cong ty Co phan Ngan Son	Vietnam
British American Tobacco Zambia Plc	Zambia
British American Tobacco Zimbabwe (Holdings) Ltd.	Zimbabwe

McManus, Julie

From:	Russo, Carolyn
Sent:	Tuesday, September 08, 2020 3:31 PM
To:	McManus, Julie
Subject:	FW: TerraCap IV Sells North Atlanta Multifamily Apartment Complex
Attachments:	TerraCap Release - Holcomb Sale - Atlanta GA.v4.docx

Julie:
Please add this as an FYI to the Board packets for the regular meeting at the end of the month
Thank you.
Carolyn

From: Steve Hagenbuckle
Sent: Tuesday, September 08, 2020 3:28 PM
Subject: [EXTERNAL] TerraCap IV Sells North Atlanta Multifamily Apartment Complex

[EXTERNAL]: This is an external email. Do not click on links or attachments if sender is unknown or if the email is unexpected.

Hello TerraCap Investors and Industry Friends,

Please see the attached press release and below links regarding our recent sale of The Crossings at Holcomb Bridge Apartments. This property was one of four we bought in a package in September 2017. This went under contract during the pandemic (June). The buyers and the TerraCap team worked closely together to get this completed. We were able to meet our pre pandemic pricing expectations and are pleased with the results. The 268 unit complex was acquired by Fund IV for $27.3 million and our sale price was $39 million.

Our asset management team in Atlanta headed up by Matt Stewart and Robert Witt created physical and operational improvements generating a 33% increase in the monthly rents from $787 to $1,046 over three years. Press release link below:

https://www.prnewswire.com/news-releases/terracap-management-sells-multifamily-property-in-northern-atlanta-suburb-for-39-million-301124792.html

Investment Highlights and anticipated performance results:

- Sale Price: $39,000,000
- Estimated Gross IRR: 21.75%
- Estimated Gross EM: 1.77
- Estimated Net IRR: 18.01%
- Estimated Net EM: 1.62X
- Loan Payoff: $21,240,000

"Steve Hagenbuckle"
As-it-happens update · September 8, 2020

NEWS

[TerraCap Management Sells Multifamily Property in Northern Atlanta Suburb for $39 Million]

PRNewswire

... business plan reach an outcome that exceeded our expectations," said **Steve Hagenbuckle**, Founding Partner and Managing Director for TerraCap.

Flag as irrelevant

See more results | Edit this alert

News Release

FOR IMMEDIATE RELEASE

TerraCap Management Sells Multifamily Property in Northern Atlanta Suburb for $39 million

Atlanta, GA (September 04, 2020) – TerraCap Management LLC, a privately held investment firm based out of Estero, Florida, announced today the sale of The Crossings at Holcomb Bridge Apartments. TerraCap acquired the 268-unit apartment complex for $27.3 million in September 2017 as part of a four-property, 1,100-unit multifamily portfolio purchase totaling $116,000,000. Since acquisition, TerraCap's combined strategy of property upgrades, organic rent growth, and unit renovations caused a significant increase in rental rates at the 1984 vintage property.

Robert Witt, TerraCap Asset Manager, said "When we bought the Holcomb property, we saw the opportunity to capitalize on a well-located asset with strong demographics, access to public transit, and in-place rents that were well below the competitive properties. We executed a capital plan to update the exteriors, renovate unit interiors, and improve the quality of onsite management. The physical and operational improvements generated a 33% increase in the monthly rents from $787 to $1,046 over three years. The buyer will take over a property where they can expand on the strong growth fundamentals that are currently in place."

The property is located in the northern Atlanta suburb of Roswell. The North Fulton submarket is one of the most desirable housing submarkets in Atlanta and rent growth has outpaced the metro average in recent years. TerraCap hired First Communities Management as the property manager because of their deep experience in executing value-add multifamily strategies across the Atlanta Market.

"We are pleased to see the North Atlanta Holcomb Apartments business plan reach an outcome that exceeded our expectations," said Steve Hagenbuckle, Founding Partner and Managing Director for TerraCap. "Our conviction towards investing in high demand, financially healthy markets that see outsized employment growth and in-migration continues, and remains a safe choice for us and our investors. The TerraCap asset management team and our local business partners need to be commended for their outstanding execution of this investment."

David Gutting of NGKF in Atlanta represented TerraCap on the sale. First Communities Management led by Mitch Harrison, Jon Nixon, and Ed Romano represented TerraCap on the property management.

About TerraCap Management LLC

TerraCap Management LLC considers thematic factors such as business formation, employment growth and population growth on a market-by-market basis, as most metros and submarkets have different economic-based industries and therefore move through their economic cycles differently. TerraCap makes moderate strategic overweighting or underweighting to markets, depending on the specific economic drivers influencing supply and demand.

The Investment Manager has been in operation since 2008 with its headquarters located in Estero, FL (Naples area), the firm also has offices in Tampa, FL, Denver, CO, and Atlanta, GA. As operators, TerraCap believes it can make decisions more efficiently while leveraging expertise from property to property. The firm has over six million square feet of commercial assets within its portfolio, with over one billion dollars of assets under management.

More information can be found at terracapmgmt.com.

For More Information, Contact:

Steve Good
239.898.4454
TerraCap Management LLC

McManus, Julie

From:	Tricia Igo <shawn@massretirees.ccsend.com> on behalf of Tricia Igo <tricia@massretirees.com>
Sent:	Wednesday, September 02, 2020 11:25 AM
To:	McManus, Julie
Subject:	[EXTERNAL] Assistance Appreciated

[EXTERNAL]: This is an external email. Do not click on links or attachments if sender is unknown or if the email is unexpected.

MASS RETIREES
The Online Voice of the Retired Public Employee

Dear MWRA,

Dear,
I hope this email finds you well. I'm writing to follow up on an email sent on Monday by Frank Valeri.
As Frank mentioned, the COVID-19 pandemic has led to a significant increase in the contact we have with retirees in need of assistance. We want to be sure that retirees, particularly new retirees, are aware of *Mass Retirees* and know that they can turn to us for assistance. Retiring during a pandemic must be unsettling, to say the least!
Therefore, I would like to ask at this time for a list of contact information for any of your members who have retired on or after 12/31/2019 to date. We would appreciate an electronic list in a .csv, .txt, or xls format and for the list to contain names, addresses, phone numbers and email addresses. As you know, we do not share retirees contact information with anyone outside of *Mass Retirees*.
Additionally, I would like to ask for a list of any of your retirees and survivors who have passed away on a regular basis – whether monthly or quarterly. It is not our intention to create additional work for the already busy board staff, but we're not always notified by family members when a retiree or survivor passes away. Many of you have received emails requesting updated address information when we get mail back as undeliverable – and as you know, you're often finding that the member in question has passed away. Were we to receive a regular list of deaths, it would cut down on the number of mailings we receive back and the number of times we have to reach out to board staff to check on the status of retirees and survivors.
I also want to say thank you for the assistance you provide to me throughout the year. One of the things we rely on from the various boards is access to a mailing list of retirees' and survivors' contact information. We appreciate the assistance the boards provide when they respond to our requests for these lists. There is strength in numbers, so we're constantly trying to grow our membership to increase the volume of our *Voice* on Beacon Hill.

Finally, we are now working on the November 2020 edition of *The Voice*, which is being published later this month. We're going to print a little earlier than normal in order to get needed information to our members prior to voting beginning for the General Election.

Please let me know ASAP if you have any new elections or appointments that we can publish in the November newsletter?

As always, please feel free to give me a shout if you have any questions or if I can be helpful.

Best,

Tricia Igo

Executive Secretary

Retired State, County and Municipal Employees Association

11 Beacon Street Suite 309

Boston, Massachusetts 02108

617-723-7283

Reach Out To Us