NOTE: These minutes were approved and executed at the January 24, 2014 Independent Investment Committee meeting.

Independent Investment Committee December 20, 2013

Public Minutes

New Hampshire Retirement System 54 Regional Drive Concord, NH 03301

Committee Members: Harold Janeway, Chair, David Jensen; Patrick O'Donnell; and Hersh Sosnoff. Catherine Provencher, absent.

NHRS Trustees: Dean Crombie and Dick Gustafson, Ph.D.

Staff: George Lagos, Executive Director; Larry Johansen, Director of Investments; Jack Dianis, Director of Finance; Jeff Gendron, Investment Officer; Scott Needham, Investment Analyst; and Greg Richard, Investment Analyst.

NEPC, LLC: Kevin Leonard, Partner and Senior Consultant; and Sean Gill, Partner.

Mr. Janeway called the meeting to order at 9:02 a.m.

Mr. Janeway surveyed the Committee for comments on the draft public and non-public minutes of the November 22, 2013 Investment Committee meeting. A motion to approve the public and non-public minutes of the November 22, 2013 Investment Committee meeting was made by Mr. Jensen and seconded by Mr. O'Donnell. The motion carried unanimously.

Mr. Johansen provided a brief update on the returns of the Marketable Investments portfolio through November 30, 2013. For the five-month fiscal year-to-date period ending November 30th the Marketable Investments portfolio returned 10.4%, underperforming the return of its custom benchmark of 10.5% by 10 basis points. The 1-year return through November 30, 2013 for the Marketable Investments portfolio was 19.5%, 70 basis points above the 18.8% return of the custom benchmark for the same period. The 5-year return of the Marketable Investments portfolio through November 30, 2013 was 14.8%, 80 basis points ahead of the custom benchmark return of 14.0%.

Mr. Johansen provided an update on the status of the liquidation of the fund-of-funds absolute return portfolio managed by Arden Asset Management ("Arden"). He indicated that to date, NHRS has received approximately \$35 million in proceeds from Arden, which represents approximately 80% of the portfolio's pre-liquidation market value. He commented that the remainder of the portfolio is invested in less-liquid assets, and is expected to be distributed to NHRS slowly over time.

Mr. Johansen mentioned that Staff and NEPC have scheduled interviews in January with emerging market equity managers and unconstrained fixed income managers, with the expectation that one or two of the fixed income managers will be selected to make an educational presentation at a future Committee meeting. A subset of the emerging market equity managers may also be selected to make portfolio presentations at a future Committee meeting.

The Committee discussed various options for investing the funds that are earmarked for future deployment into Alternative Investments and Real Estate and unanimously agreed that the current practice of investing these funds in the Blackrock S&P 500 portfolio is appropriate due to the high liquidity and low cost nature of the equity exposure.

Mr. Johansen informed the Committee that the trading cost monitoring agreement between NHRS and Abel/Noser Corporation ("Abel") expires upon completion of the trading cost analysis for the quarter ending December 31, 2013 and referenced the memo provided to the Committee from L. Johansen, which recommended that the agreement between the System and Abel be renewed. A motion was made by Mr. Jensen and seconded by Mr. Sosnoff to renew the trading cost monitoring agreement with Abel through the December 2015 reporting period. The motion carried unanimously.

Mr. Johansen informed the Committee that Staff is currently negotiating fees with BNY Mellon and Abel/Noser to add these managers to the current stable of transition managers. He noted that these contracts should be finalized shortly.

Mr. Tam McVie, Investment Director and Absolute Return Investment Specialist and Ms. Megan Costa, Director, U.S. Business Development of Standard Life Investments ("SLI") provided a brief introduction of themselves and their firm and detailed their Global Absolute Return Strategies product "GARS". They referred to SLI's "New Hampshire Retirement System – GARS" presentation.

In response to Committee member questions, Mr. McVie indicated that clients bucket the GARS strategy within asset allocation in various ways including absolute return, global tactical asset allocation, and alongside computer-driven quantitative strategies. Mr. McVie explained the risk metrics of GARS including Value at Risk (VAR) which historically has exhibited considerably less risk than global equities. Mr. McVie explained the GARS investment team compensation which is determined by a number of different factors including risk-adjusted performance of the GARS strategy, individual contribution to the strategy, and long-term incentives aligned with how well the company, Standard Life Investments, performs. Mr. McVie provided detail on the historical share of market risk exposure by the three main strategies of Market Returns, Directional Returns and Relative Value. Mr. McVie noted that the cash position within the GARS portfolio is currently about 40% which is due to implementing the strategy primarily through derivatives. He noted that the portfolio is structured with risk parameters which limit positions to a maximum of 30% of the stand-alone risk of that position, as measured by standard deviation. Mr. McVie confirmed that the latest quarterly report for GARS will be distributed to the Committee for review to assist with the evaluation of the strategy.

Mr. Johansen commented that Townsend would present a six-month update of their fiscal year 2014 real estate Investment Plan to the Committee. He noted that this plan includes the gradual rebalancing of the underlying strategic and tactical real estate portfolios to a 50%/50% target weighting, the prudent opportunistic liquidation of the System's direct property holdings, and the gradual increase of the real estate portfolio to its 10% target allocation.

Mr. Anthony Frammartino, Partner; Mr. Tony Pietro, Assistant Portfolio Manager; and Mr. Joe Davenport, Analyst of Townsend provided an overview of their firm, reviewed the performance of the System's real estate portfolio, and presented an update of their Fiscal Year 2014 Investment Plan. They referred to the "New Hampshire Retirement System Real Estate Portfolio Update" presentation, dated December 20, 2013.

In response to Committee member questions, Mr. Frammartino noted that recent client turnover has resulted in a net gain to the firm, meaning more clients have been added than lost. He stated that in response to the aforementioned client growth, the firm has added staff at a prudent rate. Mr. Frammartino mentioned that income accounted for approximately 50%-60% of the real estate portfolio's historical return given the overweight to the strategic component of the real estate portfolio. He stated that the portfolio will continue to transition towards

the target of 50% strategic and 50% tactical and that by calendar year end 2013 it is expected that the portfolio will be within the allowable target range of 40-60% for each component.

In response to additional Committee member questions, Mr. Pietro highlighted the progress to date that Stockbridge Capital Group has made on the transition of the direct property holdings. Mr. Frammartino provided a brief preview of the FY 2015 real estate plan that will be presented to the Committee at its June 2014 meeting. He concluded by noting that given today's historically low interest rate environment driven by the Federal Reserve Bank, as opportunities present themselves, property debt is being refinanced to lock in low rates.

Mr. Johansen informed the Committee that the real estate investment management agreement between NHRS and The Townsend Group ("Townsend") expires on December 31, 2013 and referenced the memo provided to the Committee from L. Johansen, which recommended that the agreement between the System and Townsend be renewed. A motion was made by Mr. Jensen and seconded by Mr. O' Donnell to renew the real estate investment management agreement with Townsend through December 2015. The motion carried unanimously.

Mr. Gill presented an overview of the status of the NHRS private equity/debt program; private equity/debt markets; and investment opportunities, as well as a proposed calendar year 2014 private equity/debt strategic plan for approval by the Committee. He referred to the presentations titled "Private Debt & Private Equity Portfolio Review" and "Annual Strategic Plan – Private Debt & Private Equity", dated December 20, 2013.

In response to Committee member questions, Mr. Gill confirmed that the liquidity pacing model incorporates the quicker return of capital from private debt compared to private equity which requires higher committed amounts to reach the target allocation of 5% private debt. Mr. Gill stated that the asset allocation target of 10% to private equity & private debt is currently forecasted to be reached within the next 3-5 years, given certain assumptions including growth of the overall Total Fund and timing of investment cash flows and opportunities. He confirmed that the pacing schedule is analyzed each year and adjustments are made accordingly as needed. He indicated that future reports would show the invested value in the asset class rather than just the committed amount.

In response to additional Committee member questions, Mr. Johansen noted that the current strategy of investing in a combination of large and

small funds remains a reasonable plan which helps maintain vintage year and manager diversification. Mr. Gill concurred with this strategy.

A motion was made by Mr. Jensen and seconded by Mr. Sosnoff to approve the private equity & debt strategic plan for calendar year 2014 which includes a pace of 5-7 investments totaling between \$200-\$250 million, subject to market conditions. The motion carried unanimously.

Mr. Gill confirmed that the next iteration of the Annual Private Debt and Private Equity Portfolio Review will include additional detail on investment specifics for each investment made, as suggested by the Committee. Mr. Gill explained various metrics contained within the Portfolio Review.

Mr. Janeway entertained a motion to convene into non-public session under RSA 91-A:3, II(d) for the purpose of considering the acquisition, sale or lease of real or personal property which, if discussed in public, would likely benefit a party or parties whose interests are adverse to the general community. A motion was made by Mr. Sosnoff and seconded by Mr. Jensen to enter into non-public session, in accordance with the aforementioned provision.

Roll call vote:

Aye: Mr. Janeway, Mr. Jensen, Mr. O'Donnell, and Mr. Sosnoff.

Nay: None

Motion carried.

The Committee discussed the options available to NHRS when a commitment has been made to a private equity or private debt fund in which the first closing is substantially delayed.

A motion was made by Mr. Sosnoff and seconded by Mr. Jensen to conclude non-public session.

Roll call vote:

Aye: Mr. Janeway, Mr. Jensen, Mr. O'Donnell, and Mr. Sosnoff.

Nay: None

Motion carried.

The Committee continued the discussion of the GARS opportunity, provided feedback on the presentation and strategy and debated the pros and cons of the strategy. Mr. Leonard and Mr. Johansen confirmed that the opportunity is considered a "go anywhere" strategy which would be bucketed within the opportunistic sleeve of the alternative investments asset allocation. The Committee agreed to continue the discussion and hear a presentation from a GARS portfolio manager at a future meeting.

Mr. Jensen departed the meeting.

The Committee discussed DoubleLine Capital and NEPC confirmed that the manager is being tracked by the firm.

Mr. Janeway entertained a motion to convene into non-public session under RSA 91-A:3, II(c) for the purpose of discussing a matter which, if discussed in public, would likely affect adversely the reputation of a person other than a member of the public body. A motion was made by Mr. Sosnoff and seconded by Mr. O'Donnell to enter into non-public session, in accordance with the aforementioned provision.

Roll call vote:

Aye: Mr. Janeway, Mr. O'Donnell, and Mr. Sosnoff.

Nay: None

Motion carried.

The Committee discussed a Boston Globe article regarding a non-NHRS hedge fund.

A motion was made by Mr. Sosnoff and seconded by Mr. O'Donnell to conclude non-public session.

Roll call vote:

Aye: Mr. Janeway, Mr. O'Donnell, and Mr. Sosnoff.

Nay: None

Motion carried.

On a motion by Mr. Sosnoff, seconded by Mr. O'Donnell, the meeting adjourned at 12:30 p.m.