NOTE: These minutes were approved and executed at the August 17, 2012 Investment Committee meeting.

Independent Investment Committee July 20, 2012

Public Minutes

New Hampshire Retirement System 54 Regional Drive Concord, NH 03301

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

NHRS Trustees: Dean Crombie; Dick Gustafson, Ph.D.; Kate McGovern, Ph.D.; Don Roy; Lisa Shapiro, Ph.D.; and Jack Wozmak.

Staff: George Lagos, Executive Director, Larry Johansen, Director of Investments; Tim Crutchfield, Chief Legal Counsel; Jack Dianis, Director of Finance; Marty Karlon, Public Information Officer, Jeff Gendron, Investment Officer, Scott Needham, Investment Analyst; and Greg Richard, Investment Analyst.

Mr. Janeway called the meeting to order at 9:05 a.m. Mr. Johansen provided a detailed summary of the Investment Consultant RFP process that resulted in presentations today by two finalists, Callan Associates, Inc. and NEPC, LLC. The Investment Consulting RFP was issued in March 2012, and 16 proposals were received from interested candidate firms in early April. Only 15 firms met the minimum requirements. Of those firms, 7 provided full consulting services proposals. He commented that after reviewing the proposals, interviewing several candidate firms, and multiple discussions with the Investment Committee, the search was narrowed to the two finalist candidates presenting today.

Jay Kloepfer, Executive Vice President and Director of Capital Markets and Alternatives Research; Millie Viqueira, Senior Vice President; Bud Pellecchia, Senior Vice President; and Gary Robertson, Senior Vice President and Manager of Private Equity Research, of Callan Associates, Inc. ("Callan") presented an overview of their firm and its investment consulting capabilities.

In response to a Committee question, Mr. Pellecchia confirmed that although Callan's manager database may contain managers that have

experienced poor historical performance returns or problematic firm-level issues, these firms would not successfully filter into a subset of managers for consideration when a manager search is conducted. He noted that these managers are included in the universe so that Callan can track these firms in the event they experience a turnaround and so the manager universe is as robust as possible.

In response to Committee questions, Mr. Pellecchia noted the qualitative aspect of Callan's manager database as a valuable firm-wide resource. He commented that the information included in this database is gathered from due diligence meetings conducted by Callan's research staff, as well as information sourced from the firm's general investment consultants' experiences in working with various managers. Ms. Viqueira noted that the qualitative insights contained within the database are helpful to Callan's manager review committee and when the firm conducts manager searches. She added that the level of experience and tenure of Callan's staff is beneficial as many of these individuals have a familiarity with many managers.

Responding to questions from Committee members and Trustees, Ms. Viqueira and Mr. Pellecchia reviewed Callan's thoughts on the existing stable of NHRS investment managers. They also noted that managers who are not in Callan's database and those that do not subscribe to the Callan Institute are often included in manager searches that the firm conducts on behalf of its clients, and do win mandates.

Mr. Pellecchia and Ms. Viqueira responded to a Trustee question regarding Callan's value-add to clients by noting that as consultants, they do not have discretion over their clients' portfolios, but they seek to assist these fiduciary decision-makers in making the best, most well-informed decisions possible. Mr. Kloepfer responded to a Committee question by indicating those features that Callan feels makes the NHRS portfolio distinct and different from its public fund peers, including the plan's funded ratio and the level of alternative investments included in the portfolio. He acknowledged that Callan has experience with clients that have converted from defined benefit plans to defined contribution plans, both in the private and public sectors.

Mr. Kloepfer addressed the methodology behind Callan's capital market expectations in the context of asset-liability studies. He noted that current market conditions suggest substantial differences in market expectations in the short term versus longer time frames, making this a difficult exercise. In response to a Committee member question, he suggested a possible public fund portfolio allocation for plans such as NHRS that targets a 40% allocation to public markets; a 20% allocation to fixed income; and a 40% allocation to diversified opportunistic asset

classes, which could include things like real estate, private equity, and hedging strategies, depending on individual client needs and profiles.

Michael Manning, President and Managing Partner; Christopher Levell, Partner; Kevin Leonard, Partner; and Sean Gill, Partner, of NEPC, LLC ("NEPC") presented an overview of their firm and its investment consulting capabilities. Mr. Leonard acknowledged that NEPC has served as the System's general investment consultant since January 1, 2009.

Mr. Manning described NEPC's ownership structure, commenting that equity ownership in the firm is spread broadly across 31 employee partners. He noted that equity ownership potential is an important tool for the organization in attracting and retaining talented individuals. He added that NEPC has become a destination employer, with very low turnover of its professional staff. In response to a Committee question, he noted that NEPC will continue to grow its business carefully and at a measured pace, so as to not compromise service to the firm's existing clients, nor the organization's culture.

In response to a Committee question regarding NEPC's ability to forecast developments at investment management firms and notify their clients in a timely manner in an effort to avoid related negative consequences, Mr. Gill cited an instance in which NEPC advised certain clients to liquidate their holdings in a particular hedge fund, given that the fund was about to lose another large investor and face potential liquidity concerns. Mr. Levell discussed another example where NEPC learned that a key individual at an investment management firm would be unexpectedly leaving that organization, and notified clients whom were able to terminate their portfolio mandates and gain an early-mover advantage prior to other portfolio redemptions.

Mr. Manning noted the open dialogue between NHRS and NEPC, indicating that the relationship has been beneficial to both parties, from his perspective, in response to a Committee question about the working relationship. Mr. Leonard cited NEPC's revised portfolio performance reporting as an example of NEPC implementing feedback received from NHRS and other clients. In response to a Committee question, Mr. Manning indicated that NEPC has experience in assisting clients in adding to their staff.

In response to a Committee question, Mr. Manning indicated that NEPC measures itself from a client service perspective via national industry surveys, and that all employees receive merit bonuses based on the firm's placement in such surveys. With regard to encouraging employees at the firm to remain on top of industry developments and stay sharp, he

noted NEPC's culture of not being complacent with the status quo, and that the firm encourages employees at all levels to share ideas and contribute to firm initiatives. Mr. Levell noted that all employees are encouraged to find areas where the firm can improve and propose solutions. He commented that employees are rewarded for this behavior, and employees that engage in these types of activities are those that succeed within the organization.

Mr. Leonard and Mr. Manning referred to the evolving nature of NEPC's Focused Placement List (FPL) process that the firm utilizes when conducting manager searches. They commented that the process is not stagnant, but that managers are continually reviewed and data is constantly refreshed so that the process is beneficial to NEPC's clients and features relevant information.

Upon conclusion of the investment consultant finalist candidates' presentations, Messrs. Leonard and Gill of NEPC rejoined the meeting in their current capacity as Senior Consultant and Alternative Investment Consultant to NHRS, respectively.

Mr. Gill provided a brief introduction of Ironwood Capital ("Ironwood") and how the proposed investment fits in the context of the System's Private Equity Work Plan. Marc Reich, President and Co-founder; and Carolyn Galiette, Senior Managing Director and Co-founder, of Ironwood presented an overview of their firm and Ironwood Mezzanine Fund III, LP ("IMF III").

In response to a Committee question, Ms. Galiette indicated that with a staff of approximately 20, Ironwood evaluates which portfolio companies will require more direct investor involvement, and then analyzes these participation levels in the context of potential expected return and firm capacity, prior to initiating an investment. She indicated that there is not any one particular exit strategy that Ironwood seeks for their portfolio companies.

Responding to a question from NEPC, Ms. Galiette summarized the structure and features of IMF III. Mr. Reich indicated that Ironwood prefers to be actively involved in the board meetings of portfolio companies, regardless of whether or not they maintain an actual seat on a given board. He noted that Ironwood will seek 40 to 45% board seat representation for IMF III.

In response to a question from the Committee, Ms. Galiette indicated that involvement in Small Business Investment Company funds has been beneficial to Ironwood from a structural and regulatory perspective, and

NHRS Independent Investment Committee July 20, 2012

that the Small Business Administration has not been intrusive in the investment process.

Ms. Galiette explained Ironwood's quarterly portfolio company review process. She noted that Ironwood tracks several standard corporate metrics for each portfolio company, on a monthly basis. She indicated that there are also individual industry-specific metrics that are reviewed per portfolio company. Each quarter, the five Ironwood partners formally review and discuss each portfolio company. Company-level statistics are also aggregated, and reviewed at the fund level.

In response to a Committee question, Ms. Galiette indicated that Ironwood attempts to mitigate the unknown impact of potential regulatory reform on potential portfolio companies by seeking higher-margin companies. Mr. Reich commented that Ironwood models a 15% first-year business downturn for each portfolio company.

Mr. Reich noted that Ironwood expects one or two additional closings on IMF III before ending the fundraising period and beginning to deploy capital. He noted that many times Ironwood invests alongside those competitors that they value the most in the mezzanine space.

Mr. Gill provided a brief introduction of Coller Capital ("Coller") and how the proposed investment fits in the context of the System's Private Equity Work Plan. Frank Morgan II, President; and Ashley Johansen (no relation to Larry Johansen, NHRS' Director of Investments), Senior Marketing Manager, of Coller provided an overview of their firm and Coller International Partners VI ("CIP VI").

In response to a Committee question, Mr. Morgan commented that CIP VI featured a target size of \$5 billion. He noted that CIP VI closed at \$5.5 billion, which is slightly larger than the firm's previous fund of \$4.8 billion. He confirmed that Jeremy Coller is 52 years old, in response to another question from the Committee regarding succession planning.

Mr. Morgan responded to a Committee question, commenting that he has not seen an influx of new competitors in the secondaries market over the last several years, but that the existing competition has grown in terms of secondaries assets under management, as has Coller. In response to a question from the Committee, Mr. Morgan noted those secondaries firms that Coller feels represents the best of their competition.

Mr. Morgan reviewed the current private equity holding levels of the large European banks, of which a significant portion are expected to be sold as these banks face regulatory changes. These sales present potential buying opportunities for secondary fund managers such as Coller.

Responding to a Committee question about risks to the portfolio, Mr. Morgan indicated that if the merger and acquisition market completely dried up, there would be a significant headwind to Coller's portfolio exit strategies. As a sizeable portion of portfolio assets are denominated in euros, he also cited risks associated with the currency as a potential concern.

Mr. Johansen surveyed the Committee for comments on the draft public and non-public minutes of the June 22, 2012 Investment Committee meeting. As there were none, a motion to approve the public and non-public minutes of the June 22, 2012 Investment Committee meeting was made by Mr. Jensen and seconded by Mr. Sosnoff. The motion carried unanimously.

Mr. Johansen reviewed projected investment management fees for marketable portfolio assets, which were presented to the NHRS Board of Trustees in conjunction with the Board's approval of the NHRS Trust Fund Budget for fiscal year 2013.

Mr. Johansen provided a brief update of the performance of the System's Marketable Assets component, which represents approximately 90% of the Total Fund, through June 30th. For the fiscal year ended June 30, 2012, the Marketable Assets component returned 0.1%, underperforming the 0.9% return of the Marketable Custom Index by 80 basis points. He noted that on a preliminary basis, the NHRS Total Fund returned 0.7% for fiscal year 2012 and 11.8 % for the three-year period ending June 30, 2012.

Mr. Johansen reviewed a draft private equity report with the Committee. He indicated that when finalized, the report will be provided to the Board of Trustees on an annual basis, to keep the Board informed on the status of the private equity program. The Committee requested that an additional column be added to the report that reflects contributions net of funds returned.

Mr. Johansen referred to the draft Political Contributions Policy. He commented that currently, the Policy is only directed at the System's investment managers. The Policy is being revised so that all outside service providers with a significant NHRS business relationship will be subject to it. The Committee discussed the implications of the Policy on individual Trustees and Committee members.

Mr. Johansen reviewed the Trustee Education Policy with the Committee, indicating that this document will be amended to include the three

NHRS Independent Investment Committee July 20, 2012

independent members of the Committee so that they may avail themselves of educational opportunities.

Mr. Johansen referenced the Work Plan dated June 26th. He noted that the second quarter of Fiscal Year 2013 was added for the Committee's consideration and approval, and he outlined the tasks included within that quarter. A motion to approve the work plan for the second quarter of fiscal year 2013 was made by Mr. O'Donnell and seconded by Mr. Jensen. The motion carried unanimously.

Mr. Johansen referenced memos provided to the Committee from L. Johansen and NEPC which recommend that the investment management agreement between NHRS and Boston Trust & Investment Management Company ("Boston Trust") be renewed. A motion was made by Mr. Jensen and seconded by Mr. Sosnoff to renew the investment management agreement with Boston Trust through September 2014. The motion carried unanimously.

Mr. Johansen referred to memos provided to the Committee from L. Johansen and NEPC which recommend that the investment management agreement between NHRS and C.S. McKee, LP ("McKee") be renewed. The Committee acknowledged and discussed comments made by McKee at the June Committee meeting, regarding the manager's expectation of improved performance returns by the end of calendar year 2012. The Committee agreed that they would review and discuss McKee's portfolio performance through the end of calendar 2012 at the January 2013 Committee meeting. In addition, Staff and NEPC will monitor McKee's performance through the end of the year and provide the Committee with regular updates.

A motion was made by Mr. Jensen and seconded by Mr. O'Donnell to renew the investment management agreement with McKee through September 2014. The motion carried unanimously.

The Committee discussed the earlier presentation by Ironwood Capital, noting the firm's experience and successful historical performance pattern. In response to a question from the Committee, Mr. Johansen confirmed that NHRS would be offered a seat on the Ironwood Mezzanine Fund III advisory board and that he would occupy that seat. A motion was made by Mr. O'Donnell and seconded by Mr. Jensen to commit \$20 million to Ironwood Mezzanine Fund III, LP, subject to contract and legal review. The motion carried unanimously.

The Committee discussed the earlier presentation by Coller Capital. In response to a question from the Committee, Mr. Gill commented that there is a succession plan in place at Coller. He noted that there is

sufficient investment talent in place at Coller, should Jeremy Coller leave the firm unexpectedly. A motion was made by Mr. Sosnoff and seconded by Mr. Jensen to commit \$20 million to Coller International Partners VI Class A, subject to contract and legal review. The motion carried unanimously.

Mr. Johansen reviewed actions taken to date by the Committee with respect to the asset allocation recommendation decision and referred to NEPC's "Proposed Asset Allocation" memo, dated July 11, 2012 and "Asset Allocation Review" presentation, dated June 22, 2012.

Mr. Johansen described an asset allocation proposal presented for the Committee's consideration, which involves reducing the target allocation to fixed income by 5% while increasing the target allocation to alternative investments by 5%. The increased alternative investment target allocation of 15% would feature a 5% target allocation to private equity, with an acceptable range of 0-7%; a 5% target allocation to private debt, with an acceptable range of 0-7%; with the remainder of the alternative investment portfolio to be invested on an opportunistic basis.

In response to questions from the Committee, Mr. Johansen noted that this allocation approach does not preclude the Committee from investing in hedge funds, but would not obligate the Committee to invest in hedge funds should they not find attractive offerings in that space. Mr. Johansen commented that the Committee's Alternative Investment Guidelines, which staff is in the process of drafting, will be provided to the Board after they are approved by the Committee.

The Committee had a lengthy and robust discussion of hedge funds, debt markets, and various asset allocation mixes and targets.

Ms. Provencher departed the meeting at this time.

A motion was made by Mr. Jensen and seconded by Mr. Janeway to recommend the following asset allocation targets and ranges to the Board of Trustees:

	Target	Allocation
Asset Class	Allocation	Range
Domestic Equity	30%	20 - 50%
Non-U.S. Equity	20%	15 - 25%
Fixed Income	25%	20 - 30%
Real Estate	10%	0 - 15%
Alternative Investments	15%	0 - 20%

NHRS Independent Investment Committee July 20, 2012

The motion carried unanimously.

The Committee agreed to continue exploring hedge funds in search of attractive investment opportunities.

Mr. Janeway entertained a motion to convene into non-public session under RSA 91-A:3, II(c) to discuss matters which, if discussed in public, would likely adversely affect the reputation of a person, other than a member of the public body itself. A motion was made by Mr. O'Donnell 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 unanimously.

The Committee discussed the investment consulting finalist presentations made by Callan and NEPC.

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

Roll call vote:

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

Nay: None

Motion carried unanimously.

A motion was made by Mr. Jensen and seconded by Mr. O'Donnell to recommend that the Board of Trustees retain NEPC, LLC to serve as NHRS' General Investment Consultant for a term of three years with the ability to extend the contract for two additional one-year periods, commencing January 1, 2013, subject to contract and legal review. The motion carried unanimously.

On a motion by Mr. O'Donnell, seconded by Mr. Jensen, the meeting adjourned at 2:30 p.m.