NOTE: These minutes were approved and executed at the May 18, 2012 Investment Committee meeting.

Investment Committee Meeting April 20, 2012

New Hampshire Retirement System 54 Regional Drive Concord NH 03301

The Investment Committee meeting was called to order at 9:04 a.m. Present were:

Investment Committee: Mr. Harold Janeway (Committee Chair); Mr. David Jensen; Mr. Patrick O'Donnell; Ms. Cathy Provencher; and Mr. Hershel Sosnoff.

NHRS Board Members: Mr. Dean Crombie and Dr. Kate McGovern.

NHRS Staff: Mr. George Lagos, Executive Director; Mr. Lawrence Johansen, Director of Investments; Mr. John Browne, Internal Auditor; Mr. Jeff Gendron, Investment Officer; Mr. Scott Needham, Investment Analyst; and Mr. Greg Richard, Investment Analyst.

NEPC, LLC ("NEPC"): Mr. Erik Knutzen, Chief Investment Officer; Mr. Kevin Leonard, Partner and Senior Consultant; Mr. Sean Gill, Partner; and Ms. Lynda Dennen, Senior Research Consultant.

Supporting documentation for the items listed below is maintained on file and available for review at the New Hampshire Retirement System's ("NHRS" or "System") administrative office.

Items requiring Committee discussion or action:

Approval of the March 23, 2012 Investment Committee Minutes

Mr. Janeway surveyed the Committee for comments regarding the draft minutes of the March 23, 2012 Investment Committee meeting. There was one minor change suggested by the Committee.

A motion to approve the minutes of the March 23, 2012 Investment Committee meeting, as amended, was made by Mr. Jensen and seconded by Mr. O'Donnell.

Motion carried unanimously.

Comments from the Director of Investments

Mr. Johansen briefly reviewed the performance of the Marketable Assets composite through March 31, 2012. He noted the fiscal year to date return of 3.0% underperformed the benchmark return of 3.4% by 40 basis points but mentioned that the underperformance gap has decreased significantly from 140 basis points as of September 30, 2011 and 110 basis points as of December 31, 2011. He noted that Staff has scheduled calls with a few of the equity managers to discuss recent relative underperformance.

Mr. Johansen provided an overview of the high-level tasks and projects being addressed by the Committee and Staff and referred to the Work Plan and related cover memo dated March 29, 2012, indicating that the first quarter of fiscal year 2013 has been added to the Work Plan for the Committee's consideration. He noted that the System received sixteen proposals for investment consulting which are currently being reviewed by Staff.

A Committee member suggested that the work being performed on the asset allocation review be detailed more explicitly within the Work Plan.

A motion was made to approve the Work Plan for the first quarter of fiscal year 2013, as amended:

Motion: Mr. O' Donnell Second: Mr. Jensen

Motion carried unanimously.

Mr. Johansen noted that the Real Estate Asset Class guidelines have been revised to incorporate the Committee's suggestions made at the March meeting. The Committee made a few more suggestions which included revising the purpose of real estate investing to reflect the primary objective of providing a superior return with a secondary objective of diversification; and to prohibit investing in structured mortgage-backed securities without prior approval of the Committee.

A motion was made to approve the Real Estate Asset Class Guidelines, as amended:

Motion: Mr. Jensen Second: Mr. Sosnoff

Motion carried unanimously.

Mr. Johansen provided a legislative update and referenced the 2012 Legislative Tracking Summary. He noted that the Senate tabled their bill that proposed creating a study commission of the NHRS pending possible resolution of outstanding issues in the House bill to create a defined contribution plan for new hires.

Mr. Johansen informed the Committee that the investment management agreement between

Investment Committee Minutes – April 20, 2012 Page 2 of 6 NHRS and LSV Asset Management (LSV) is due for renewal and acknowledged LSV's presentation at the March 2012 Committee meeting. He noted that at its July 2010 meeting, the Committee requested that NEPC provide a recommendation with regard to such manager agreement renewals when they come due. He referenced memos provided to the Committee from L. Johansen and from NEPC, which recommend that the agreement between the System and LSV be renewed.

In response to Committee questions, Mr. Leonard confirmed that LSV's strategy remains the same; that LSV continues to be on NEPC's Focused Placement List (FPL); and explained NEPC's FPL process. He noted that while LSV's recent performance has not been as good as historical performance, NEPC continues to believe that LSV has the ability to capture superior risk-adjusted returns, despite the growth in the firm's assets under management. Based on a Committee member request, Mr. Leonard confirmed that future NEPC recommendation memos will include pros and cons of the manager.

A motion was made to renew the investment management relationship with LSV through June 2014:

Motion: Mr. O' Donnell Second: Mr. Jensen

Motion carried unanimously.

Thornburg Investment Management Presentation

Mr. Leonard provided a brief overview of Thornburg Investment Management.

Mr. Lei Wang, Co-Portfolio Manager and Managing Director; Mr. Rolf Kelly, Associate Portfolio Manager; and Ms. Frances D'Alessio, Senior Portfolio Specialist of Thornburg Investment Management (Thornburg) presented an overview of their firm and a review of the Core Non-U.S. Equity portfolio that the firm manages on behalf of the System. They referred to the "New Hampshire Retirement System" presentation.

In response to Committee questions, Mr. Wang indicated that the portfolio's price/sales ratio, currently at 1.4x, has declined over the past couple of years. Mr. Wang explained several strategies that the firm uses in selecting European securities and noted that the portfolio has decreased its exposure to peripheral Europe to about 1%. He provided a detailed overview of attribution for the one-year ended March 31, 2012 and the quarter-ended March 31, 2012 mentioning the currency effect and hedging strategies that are employed by Thornburg. Mr. Rolf confirmed that the portfolio team's buy discipline is largely based on the price-to-earnings ratio but noted that this ratio is internally adjusted across different countries in order to take into account different accounting standards and practices. He also noted that Thornburg builds the portfolio from the bottom up without constraint from the country weightings of the benchmark and he concluded the presentation with a brief global market outlook.

Institutional Capital Presentation

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, Ms. Provencher and Mr. Sosnoff. Nay: None

Motion carried.

The Committee discussed recent organizational changes within NHRS Large Cap Value Domestic Equity manager Institutional Capital as summarized in the NEPC memo titled "ICAP Announcement Regarding Tom Cole", dated April 19, 2012.

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

Roll call vote:

Aye: Mr. Janeway, Mr. Jensen, Mr. O'Donnell, Ms. Provencher and Mr. Sosnoff. Nay: None

Motion carried.

Mr. Jerrold Senser, Chief Executive Officer and Chief Investment Officer; and Ms. Paula Rogers, President of Institutional Capital (ICAP) presented an overview of their firm and a review of the Large Cap Value Equity portfolio that the firm manages on behalf of the System. They referred to the "New Hampshire Retirement System" presentation, dated April 20, 2012.

Mr. Senser provided an update on the addition of Mr. Tom Cole who recently joined ICAP as Co-Director of Research to work alongside Mr. Thomas Wenzel and explained the rationale behind the hiring. In response to Committee questions, Mr. Senser indicated that the firm historically has hired internally but the external hiring of Mr. Cole has been a smooth transition thus far as the firm is being proactive with its employees to ensure that they know there are ample opportunities for professional growth. Ms. Rogers added that internal candidates for the position can achieve these opportunities as they continue to build tenure and experience.

In response to Committee member questions, Mr. Senser noted the companies within the portfolio's top ten holdings that are repurchasing shares and explained that this is primarily the result of high cash flow generation by these companies. He stated that to date about 20% of

companies have reported Q1 2012 earnings and that generally the earnings have exceeded expectations while revenue of these companies has been in line with forecasts. Mr. Senser confirmed that the revenue growth of these companies has slowed while earnings have grown primarily as a result of reducing employee costs but noted that, in the near-term, the firm does not think that employee costs per sales are going to rise but confirmed that at some point, the current profit margins are not sustainable in the longer-term. Mr. Senser concluded with a brief global market outlook.

Asset Liability Monitoring Study/Asset Allocation Review: Potential Asset Allocation Mixes

Mr. Johansen provided an overview of today's discussion regarding the ongoing asset liability modeling study/asset allocation review. He stated that NEPC will make a detailed presentation of the potential mixes, as requested by the Committee at the March meeting, along with the underlying assumptions incorporated into each mix. Mr. Johansen stated that these mixes are not recommendations; they are being presented at the request of the Committee, to begin the discussion of potential target allocations.

Mr. Knutzen, Mr. Leonard and Ms. Dennen referred to the "New Hampshire Retirement System Asset Liability Study" presentation, dated April 20, 2012. Mr. Leonard summarized the asset allocation mixes included in the presentation for discussion purposes. These mixes include the Current Actual Allocation; the Current Target Allocation; and two 80% Equity/20% Fixed Income Scenarios, one including a hedge fund allocation and one without a hedge fund allocation. Ms. Dennen added that this presentation is to be considered preliminary and may need to be updated.

In response to Committee questions, Mr. Knutzen noted that the various economic scenarios presented are based on global developed countries. Mr. Leonard explained the probability statistics illustrated in conjunction with the various asset allocation mixes presented. He noted that there is about a fifty percent probability of earning the 7.75% actuarially assumed rate of return over a 30-year period, based on the scenarios presented.

Mr. Leonard summarized the four asset allocation mixes presented noting that a shift away from fixed income to equity is expected to increase return while simultaneously increasing volatility. The Committee had a lengthy discussion regarding the impacts of volatility on the System over its long-term horizon in comparison to the risk of permanent impairment of capital. The Committee acknowledged the effect of short-term volatility on setting the employer contribution rates.

In response to further Committee questions, Mr. Knutzen stated that the System has higher equity allocations than NEPC's typical client. In response to a question by Mr. Lagos, Mr. Leonard responded by stating that NEPC will gather information regarding universe asset allocation mixes to compare to NHRS.

After a lengthy and robust discussion, the Committee agreed to further explore other asset allocation options which have the potential to create a more efficient portfolio. Mr. Johansen confirmed that the next meeting will include an overview of hedge funds and that variations on the fixed income allocation will also be presented.

NEPC Presentation: Risk Management

Mr. Knutzen referred to the "Tail Risk" memo, dated May 13, 2010. He noted that its author, Mr. John Minahan, will make a presentation to the Committee at its May meeting.

Currency Hedging – Summary of NHRS Managers

As requested by the Committee at its March meeting, Mr. Johansen summarized the foreign currency management practices of certain NHRS investment managers, and referred to the "Foreign Currency Management" memo, dated April 10, 2012.

A Committee member mentioned recent newspaper articles alleging that both Bank of New York Mellon and State Street overcharged certain clients on foreign currency transactions. Mr. Johansen confirmed that NHRS investment managers are not required to use the System's custodian for foreign exchange transactions and that these allegations have not been made against The Northern Trust Company.

Based on the discussions earlier in the meeting, Mr. Johansen indicated he will attempt to schedule meetings with LSV and ICAP at their offices before the May Committee meeting.

Investment Committee Checkpoint Discussion

The Committee determined that it would be beneficial to set aside a few hours at a future meeting to discuss the portfolio and the major issues outside of the regular agenda.

The Committee recognized Mr. Leonard as he was recently awarded Public Fund Consultant of the Year by Money Management Intelligence.

Mr. Johansen noted that the annual NEPC client conference is May 15-16th.

Informational Items:

Investment Performance – FYTD February 2012

Asset Allocation Update

NEPC Performance Report – February 2012

A motion was made by Mr. O'Donnell and seconded by Mr. Jensen to adjourn the April 20, 2012 meeting of the NHRS Investment Committee.

Motion carried unanimously.

The meeting adjourned at 12:47 pm.

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