



# **INVESTMENT POLICY**

**Statement of Investment Policies and Procedures (SIP&P)**

**Last Comprehensive Review: 2013**

**Amended to: April 10, 2017**

## Table of Contents

		Page
Section 1	- Purpose .....	1
Section 2	- Nature of NSHEPP Obligations .....	2
Section 3	- Fund Governance .....	3
Section 4	- Investment Beliefs, Asset Mix, Diversification, Rebalancing and Return Expectations.....	6
Section 5	- Conflict of Interest Policy and Disclosure .....	12
Section 6	- Lending of Cash and Securities.....	13
Section 7	- Delegation of Voting Rights .....	14
Section 8	- Liquidity & Valuation of Securities not Regularly Traded.....	15
Section 9	- Pooled Funds.....	17
Section 10	- Related Party Transactions.....	18
Appendix I	- Risk Budget .....	19
Appendix II	- Performance Objectives .....	20
Appendix III	- Categories of Investments.....	21
Appendix IV	- Characteristics of the IPP .....	23
Appendix V	- Interim IPP .....	24

## **Section 1 - Purpose**

- 1.1 The primary goal of NSHEPP is to provide current and future NSHEPP beneficiaries with competitive pension benefits at a competitive cost. The prudent and effective management of NSHEPP's assets (the "Fund") will have a direct impact on the achievement of this goal.
- 1.2 This statement of investment policies and procedures (the "Statement") addresses the manner in which the Fund shall be invested. The Statement also defines the management structure and other procedures adopted for the ongoing operation of the Fund. Investments shall also be selected in accordance with all relevant legislation. NSHEPP's Board of Trustees (the "Trustees") have prepared this Statement based on their investment beliefs and assessment of how much risk can be prudently tolerated.
- 1.3 The merits of any component of this Statement should only be assessed considering its impact on the entire portfolio.
- 1.4 This Statement satisfies the compliance requirements of the Nova Scotia Pension Benefits Act regulations, schedule I, subsections (3) and (4).

## **Section 2 – Nature of NSHEPP Obligations**

NSHEPP is a defined benefit pension plan. The objective is to protect benefits from inflation, both prior to and during retirement. This is accomplished as follows:

- a) As a career average pension plan, inflation protection is provided prior to retirement with ad-hoc (but traditionally annual) base year improvements; and
- b) During retirement inflation protection is provided to a maximum of 3% per annum, with any inflation in excess of 3% being provided on an ad-hoc basis.

The cost of the benefits is shared between active NSHEPP members and their employers as is described in the Trust Agreement . The Trustees recognize that the liabilities of NSHEPP are independent from the market value of NSHEPP assets and consequently, active NSHEPP members and their employers are directly exposed to the Fund's investment risk.

As of July 1, 2014, NSHEPP had 30,463 active members with an average age of 44.5 years, 908 deferred members and 8,664 retirees.

As of July 1, 2014, the estimated financial position of NSHEPP was as follows:

- Market value of assets: \$5.183 billion
- Funding ratio: 122%
- Solvency ratio: 101%

The assumptions on which the above results are based are described in the July 1, 2014 actuarial report that is available on NSHEPP's website.

The Trustees have adopted this Statement based on their risk budget as described in Appendix I, and the expectation that NSHEPP will be maintained indefinitely.

## Section 3 – Fund Governance

3.1 The Trustees are the legal administrator of NSHEPP and are responsible for its overall management. The Trustees have delegated tasks to an investment committee (the “Committee”), NSHEPP’s CEO and to various agents they have retained to assist them in carrying out duties in respect of the Fund. The Trustees, however, retain overall responsibility for the Fund. The Trustees have allocated their responsibilities in respect to the Fund as set out below.

### The Trustees

3.2 The Trustee shall:

- a) comprehensively review the Statement at least every five years, including the policy and active risk budgets, the asset categories, the allocation between such categories and the appropriateness of the duration of the fixed income assets (*noting in particular that the Real Return Bonds and the related overlay are managed on a “buy and hold” basis and will therefore shorten over time*);
- b) review the Statement at least annually, and confirm or amend it as needed;
- c) consider and approve as deemed appropriate any Committee recommendations;
- d) enter into any and all contracts and agreements in accordance with the Trustees’ duties under the Trust Agreement;
- e) monitor quarterly the total Fund risk and returns quantitatively, relative to the relevant market benchmark and the Liability Benchmark. In addition, at least annually the total Fund shall be monitored qualitatively, with an assessment of any individual Managers that the Committee has identified as requiring additional attention; and
- f) delegate tasks relating to the overall management of the Fund to the Committee, NSHEPP’s CEO and/or to external agents.

### The Committee

3.3 The Committee shall:

- a) establish the specific investment mandates and recommend to the Trustees the appointment and termination of investment managers (the “Managers”) for such mandates;
- b) monitor total Fund and individual Manager performance quantitatively and qualitatively at least annually. The review shall include a comparison of the rates of return relative to the objectives established, an analysis of the reasons for such relative returns, and an assessment of the risk assumed in the pursuit of such returns. This will include meetings or conference calls with an average of at least 2 managers per quarter. Priority will be given to meetings and conference calls with managers that are perceived to require greater attention. Furthermore, the Committee will meet at least annually with any Manager in which NSEHPP has an ownership interest. It is generally expected that the Committee will recommend termination of any Manager whom the Consultant rates less than B+, and may at their discretion recommend termination of B+ rated Managers;
- c) make any required determinations in accordance with infrastructure “opt-out” clauses, notifying the Manager of such determinations in accordance with the applicable Management Agreement;
- d) maintain and increase their investment governance capabilities in accordance with governance policy #G-10; and
- e) complete any other tasks delegated by the Trustees.

**The Managers**

- 3.4 The Managers shall:
- a) select securities and construct their portfolio subject to all relevant legislation, the Statement, their respective Management Agreement and any supplementary documents;
  - b) meet with the Committee as requested to present their analysis of the investment performance and to describe their current and future investment strategies regarding their specific investment mandates;
  - c) prepare periodic written reports of investment performance results;
  - d) submit quarterly certificates attesting to their compliance with all relevant legislation, the Statement, their respective Management Agreement and any supplementary documents, and notify NSHEPP's CEO of instances of non-compliance;
  - e) notify NSHEPP's CEO of significant developments that may impact the management of its mandate, both of an operational nature and also within the investment markets;
  - f) give prompt notice to the Custodian of all purchases and sales of securities;
  - g) identify provisions in the Statement that may need to be revised due to new investment strategies or changes in the capital markets; and
  - h) be governed by the CFA Institute's Code of Ethics and Standards of Professional Conduct.

**The Custodian**

- 3.5 The Custodian shall:
- a) perform the duties required of the Custodian by law and pursuant to agreements entered into from time to time with the Trustees;
  - b) process the security transactions that result from the buy and sell orders placed by the Managers, provided that such transactions comply with all relevant legislation; and
  - c) provide NSHEPP staff with monthly portfolio reports of all assets of the Fund and monthly reports of all transactions during the period.

**NSHEPP CEO**

- 3.6 The CEO shall assure that:
- a) the Fund is rebalanced and liquidity is managed in accordance with sections 4.4 and 8 respectively;
  - b) in accordance with this Statement, exposures to large cap US equities and Canadian equities are maintained through the use of SWAPS;
  - c) any other tasks delegated by the Committee or Trustees are completed;
  - d) the Committee and Trustees have whatever assistance is required to perform their tasks; and
  - e) Trustees are advised of possible revisions to this Statement that may be beneficial.
  - f) Complimenting the Committee's monitoring responsibilities as described in section 3.3b), the CEO will assure that pension investment staff maintains reasonable familiarity with the Managers, and meets at least quarterly with any Manager in which NSHEPP has an ownership interest.

- g) the Investment Committee is informed whenever the Fund's allocation to Illiquid Assets (in aggregate) is less than the long-term allocations set out in section 4.2, and this is expected to persist long enough (at least 2-3 years) to be practically investable. The Committee may at such times consider temporary reallocations of part of the hedge fund allocation, using such "excess liquidity" to increase expected returns while respecting the Fund's risk budget. An example of such a reallocation could be to less liquid hedge fund strategies. For this purpose, "Illiquid Assets" are defined in Note 8 of Appendix V.

### **The Consultant**

3.7 The Consultant shall upon request:

- a) participate in the preparation and subsequent reviews of the Statement;
- b) assist in the selection and ongoing monitoring of the Managers. This shall include notification of significant developments regarding the Managers and any changes in manager research ratings that are made between formal monitoring reports;
- c) bring to the attention of NSHEPP's CEO other issues that may be relevant to the asset governance of the Fund; and
- d) provide any other required assistance.

---

## Section 4 - Investment Beliefs, Asset Mix, Diversification, Rebalancing and Rate of Return Expectations

### Investment Beliefs

- 4.1 When the Trustees completed their last comprehensive review of the Fund's investment strategies in 2013, they held the following beliefs:
- a) NSHEPP will be maintained indefinitely and accordingly should be managed as a long term going concern;
  - b) to the extent that assets and liabilities are impacted differently by changes in interest and inflation rates, this risk is expected to be uncompensated. Therefore exposure to this risk should be kept as low as is practically possible;
  - c) leverage does not always increase risk and can be used to improve how effectively NSHEPP's risk budget is used. In particular, leverage can be used to increase long term fixed income exposure, changing the Fund's sensitivity to changes in interest and inflation rates to more closely match the sensitivity of NSHEPP liabilities, thus reducing total NSHEPP risk;
  - d) that portfolio leverage should be obtained as efficiently as practically possible. More specifically, derivative exposures and repurchase agreements will generally be a preferable source of leverage to conventional borrowing where this is practical;
  - e) active investment management has the potential to add value (net of fees) to market returns, but this potential is felt to be greater in some assets classes than in others. Furthermore, since passively managed asset classes are the main source of the Fund's leverage pursuant to subsections 4.1c) and d), the potential for active management to add value must also consider any differences in the cost of leverage imbedded in the different synthetic exposures. In particular, the potential to add net long term value through active management of fixed income, large cap US equities, "low vol" global equities (vs. passive exposure to a modified index) and Canadian equities is felt to be modest;
  - f) that active managers with concentrated "high conviction" portfolios have the potential to add more value to market returns but with increased tracking error risk. If several such managers are used, much of their tracking error risk should diversify away at the total portfolio level;
  - g) notwithstanding section 4.1c), in most cases leverage tends to increase risk, potentially in excess of that contemplated by the Risk Budget described in Appendix I. Accordingly, leverage should be avoided except within the infrastructure, hedge fund and emerging market debt portfolios, or except as is specifically provided for in section 4.2;
  - h) equity and various other "alternative" investments should provide greater long-term returns than fixed income investments, although with increased total enterprise risk;



- i) it is prudent to diversify the Fund across asset classes, and that broader diversification than implied by computer risk models may make sense to guard against so-called “fat-tail” risks;
- j) it is prudent to diversify the Fund within asset classes, with the number of Managers chosen to balance the diversification benefit against the management fee impact;
- k) “core” or “style neutral” equity mandates are expected to provide long term risk adjusted returns that are similar to either a growth or value style, and accordingly any style bias of the total Fund away from core should be limited in order to guard against periods of relative underperformance. Notwithstanding this belief, style biases for individual Mandates are acceptable so long as such style biases are offset by other Mandates;
- l) while expected risk and return are the Trustees’ paramount concern, a secondary consideration is that infrastructure and private equity investments should not result in a loss of Canadian public sector jobs (i.e. privatizations, etc.);
- m) foreign currency exposure in the Infrastructure Fund Loan Facility represents unrewarded risk and should therefore be hedged to Canadian dollars.

Foreign currency exposure in other asset categories does not materially increase total enterprise risk, and in the case of US equities and hedge funds appears to reduce enterprise risk. Furthermore, except in the case of synthetic equity exposures, currency hedging has a cost and puts additional demands on NSHEPP’s liquidity. Therefore currency risk related to physical assets except as described in the prior paragraph should not be hedged.

In the case of synthetic equity exposures, currency hedging is effectively built into the derivative structure, with no additional cost or expected demand on NSHEPP’s liquidity, and therefore currency should be hedged;

- n) separate account management should be favoured over pooled funds so long as the fees are comparable. Advantages supporting this belief include greater fee transparency and cash levels that tend to be lower;
- o) Tactical asset allocation (TAA) is in most cases not expected to improve the trade-off between expected risk and return. Accordingly, asset mix should be passively managed (rebalanced in accordance with section 4.4) unless a specialist TAA Manager is employed; and
- p) strategies such as active currency management, private equity, etc. may improve the trade-off between expected risk and return, but consideration of such strategies was deferred to a future policy review. In particular, during the 2013 Investment Policy review an allocation to private equity was very carefully considered, but was ultimately deferred due to lack of conviction that current valuations would provide risk and return benefits relative to public equities (with a comparable style) after adjusting for differences in fees, leverage and valuation methods.

**Asset Mix**

4.2 A fixed income portfolio could be constructed that would approximate the changes in going-concern liabilities due to interest and inflation rate fluctuations. Such a fixed income portfolio is called the Liability Benchmark. The Liability Benchmark is not a perfect hedge to the pension liabilities and should only be seen as a proxy. The Liability Benchmark is discussed further in Appendix I.

If the Fund were invested in the Liability Benchmark, the risk or volatility of NSHEPP's going concern funded position would be very low but the expected returns would be correspondingly low, increasing the cost of providing benefits.

In order to achieve the purpose described in Section 1 of competitive benefits at a competitive cost, the Trustees have decided to tolerate a limited amount of investment risk. As explained in Appendix I, the most important source of this risk is the Fund's long-term asset mix which differs significantly from the Liability Benchmark.

The Investment Policy Portfolio (IPP) is set out in the following table. It defines the long-term asset mix that should permit the achievement of the investment objectives of the Fund with an acceptable degree of risk.

Asset Class		Index	Less estimated passive costs (see note 1)	Investment Policy Portfolio
Fixed Income	<b>Nominal</b>	DEX Long-Term Provincial (see note 5)	0.03%	37.5%
	<b>Real Return</b>	Return of the RRB portfolio including overlay of provincial spread (see note 7)	0.03%	27.5%
	<b>Mortgage Loans (see notes 2 and 6)</b>	Mortgage index	–	11.5% + Mortgage Debt
	<b>Cash</b>	DEX 91 Day T-Bill	0.03%	3%
	<i>Subtotal</i>			<b>79.5% plus Mortgage Debt</b>
Equities	<b>Canadian</b>	S&P/TSX 60	0.03%	6.5%
	<b>US</b>	S&P 500	0.04%	10%
		Russell 2500	0.06%	4%
	<b>Foreign</b>	MSCI EAFE	0.07%	10%
		MSCI EAFE small cap	0.18%	4%
		MSCI Emerging Market (EM)	0.15%	8%
<i>Subtotal</i>			<b>42.5%</b>	
Alternatives	<b>Real Estate (see note 8)</b>	IPD Canadian Annual Property Index	–	13.5% (gross of leverage)
	<b>Infrastructure</b>	CPI + 5%	–	10%
	<b>Hedge Funds</b>	50% HFR FoF Conservative Index plus 50% HFR FoF Diversified Index	–	10%
	<b>Emerging Market Debt</b>	JP Morgan EMBI Global Diversified	0.26%	2.5%
		JP Morgan GBI-EM Global Diversified	0.26%	2.5%
<i>Subtotal</i>			<b>38.5%</b>	
Leverage (see note 3)	<b>Fixed Income</b>	OIS + 0.15%	-	-44% (see note 4)
	<b>Canadian equities</b>	CDOR	-	-6.5%
	<b>US equities</b>	LIBOR + 0.15%	-	-10%
	<b>Mortgage Debt (see note 2)</b>	Mortgage index	-	-(Actual Weight)
	<i>Subtotal</i>			<b>-(60.5% plus Mortgage Debt)</b>
<i>Total</i>				<b>100%</b>

**Notes regarding above table:**

Foreign currency exposure is not hedged to Canadian dollars except for synthetic equity exposures and the Infrastructure Loan Facility referred to in Appendix V (see Section 4.1m).

Note 1: As noted in Appendix II, performance is evaluated net of fees, compared to the relevant benchmark net of any applicable passive fees.

Note 2: The “Mortgage index” is a weighted average of federal bond indices having a duration that matches the mortgages, plus a spread of 1.5%.

Note 3: Corresponding to section 4.1d), leverage other than Mortgage Debt is provided through “repo” agreements and derivatives on the noted asset classes. The index for these sources of leverage is an estimate of the average short term interest that is implicit in these arrangements.

*Note 4: Leverage on fixed income assets is to be applied approximately proportionately to the Real Return Bonds (RRBs) and the nominal bonds. Furthermore, the leverage on the nominal bonds should be staggered so that 30% rolls at the same time as the fund is being rebalanced each quarter, and 35% rolls in each of the other months of the quarter. Leverage has been allocated in this way so that:*

- *unleveraged nominal bonds are available to be pledged as collateral for derivative transactions (nominal bonds generally being more acceptable as collateral than RRBs);*
- *the potential demands that leverage rolls put on NSHEPP's liquidity are lessened.*

*Note 5: As described in our fixed income manager's mandate, the nominal bond portfolio's exposure to Quebec and Nova Scotia are gradually being reduced (to counter the Quebec overweight in the RRB portfolio and the exposure to NS as the primary source of participating employers' funding). Accordingly the DEX Long-Term Provincial Index will gradually become less representative of our nominal bond holdings and will therefore eventually need to be replaced as the nominal bond benchmark.*

*Note 6: The mortgage allocation is limited to real estate mortgages where either a) the total debt to equity ratio is 25% or less or b) our loan is not subordinated to any other loan and our percent share of the total debt on the property is no more than our percent ownership share or c) the mortgage terms that impact default risk are approved by the Trustees.*

*Note 7: The RRB portfolio is composed of provincial and Canada issues and an overlay that captures the provincial-Canada spread on a portfolio of nominals. The objective of the Canada plus provincial overlay is to provide an enhanced return relative to provincial RRB's but with similar risk characteristics.*

*Note 8: As a general goal, real estate investments should be reasonably well diversified by geography within Canada and by sector, with roughly 50% retail and 50% in other sectors. Participation in development and redevelopment real estate projects will be pursued opportunistically, giving consideration to the expected return premium at any given time relative to core real estate, but in any event not exceeding 30% of total real estate. It is stressed that these are general goals, the pursuit of which should not be allowed to unduly delay the attainment of the aggregate policy target as set out in the above table.*

*Notwithstanding the IPP shown above, the Trustees may authorize temporary deviations in asset mix to accommodate a Fund restructuring, a Manager restructuring, or a Manager request submitted in writing. More specifically, as the asset mix is currently in transition, an interim asset allocation has been adopted and is presented in Appendix V.*

**Diversification of Portfolio** (applicable to actively managed assets)

- 4.3 Reasonable diversification is assured by the Fund's asset mix policy. Furthermore the Fund's structure allocates less than 5% to single Managers except in the case of "indexed" mandates, fund-of-fund mandates and two mandates of illiquid assets.

Because of the belief described in section 4.1f), Trustees will tend to select Managers with portfolios that are more concentrated than average.

**Rebalancing**

- 4.4 Each Mandate will be rebalanced in accordance with the following:
- a) Cash will be rebalanced by making corresponding adjustments to fixed income leverage. The cash allocation is to be monitored daily and increased to 3% on any day that the allocation falls below 2.25% (*2 business days notice currently required*). The allocation is to be decreased to 3% when unfunded fixed income exposures roll when the allocation is above 3.75% (*6 business days notice currently required*);
  - b) Allocations to illiquid assets other than Hedge Funds will not be subject to rebalancing. Variances from target for these asset categories will be brought to the Committee's attention. Any actions to address such variances will be subject to Trustee approval;
  - c) RRBs will be purchased as necessary, but to minimize transaction costs will not be sold when the portfolio is rebalanced. Purchases will normally be Canada's, with the expectation that in combination with the related overlay (see note 7 of section 4.2) the risk exposure will be similar to provincial RRB's but with a superior average return. Even if the related overlay has not yet been put in place, RRB purchases will be Canadas in anticipation of the related overlay being put in place in the future. Provincials will be considered subject to Investment Committee approval, only when the net spread advantage of the Canada + overlay combination is negative calculated as of the date of the RRB purchase;
  - d) The overlay referred to in note 7 of section 4.2 will be added to as described in the fixed income manager's mandate. Depending on the spread advantage that is available from the Canada RRB + overlay combination compared to provincial RRB's, this may result in the overlay exceeding the Canada RRB's by a maximum of \$250 million. To minimize transaction costs the overlay will not be reduced when the portfolio is rebalanced;
  - e) Pooled fund Mandates will be rebalanced quarterly to their respective target allocations where transaction charges are absorbed by the pool. Similarly foreign currency hedges and synthetic equity and domestic fixed income exposures where transaction charges are minimal, will be rebalanced to their respective target allocations;
  - f) Other Mandates will be rebalanced quarterly only when their allocation varies from their respective target allocation by more than 20%. When such rebalancing occurs it

will be to within 10% of the target allocation. For example, a Mandate with a 5% target allocation will be rebalanced if the actual allocation is less than 4% or more than 6%, (the  $\pm 1\%$  range being 20% of 5%), in which case it will be rebalanced to 4.5% or 5.5% (the  $\pm 0.5\%$  range being 10% of 5%) respectively. Net cash flows until the end of the next following quarter-end will be used to reduce remaining variances from the Mandate's target allocation; and

- g) Notwithstanding 4.4f), the total allocation to equities will not be permitted to vary outside of a 37.5% to 47.5% range.

A Mandate's target allocation shall be determined based on the IPP allocation as described in section 4.2, adjusted to reflect the actual RRB and illiquid asset allocations. When an asset class (other than illiquid assets) is managed by more than one Manager, the allocation to each shall be equal.

Notwithstanding the above, temporary variance from the above Hedge Fund allocations is permitted where "gates", "hard locks" or "soft locks" are applicable, or to avoid unduly reducing diversification between strategies or managers within a fund-of-fund mandate. It is also recognized that rebalancing Hedge Fund allocations is typically subject to lengthy redemption notice periods.

#### **Rate of return expectations**

- 4.5 The long term expected return from the Fund determined in accordance with Appendix IV is 7.8% or 5.4% above the Liability Benchmark return. These returns exclude any value added from active management and is net of any investment management fees that are built into the indices, any applicable passive management fees and any transaction expenses. Actual returns may differ significantly from these expected returns, especially over short time periods.

## Section 5 – Conflict of Interest Policy and Disclosure

The Trustees, the CEO, and any agents appointed by either shall discharge their duties with unconflicted loyalty to what they reasonably believe is the best long-term economic interest of NSHEPP's beneficiaries.

A conflict of interest arises where

- 1) a person, or
- 2) to the knowledge of the person
  - a) a member of his or her family (including spouse, parents, children - regardless of residence), or
  - b) any other person living in that person's household,

has an interest in a transaction or investment, or a proposed transaction or investment by NSHEPP. Such an interest may actually exist, or may merely appear to exist.

A conflict of interest may arise where a person has a personal relationship which may, or which may appear to, compromise independence or his or her ability to provide an impartial and objective assessment, recommendation, or decision in any circumstance.

Where a conflict of interest or a possible conflict of interest arises - the person concerned shall immediately remove themselves from any discussion, assessment, recommendation, or decision in connection with the issue in question.

The person concerned shall disclose the conflict, in writing, to the Chair at the earliest opportunity after the person perceives the conflict and, in any event, before taking part in the discussion or decision-making on the investment or transaction.

The above shall not be read to contravene or otherwise limit the scope of any prior or subsequent conflict of interest guidelines that NSHEPP may have established or may establish for the conduct of its Trustees, the CEO, or agents.

## **Section 6 – Lending of Cash and Securities**

Cash loans are not permitted.

Market events of 2008 relating to the failure of various counterparties have improved market participants' understanding that securities lending programs are not completely without risks. Even where an indemnity clause is provided by the associated custodian, losses can be large relative to program revenues. Therefore, NSHEPP will only enter into securities lending arrangements after the Trustees have concluded that the expected risks are justified by the rewards from such a program.



**Section 7 – Delegation of Voting Rights**

- 7.1 The Trustees delegate to the Managers the responsibility of exercising all voting rights acquired through the Fund. The Managers shall exercise such voting rights with the intent of fulfilling the investment objectives and policies of the Statement and for the long-term benefit of the Fund.
- 7.2 The Managers shall provide their voting rights policies to NSHEPP's CEO. Each Manager shall prepare an annual report to the CEO outlining and explaining any departures from, or exceptions to, the policies, any issues where the Manager has voted against corporate management, and any other extraordinary matters.
- 7.3 The Trustees retain the right to exercise acquired voting rights at any time by notifying the Managers.

## Section 8 – Liquidity and Valuation of Securities not Regularly Traded

It is recognized that a significant proportion of the Fund has limited liquidity. In addition, portfolio rebalancing, cash calls from unfunded commitments and ongoing cash flows associated with derivative exposures heighten the importance of careful management of liquidity. On the other hand, liquidity requirements are reduced because cash inflow from contributions is currently well in excess of cash outflow for pensions and expenses.

In September 2013 a stress test was completed by the Consultant which confirmed the prior conclusion that the liquidity needs of NSHEPP under severe conditions do not permit aggregate allocations to illiquid assets in excess of the long term targets set out in section 4.2. For this reason, Appendix V carves out over-weights to illiquid assets from the hedge fund allocation.

When cash is required, it should be obtained from the following sources in the order specified:

- a) Securities should be posted (rather than using cash) when possible to meet derivative collateral requirements;
- b) Cash allocation;
- c) Additional bonds should be leveraged;
- d) The timing of rebalancing may be delayed so long as the expected delay is no longer than 3 months;
- e) Synthetic exposures can be used as part of the rebalancing process in order to temporarily reduce the requirement for liquidity;
- f) Cash is to be swept from segregated accounts in consultation with the investment managers for such accounts;
- g) Physical exposures are to be replaced with synthetic exposures, with priority being given to exposures with higher liquidity and lower expected alpha;
- h) Emerging market debt is to be redeemed;
- i) Hedge funds are to be redeemed.

In the event that leverage becomes less available (for example if there is a change in the regulatory environment or counterparty availability), the targeted risk exposures should be retained to the extent feasible. Higher priority should be placed on retaining the fixed income and other beta exposures rather than on retaining the hedge fund exposures, as these beta exposures have a bigger expected impact on our risk budget. If for example, it was no longer possible to obtain unfunded fixed income exposure, a partial solution could be to redeem hedge funds, using the resulting cash to replace unfunded fixed income with physical fixed income. If it becomes necessary to make material changes to targeted beta allocations, and the changes are not expected to be very temporary, an Asset Liability Study should be undertaken to determine a new target asset allocation.

Investments that are not regularly traded shall be valued at least annually by the Custodian in co-operation with each Manager. When valuing less liquid assets, the Custodian and Manager shall consider at least one of the following:

- a) bid and ask prices,
- b) previous transaction prices,

- c) discounted cash flow,
- d) independent appraisal values,
- e) the valuation of comparable publicly-traded investments, and other valuation techniques judged relevant.

## **Section 9 – Pooled Funds**

The policies covering conflict of interest, securities lending, delegation of voting rights, valuation of securities not regularly traded and permitted investments and constraints, for assets invested in pooled funds, will be subject to the investment policies of said pooled funds.

## Section 10 – Related Party Transactions

A transaction with a related party is assessed to be material to NSHEPP if the transaction (or the total of multiple transactions with the same related party over a single calendar year) is in excess of \$1,000.

Transactions with a related party are permitted to provide for office premises, related services, information technology support services, and non-pension staff benefits that are required for the operation and administration of NSHEPP if:

- the terms and conditions of the transaction are not less favourable to NSHEPP than market terms and conditions, with this being verified by the CEO prior to entering into or renewing any agreement. For services that aren't covered by a formal agreement, this verification will occur whenever the payment terms change significantly, and in any event no less than every 5 years.

While no other related party transactions are expected, any such transaction will only be as permitted under Section 16 of Schedule I of the Regulations under the Pension Benefits Act.

## Appendix I – Risk Budget

For NSHEPP, the Liability Benchmark has been determined as follows:

Asset classes	Index	Liability Benchmark
Medium Term Bonds	DEX Universe Bond Index	7%
Long Term Bonds	DEX Overall Long-Term Bond Index	7%
Real Return Bonds	DEX Real Return Bond Overall Index	86%

A pension plan can increase its level of risk to have better expected returns in two ways. The first is to allow its strategic allocation to differ from the Liability Benchmark (for example, by incorporating equity investments). This mismatch risk creates surplus volatility and is called beta ( $\beta$ ) risk or policy risk. The second is to allow investment managers to differ from their benchmark via asset mix decisions or security selection. This mismatch risk creates tracking error and is called alpha ( $\alpha$ ) risk or active management risk.

The Trustees have decided on the total investment risk budget for NSHEPP after considering the high proportion of contribution volatility that is related to current service cost volatility that cannot be hedged. After deciding on the total investment risk budget, risk budgeting techniques were used to decide the two levels of risk/return objectives for NSHEPP as follows:

Risk measures		Value added Objective (annually over 4-year moving periods)	Risk Budget (should have a one year change by no more than this, 9 years out of 10)
$\alpha$ (active risk)		0.4% (net of fees)	2.5%
$\beta$ (policy risk)		5.4% (vs. Liability Benchmark)	11.6% (vs. Liability Benchmark)
Total		5.8% (vs. Liability Benchmark)	11.9% (vs. Liability Benchmark)

The figures set out in the above table were determined based on the methodology described in Appendix IV.

## Appendix II – Performance Objectives

Performance (net of fees and transaction costs) for each mandate will be evaluated compared to the relevant benchmark (net of any applicable passive fees) as set out in section 4.2 of this Statement. Results for actively managed mandates are to be evaluated over rolling four-year periods while passively managed mandates are to be evaluated over rolling one-year periods. There is no value added objective for illiquid allocations.

<b>Asset Classes</b>	<b>Performance Objective</b>
Real Return Bonds – (passive)	± 0%
Other Fixed Income – (passive)	± 0.75%
Canadian Equities (passive)	± 0%
U.S. Large Cap Equities (passive)	± 0%
US Small Cap Equities (active)	+ 1.0%
International Large Cap Equities (active)	+ 0.75%
International Small Cap Equities (active)	+ 1.0%
Global Large Cap Equities (active)	+ 1.0%
Emerging Markets Equities (active)	+ 1.25%
Emerging Market Debt (active)	+ 2.0%

## Appendix III – Categories of Investments

### a) Investments in Debt and Loans

- 1) Money Market Securities including, without limitation:
  - Cash on hand (including foreign currencies),
  - Demand and notice deposits,
  - Treasury bills,
  - Promissory notes (secured and unsecured),
  - Term loans (secured and unsecured),
  - Banker's acceptances,
  - Commercial paper,
  - Swap deposits,
  - Call loans,
  - Repos and reverse repos, and
  - Other money market securities.
  
- 2) Bonds, Debentures, Term Loans, Mortgages and Real Return Bonds and Mortgages including, without limitation:
  - Short and long-term debt securities (including corporate and other debt) either physically or through Forwards and Futures,
  - Private placement debt securities (including secured loans and other debt obligations, guaranteed investment contracts, and real estate and leasehold mortgages),
  - Inflation-indexed debt,
  - Forwards or Futures may be shorted as part of a strategy to overlay provincial credit spread onto debt securities issued by the Government of Canada,
  - Credit Default Swaps.

### b) Equity or Variable Income Investments and Loans

- 1) Publicly traded securities including, without limitation:
  - Publicly traded equity securities,
  - Securities convertible into publicly traded equity securities,
  - Common stocks,
  - Options, Futures or Forwards on common stocks and equity indices,
  - Convertible debentures,
  - Preferred stocks,
  - Trust interests,
  - Partnership interests,
  - Commodities,
  - Foreign Exchange short exposure through derivative instruments used to hedge foreign currency risk,
  
  - American Depository Receipt, and
  - Global Depository Receipt.



- 2) Real Estate including, without limitation:
  - Real estate (95% of which must be income producing),
  - Real estate debentures, and
  - Real Estate Investment Trusts (REITs).
  
- 3) Non-publicly traded investments including, without limitation:
  - Private company equity securities,
  - Securities convertible into private company equity securities,
  - Resource properties,
  - Farmland and woodland and similar investments, which may be made by acquiring interests in easements, profits à prendre, licenses, or otherwise,
  - Venture capital investments,
  - Interests convertible into resource properties and other equity investments,
  - Partnership interests,
  - Trust interests,
  - Pooled, mutual, or segregated funds,
  - Commodities,
  - Swap contracts, and
  - Forwards.

## Appendix IV – Characteristics of the IPP

### Assumptions Used

	Treasury Bills <sup>a</sup>	Provincial LT	Overall LT	Universe Bonds	Overall RRB <sup>**</sup>	Canadian Equity (Large Cap)	US Equity (Large Cap)	Intl Equity (Large Cap)	US Equity (Small Cap)	Intl Equity (Small Cap)	Emerging Markets Equity	Emerging Markets Debts	Infrastructure	Real estate	Hedge Funds	Private Equity	Timberland / Farmland	Mortgage	
Long Term Expected Nominal Return net of fees	1.6%	3.4%	3.3%	2.7%	2.1%	7.5%	7.5%	7.4%	8.1%	8.0%	10.2%	5.5%	6.9%	6.1%	4.9%	11.0%	6.4%	3.9%	
Expected/Volatility	1.5%	8.5%	8.5%	5.4%	7.5%	19.5%	17.0%	17.1%	19.0%	19.5%	25.0%	12.0%	13.0%	13.0%	8.6%	25.0%	11.5%	4.9%	
<b>Correlations</b>																			
Treasury Bills	1																		
Provincial LT	-0.15	1																	
Overall LT	-0.15	1	1																
Universe Bonds	0	0.9	0.95	1															
Overall RRB	-0.25	0.6	0.6	0.5	1														
Canadian Equity (Large Cap)	-0.1	-0.15	-0.2	-0.3	0.3	1													
US Equity (Large Cap)	-0.25	0	-0.05	-0.2	0.1	0.65	1												
Intl Equity (Large Cap)	-0.1	0	-0.05	-0.1	0.2	0.8	0.8	1											
US Equity (Small Cap)	-0.25	-0.15	-0.2	-0.25	0	0.6	0.9	0.75	1										
Intl Equity (Small Cap)	-0.15	0	0	-0.1	0.2	0.75	0.75	0.95	0.75	1									
Emerging Markets Equity	-0.05	0.05	0	-0.05	0.3	0.85	0.65	0.85	0.6	0.85	1								
Emerging Markets Debts	0.1	0.25	0.25	0.3	0.1	0.15	0.4	0.5	0.4	0.5	0.4	1							
Infrastructure	-0.1	0.25	0.2	0.15	0.45	0.55	0.55	0.7	0.45	0.6	0.6	0.45	1						
Real estate	0.3	0.05	0	-0.15	0.05	0.25	0.3	0.25	0.3	0.15	0.25	0.15	0.35	1					
Hedge Funds	0.1	0.15	0.2	0.2	0.2	-0.1	0.1	0.15	0.05	0.25	0.05	0.5	0.35	0.2	1				
Private Equity	0.15	0.1	0.1	0	0.2	0.15	0.45	0.4	0.4	0.3	0.5	0.65	0.65	0.65	0.65	1			
Timberland / Farmland	0.35	0.2	0.25	0.3	0	-0.6	-0.25	-0.3	-0.3	-0.2	-0.4	0.35	-0.05	0.25	0.65	0.45	1		
Mortgage	0.2	0.7	0.7	0.85	0.25	-0.65	-0.4	-0.35	-0.45	-0.35	0.25	-0.05	-0.2	0.25	0	0.55	0.55	1	

<sup>a</sup> Leverage cost has been modeled by adding 75 bps over the Treasury Bills.

<sup>\*\*</sup> Provincial RRB has been modeled by adding 70 bps over the Overall RRB.

<sup>\*\*\*</sup> Global equities have been modeled using the average of US and International equities.

All figures have been calculated as at December 31, 2012 by Mercer (Canada) Limited. Mercer calculation methodology has been used in the estimation of all expected returns, standard deviations, correlations and probabilities.

The expected returns for the short term and fixed income have been estimated using the current and on equilibrium yield curves; expected returns for equities are calculated based on projected ratios such as Gross Domestic Product (GDP) growth, inflation, forward price to earnings, earnings growth, expected dividend yield etc.

The standard deviations for short term and fixed income are estimated using historical data for the last 10 years and adjusted with a duration model (because duration and standard deviation are dependent on the level of interest rates); standard deviations for equities are estimated using historical data for the last 10 years and adjusted in order to obtain the Capital Asset Pricing Model (CAPM) variables consistent with the assumptions.

All correlations between asset classes are estimated using historical data for the last 10 years adjusted for consistency.

It is assumed that the annual returns of the IPP are log-normally distributed. The use of different assumptions about the expected returns, standard deviations and correlations would produce different estimates of return and risk characteristics.

## Appendix V – Interim IPP

On May 12, 2016 the following table was revised with the revisions taking immediate effect.

Asset Class		Index	Less estimated passive costs (see note 1)	Investment Policy Portfolio
Fixed Income	<b>Nominal</b>	DEX Long-Term Provincial (see note 5)	0.03%	65% less Real Return Bonds
	<b>Real Return</b>	Return of the RRB portfolio including overlay of provincial spread (see note 7)	0.03%	Actual
	<b>Mortgage Loans (see notes 2 and 6)</b>	Mortgage index	-	Actual weight not exceeding 11.5% plus 120% of Mortgage Debt
	<b>Infrastructure Fund Loan Facility</b>	3-month CDOR	-	Actual weight
	<b>Cash</b>	DEX 91 Day T-Bill	0.03%	3%
	<i>Subtotal</i>			<b>Actual weight</b>
Equities	<b>Canadian</b>	S&P/TSX 60	0.03%	6.5%
	<b>US</b>	S&P 500	0.04%	10%
		Russell 2500	0.06%	4%
	<b>Foreign</b>	MSCI EAFE	0.07%	10%
		MSCI EAFE small cap	0.18%	4%
		MSCI Emerging Market (EM)	0.15%	8%
<i>Subtotal</i>			<b>42.5%</b>	
Alternatives	<b>Real Estate</b>	IPD Canadian Annual Property Index	-	Actual weight (gross of leverage)
	<b>Infrastructure</b>	CPI + 5%	-	Actual weight
	<b>Hedge Funds</b>	50% HFR FoF Conservative Index plus 50% HFR FoF Diversified Index	-	10% + (Section 4.2 Target weights to illiquid assets less Actual weight): Subject to 25% maximum (See note 8)
	<b>Emerging Market Debt</b>	JP Morgan EMBI Global Diversified	0.26%	2.5%
		JP Morgan GBI-EM Global Diversified	0.26%	2.5%
<i>Subtotal</i>			<b>Actual weight</b>	
Leverage (see note 3)	<b>Fixed Income</b>	OIS + 0.15%	-	-44% (see note 4)
	<b>Canadian equities</b>	CDOR	-	-6.5%
	<b>US equities</b>	LIBOR + 0.15%	-	-10%
	<b>Mortgage Debt (see note 2)</b>	Mortgage index	-	-(Actual Weight)
	<i>Subtotal</i>			<b>-(60.5% plus Mortgage Debt)</b>
<i>Total</i>				<b>100%</b>

### Notes regarding above table:

Notes 1-7: Notes are in Section 4.2.

Note 8: Illiquid Assets mean for this purpose the Mortgage Loans, Infrastructure Fund Loan Facility, Real Estate and Infrastructure.