Vesuvius Pension Plan (the 'Plan')
Statement of Investment Principles (SIP)
June 2019
(Version 13)

This Statement of Investment Principles is produced to meet the requirements of the Pensions Acts 1995 & 2004, the Occupational Pension Schemes (Investment) Regulations 2005 and to reflect the Government's Voluntary Code of Conduct for Institutional Investment in the UK. The Trustee also complies with the requirements to maintain and take advice on the Statement and with the disclosure requirements.

1. Introduction

1.1 The Vesuvius Pension Plan ("the Plan") is a defined benefits (DB) scheme which operates for the exclusive purpose of providing retirement benefits and death benefits to Plan members and their dependants.

1.2 Members of the Plan were contracted out of the State Second Pension (S2P), formerly the State Earnings Related Pension Scheme (SERPS).

1.3 The Plan is a Registered Pension Scheme under Chapter 2 of Part IV of the Finance Act 2004.

1.4 Administration of the Plan is managed by the Trustee, with day-to-day administrative matters being delegated to the Secretary to the Trustees and to a Third Party Administrator.

1.5 The Trustee has delegated overall investment management responsibilities for the Plan to a Fiduciary Manager (BlackRock) within the remit of a strategy agreed by the Trustee.

1.6 Under the Pensions Act 1995, the Trustee is required to prepare a statement of principles governing investment decisions. This document fulfils that requirement.

1.7 The Trustee has consulted the Principal Employer on this document and will consult the Principal Employer (and such other participating employers as may be required) on subsequent changes in its investment principles. However, the ultimate power and responsibility for the investment of the Plan's assets lies solely with the Trustee. In preparing this document the Trustee has had regard to the requirements of the Pensions Act concerning diversification of investments and suitability of investments taking into consideration the criteria for investment set out in the Occupational Pension Schemes (Investment) Regulations 2005. The Trustee will consider those requirements on any review of this document or any change in its investment policy.

1.8 In drawing up this document, the Trustee has sought advice from the Plan's Investment Advisor (BlackRock) and the Scheme Actuary (David Hunt of Aon Hewitt). A copy of this document has been provided to the Fiduciary Manager for onward communication to Investment Manager(s) as appropriate. The Trustee will review this document annually or after any significant change in investment policy.

1.9 This SIP replaces all earlier versions of the document.

1.10 In this document:

1.10.1 "Sponsoring Employer" means Vesuvius Holdings Limited. "Investment Manager(s)" refers to those responsible for segments of underlying investments of the Fund.

1.10.2 "Fund" refers to the total investments of the Plan.

Additional Voluntary Contributions (AVCs)

The Plan's AVC arrangements are now closed to new contributions. However the trustee offers investment alternatives as follows for all AVC investments:

- Equitable Life
- Prudential Assurance Company Limited
- Zurich Assurance
- Standard Life (ex-Foseco Members)

The Trustees review these investments from time to time with the Investment Advisor and also with Premier Benefits Solutions, an FSA regulated advisor. The Trustees believe that these investments provide members with the appropriate range of investment opportunities given the membership, the level of investment and the fact that the arrangement is closed to new investments. Some investments are retained for historic purposes.

2. Investment Principles

Investment Objectives

2.1 The Trustee aims to invest the assets of the Plan prudently to ensure, as far as possible, that the benefits promised to members are provided. The asset allocation strategy it has selected is designed to achieve a return consistent with and greater than that assumed by the Scheme Actuary in the 2015 Valuation while maintaining a prudent approach to meeting the Plan's liabilities.

In choosing this overall objective, the Trustee recognises the level of risk compared to the liabilities that accompanies the outperformance target.

These objectives have been set in consultation with the Sponsoring Employer and in light of the assessment of the Employer Covenant, ability to pay and the Employers ability to withstand poor investment returns in the future.

The performance objectives of the Plan are a) to achieve long term growth of the Plan relative to its liabilities with an acceptable amount of risk and (b) to outperform the relevant benchmarks taking into account the investment restrictions as defined in the Investment Management Agreement and which is reviewed on an annual basis.

Investment Strategy - General

2.2 The Trustee will agree an Investment Strategy, reviewed each year, to meet the Investment Objective. This will be prepared by the Fiduciary Manager in consultation with the Investment Committee (which consists of representatives of the Trustee and the Principal Employer).

Previous versions of the SIP recognised that increasing maturity of the Plan's ongoing DB liabilities was likely, in due course, to result in an increasing proportion of the Plan's assets being invested in liability matching assets. This has been realised in the completion of a buy-in of the Plan's Pensioner Liabilities and subsequent annual buy-ins of new pensioners until 2018.

Risk tolerances will take account of the funding position and the covenant of the Principal Employer.

Asset classes which are appropriate for the Plan will be selected to set target allocations and ranges within which the Fiduciary Manager will manage.

The strategy will diversify assets across asset types, Investment Managers, geography and sectors to achieve a reasonable level of diversification to reduce risk.

Financial Services Act

2.3 The Fiduciary Manager is authorised under the Financial Services & Markets Act 2000 and provides the expertise necessary to manage the allocation of the Plan's assets competently. In accordance with the Financial Services and Markets Act 2000, the Trustee will determine the investment strategy and the strategic asset allocation, but will delegate day-to-day responsibility for the management of the assets to the Fiduciary Manager. The Fiduciary Manager will then manage the underlying Investment Managers with selection and de-selection being done in consultation with the Trustee. The Investment Managers shall provide the skill and expertise necessary to manage the investments of the Plan competently.

2.4 The Fiduciary Manager confirms that it will manage the Fund in accordance with sections 36(1) and 36(5) of the Pensions Act 1995, subject to the limitations on the discretion given to the Fiduciary Manager by the Trustee. For the purposes of section 36 of the Pensions Act 1995, the Fiduciary Manager will exercise its powers of investment with a view to giving effect to the principles contained in this document and any subsequent amendments.

Trust Deed

2.5 No asset categories are specifically excluded, for the Plan as a whole, by the Trust Deed. However the Investment Manager will use all reasonable endeavours not to invest directly in securities of Vesuvius plc or any of its subsidiary companies excepting that Vesuvius has made a gift of shares in an Indian subsidiary to the Trustees which they hold at their own discretion and will manage on a discretionary basis.

2.6 The Trustee is permitted by the Trust Deed to borrow money. The Trustee Directors do not intend to make use of this provision on a regular basis and any proposal to borrow money will require the approval of the Trustee Directors.

Benchmark, permitted assets and ranges

2.7 The Trustees elected to purchase a buy-in contract with Pension Insurance Corporation Limited (PIC and the "Contract"). Responsibility for this investment is separate from the Fiduciary Mandate although the Contract is considered by the Fiduciary Manager and the Trustee in assessing the appropriate strategy, benchmarks and investment ranges.

The table below shows the strategic asset allocation and strategic benchmarks for the assets that remain with the Fiduciary Manager which has been designed to meet the objectives. The strategic asset allocation and benchmarks will be reviewed annually, however, due to the fluctuating nature of markets, changes may also be made throughout the year by the Trustee.

Vesuvius Pension Plan Asset Allocation

Fund Strategy	Benchmark index	Target Strategy Allocation Weight* (%)	Permitted Active Ranges**	
			Minimum (%)	Maximum (%)
Growth Strategies		**50**	**40**	**60**
Liquid Assets Strategy	*See Liquid Assets Benchmark Table below*	*n/a*		
*Illiquid Assets Strategy****	*See Illiquid Assets Benchmark Table below*	*n/a*		
Overlay Strategies		**50**	**40**	**60**
Liability Hedging Strategy	*Benchmark = Actual*	*n/a*		

* Percentage of total Fund.
** Active ranges are defined as a percentage of total Fund assets by market value.
*** BlackRock will not make changes to the weights of Illiquid Assets held in the Fund.

Liquid Assets Benchmark Table

Asset Class	Benchmark index	Liquid Assets Benchmark Weight* (%)	Active Ranges** (%)
UK Equities	FTSE All Share Total Return Index	1.0	+/-5
Global Developed Equities ex UK, Hedged	FTSE All World Developed ex UK Index hedged to GBP	21.0	+/-5
UK Credit	IBoxx Sterling Corporate Bond Index - Customised***	78.0	+/-5
TOTAL		100.0	

* Percentage of Liquid Assets Strategy assets by market value.
** Active ranges are defined relative to the evolved Liquid Assets Benchmark Weight. Minimum weight of 0% and maximum weight of 100% for all components unless stated otherwise.
*** This benchmark is screened / adjusted in the following ways: Issuers capped at 2% of index; Tier 1 and Upper Tier 2 financials & their US equivalent excluded.

Illiquid Assets Benchmark Table

Asset class	Benchmark Index	Illiquid Asset Benchmark Weight (%)
Property	IPD-All-Balanced Fund Weighted Average Index	n/a (Actual)
Infrastructure	n/a (Actual)	n/a (Actual)
Non-Discretionary Indian Investment	n/a (Actual)	n/a (Actual)

The **Liability Hedging Strategy** targets an Interest Rate Hedge Ratio of 100% and an Inflation Hedge Ratio of 100% relative to the Scheme's Liability Cashflows.

The Trustee is using derivative instruments such as swaps and financial futures to mitigate inflation and interest rate risk and can also use derivative instruments to mitigate currency and equity market risk, for which the Trust Deed has been suitably amended. This acts as an overlay to the assets shown in the tables above.

Determination of Strategy and Benchmarks

The strategic benchmark and the corresponding strategy were determined with regard to the actuarial characteristics of the Plan, in particular the strength of the funding position and the liability profile. The Trustee assumes that equities will outperform gilts over the long term and that active fund management, in some asset classes, can be expected to add net value. However, the Trustee recognises the potential volatility in equity returns, particularly relative to the Plan's liabilities, and the risk that the Investment Manager do not achieve the targets set. When choosing the Plan's asset allocation strategy the Trustee considered written advice from its Fiduciary Manager and, in doing so, addressed the following:

- The need to consider a full range of asset classes.
- The risks and rewards of a range of alternative asset allocation strategies.
- The suitability of each asset class.
- The need for appropriate diversification.

Expected Return on Investments

Given the investment strategy outlined above the Trustee expects to achieve a return above the liabilities of 0.9% according to BlackRock's long-term assumptions (as at June 2018).

Regulatory Requirements

2.8 The assets shall consist predominantly of investments traded on regulated markets and investment in assets which are not traded on such markets shall be kept to a prudent level.

2.9 Assets shall be properly diversified in such a way as to avoid excessive reliance on any particular asset, issuer or group of undertakings and so as to avoid accumulations of risk in the portfolio as a whole. Investments in assets issued by the same issuer or by issuers belonging to the same group shall not expose the Plan to excessive risk concentration.

2.10 Investment in derivative instruments will be made only if they contribute to a reduction of risks, facilitate efficient portfolio management (including the reduction of cost or the generation of additional capital or income with an acceptable level of risk) or as a method of implementing any liability matching strategy. Any such investments must be made and managed so as to avoid excessive risk exposure to a single counterparty and to other derivative operations.

2.11 The Trustee or Investment Managers will not borrow money or act as guarantor for the purpose of providing liquidity.

Responsible Investing

2.12 The Trustee recognises that ESG risks could impact the ability of the Scheme to meet its investment objectives and therefore the Trustee has considered how to evaluate and manage these risks when setting its investment strategy as set out in the following paragraphs (along with other matters).

2.13 The Trustee will ensure that the Scheme's Fiduciary Manager shall, alongside other investment risks, integrate consideration of ESG risks throughout its investment decision making processes,

2.14 The Trustee will request that:

- the Fiduciary Manager, as part of its due diligence, assesses the approach of all the Scheme's investment managers in integrating ESG risks considerations into the selection, retention and realisation of investments, before appointing them;

- the Fiduciary Manager, as part of its ongoing monitoring, will review the adherence of the Scheme's investment managers to their ESG principles and, on at least a quarterly basis, will report on key ESG metrics for the Scheme's investment managers and aggregate these to portfolio level where appropriate;

- the Fiduciary Manager, as part of its ongoing monitoring, reviews the execution of voting and engagement responsibilities and periodically reports back its findings to the Trustee (for example where the Scheme invests in pooled funds, the Scheme's investment managers are responsible for exercising voting rights and reporting on how they have exercised those rights); and

- where UK-domiciled investment managers are not signatories to the FRC's UK Stewardship Code, the Fiduciary Manager shall consider the investment manager's rationale for this position and, where appropriate, report back its findings to the Trustee.

Benchmark Rebalancing Policy

(i) Strategic Benchmark
For the purposes of rebalancing and for performance assessment, the asset classes have been divided into Liquid Assets and Illiquid Assets.

The Liquid portfolio benchmarks will drift in line with market movements over a twelve-month period and be rebalanced back to the Liquid weights shown above at the last day of July.

The Illiquid Weights benchmark weights will not be rebalanced. This reflects the nature of the asset classes held.

(ii) Permitted Ranges:
The Fund will be invested in accordance with the ranges set out above.

Currency

2.15 The base currency for the Plan is Sterling.

Investment Restrictions

2.16 Voting
Investment Managers may at their discretion, except when otherwise directed by the Trustee, exercise or procure the exercise of any voting rights or other powers and discretions conferred on the registered holder or the beneficial owner of any securities in the Fund. Notwithstanding the preceding sentence, the Fiduciary Manager may not procure the exercise of any voting rights attaching to the Fund holdings of In-House Funds (ie those managed by the Fiduciary Manager) except with the agreement or on the specific instructions of the Trustee but may count such holdings for the purpose of constituting a quorum at a general meeting of any In-House Fund.

2.17 Collective Investment Schemes and other Comingled Funds
Investment in collective investment schemes and other comingled funds (including limited liability partnerships) is permitted, including the Fiduciary Manger's In-House Funds.

2.18 Derivatives
Investment Manager(s) may deal in derivatives (options, futures, contracts for differences and forwards). This includes dealing in derivatives not traded on or under the rules of a recognised or designated investment exchange (i.e. an over-the-counter (OTC) derivatives transaction).

2.19 Supplementing the Fund
Where the Trustee supplements the assets of the Fund by the transfer of additional cash ("New Cash") the Investment Manager may place deals before the Outside Custodian has notified it of receipt into the Fund of the New Cash. In the event that the Fund is not credited with the New Cash in sufficient time to settle the deals that the Investment Manager has placed, the Investment Manager may overdraw the bank accounts held with the Outside Custodian in order to provide sufficient monies to settle the deals on their due settlement dates.

The Investment Manager may, for settlement purposes and on a temporary basis only, without prior reference to the Trustee, enter into a transaction on the Trustee's behalf which may result in the Investment Manager having to arrange to borrow money for the Trustee.

2.20 Deposits
The Trustee consents to money market deposits being made with those approved banks which meet the Fiduciary Manager's criteria for such deposit takers from time to time. With regard to parts of the Fund managed on a segregated basis by a manager who is not a member of the BlackRock Group, deposit takers approved by such manager are permitted.

2.21 Stocklending
Investment Manager(s) will not engage in stocklending except in the case of pooled funds, where client interests cannot be separated, but the manager must obtain indemnity from the Custodian and all loans should be collateralised in full.

2.22 Liquidity
When setting strategy the Trustee has regard to ensuring that there is sufficient liquidity to meet any immediate payments. Sufficient assets are held that are broadly liquid and sufficient to cover any foreseeable requirements either through income generation or through the sale of readily realisable assets such as bonds or equities.

3 Governance

Trustee Directors

3.1 In respect of the investment of the Plan's assets, the Trustee Directors are responsible for:

a. Reviewing annually the Statement of Investment Principles and modifying it if appropriate

b. Appointing (and when necessary, dismissing) the Fiduciary Manager

c. Conducting strategic investment reviews and agreeing the investment strategy

d. Appointing (and, when necessary, dismissing) the firm or firms with responsibilities for the custody of the Plan's assets ("the Custodians") including monitoring their security and efficiency

e. Assessing the quality of the performance and processes of the Fiduciary Manager and agreeing such changes as are deemed necessary

f. Assessing the performance of the senior staff working for the Fiduciary Manager and agreeing such changes as are deemed necessary

g. Consulting with the employer when reviewing investment principles

h. Monitoring the success of the Trustee in achieving the Plan objectives

i. Monitoring the performance of advisors to the Trustee

Fiduciary Manager and Investment Advisor

3.2 The Fiduciary Manager whose role encompasses Investment Advisor is responsible for:

a. Developing a revised strategy on an annual basis ('Annual Investment Plan') in conjunction with the Trustee resulting in a Strategic Benchmark.

b. Ongoing investment strategy and advice.

c. Implementing, within guidelines given by the Trustee in the Investment Strategy, changes in the asset mix, selecting/ deselecting managers for each asset class and transition management.

d. Providing the Trustee with quarterly statements of the assets, individual and overall fund performances, cashflows, risk position, asset/liability ratio (based on the BlackRock LDI cashflow modeller) and corporate actions together with a quarterly report on their actions and future intentions, and any changes to the processes applied to their portfolios.

e: Management of Plan cash flow and liquidity requirements with the minimum disruption to ongoing investments.

f. Instructing the Custodians in respect of any corporate governance activity in accordance with the Trustee's guidelines in the Fiduciary Management Agreement.

g: Liaising with the Custodian and reconciliation of trading and accounting information for the Fund.

h. Informing the Trustee of any significant personnel changes in relation to the Plan.

i. Commenting on the Trustee's Statement of Investment Principles on request and informing the Trustee of any non-compliance with the terms of this Statement of Investment Principles.

j: Trustee training and education on investment related issues.

The Annual Investment Plan shall at least include:

- Risk return targets against liabilities
- A set of definitions and a process to cover the agreed objectives.
- Strategic asset allocation and weights
- The relevant benchmarks
- The rebalancing and liquidity policies
- Policies for the illiquid part of the Plan
- Procedures for variation of investment guidelines and changes of the Strategic benchmark.

Investment Managers(s)

3.3 Investment Manager(s) of the assets are responsible for:

a. investment of funds as instructed by the Fiduciary Manager

b. Provision of information required by the Fiduciary Manager for the proper management of the assets.

General Partners of Limited Partnerships

3.4 The General Partners of limited partnerships, which invest the Infrastructure and Hedge Fund of Funds assets are responsible for:

a. investment at their discretion, but within the terms of the partnership agreements, in various infrastructure or hedge fund opportunities

b. Providing the Fiduciary Manager with quarterly statements of the assets and cash flows

c. Informing the Fiduciary Manager of any significant personnel changes

Custodians

3.5 The Custodians are responsible for:

a. The safekeeping of those assets of the Plan for which they have been given responsibility and the issues which this covers

b. Providing all appropriate administration relating to the Plan's assets

c. Processing all dividends and any tax reclaims in a timely manner

d. Investing cash in a manner consistent with the Trustee's guidelines in the Fiduciary Management Agreement
e. Notifying the Trustee, Fiduciary Manager and the relevant authorities when the Plan's aggregate holdings exceed disclosable amounts
f. Dealing with corporate actions
g. Calculating the overall performance of the Plan and reporting this to the Trustee after resolving any discrepancies with the Fiduciary Manager

4 Risk Management

The Fiduciary Manager operates a comprehensive risk monitoring and management process. This is updated regularly and covers the Plan's risks in asset allocation, and also the risks run by individual managers against their benchmarks. The Fiduciary Manager reports these risks formally to the Trustee on a quarterly basis when the positions are reviewed by the Investment Committee.

The strategy is to focus on risks which are expected to be rewarded, and to minimise risks which are expected to be unrewarded, as much as is practicable. The Trustee recognises that a number of risks are involved in the investment of the Plan's assets as discussed below.

4.1 Manager Risk
The Trustee's policy is to diversify the assets across a sufficient and practical number of Investment Managers. All are recognised within the fund management industry as highly competent in their respective areas, and due diligence has been applied in each case. For the Fiduciary Manager (BlackRock) the due diligence was particularly thorough.

4.2 Political and Solvency Risk
The Fund is invested across geographies, asset classes and sectors sufficiently to provide acceptable diversification.

4.3 Liquidity Risk
The Trustee and the Fiduciary Manager monitor the cash requirements on a regular basis and the level of illiquid assets is held at a low level, as set out in the Strategic Benchmark table in Section 2.7.

4.4 Custodian Risk
The global Custodian is JP Morgan. The Trustee conducted detailed due diligence in appointing JP Morgan as the global custodian. For pooled funds the Trustee has no choice in the custodian used. In addition direct investments are held by the custodian Karibu.

4.5 Sponsor Risk
The Trustee receives regular reports of the sponsor's financial and operational position. This is borne in mind when setting the contribution levels and the target risk return upon which the strategy is based.

5 Direct Investments

The Pensions Act 1995 distinguishes between investments where the management is delegated to a fund manager with a written contract and those where a product is purchased directly, e.g. the purchase of an insurance policy or units in a pooled vehicle.

The Trustee's policy is to review its direct investments and to obtain written advice about them at regular intervals. When deciding whether or not to make any new direct investments the Trustee will obtain advice and consider whether future decisions about those investments should be delegated to the Fiduciary Manager.

BlackRock advise on the direct investments, including those with Macquarie, and UBP.

6 Fees

The Fiduciary Manager is paid on the basis detailed in the Manager Agreement. This consists of a combination of fixed fees determined as a percentage of the Fund under management. The Trustee believes that this combination provides the right balance between fair remuneration for the services provided and a share of the risks and reward from successful management of the assets.

7 The Myners' Review 2002

The Vesuvius Pension Plan aims to comply with all of the Myners' Principles, recognising it is in all parties' interests if the Plan operates to standards of investment decision-making and governance identified as best practice. Compliance is monitored regularly, the most recent review being in June 2013.

8 Conclusion

The Trustee expects the Fiduciary Manager and the Investment Managers to manage the assets delegated to them under the terms of their contract and to give effect to the principles in this statement so far as is reasonably practicable.

The Trustee will review this SIP annually and immediately following any significant change in investment policy. The Trustee will take investment advice and consult with the Sponsoring Employer over any changes to the SIP.

Declaration

The Trustee confirms that this Statement of Investment Principles reflects the Investment Strategy it has implemented for the Plan. The Trustee acknowledges that it is its responsibility, with guidance from the Investment Advisor, to ensure the assets of the Plan are invested in accordance with these principles

/s/ Rachel Fell	/s/ Amy Lummis
Trustee Director	Trustee Director
Date: ......30/9/19.........	Date: ....30/9/19..........

Appendix

Trustee Directors and Advisors

Trustee Directors

CCPTL represented by Allan Course   Amy Lummis
Rachel Fell   Michael Satterthwaite
Paul Read   Ellen Brown
*CCPTL – Capital Cranfield Pension Trustees Limited

Secretary to the Trustee

Premier Pensions Management represented by David Jarman

Fiduciary Manager

BlackRock Investment Management (UK) Limited

Investment Managers and General Partners of Limited Partnerships

BlackRock Investment Managers
Macquarie Investment Management (UK) Limited
Aberdeen Asset Management
Blackstone Partners
UBP Hedge Fund Services (Cayman) Limited

Custodians

J.P. Morgan
Karibu Ltd

Scheme Actuary

Aon Hewitt – David Hunt

Scheme Auditor

Nexia Smith & Williamson Audit Limited

Legal Advisor

Linklaters LLP