



# Nottinghamshire Pension Fund Climate-related Disclosures

*Report prepared in alignment with the recommendations of the TCFD*



**November 2023**

## Introduction to the TCFD

The Taskforce on Climate-related Financial Disclosures (TCFD) was commissioned in 2015 by Mark Carney in his remit as Chair of the Financial Stability Board. In 2017 the TCFD released its recommendations for improved transparency by companies, asset managers, asset owners, banks, and insurance companies with respect to how climate-related risks and opportunities are being managed. Official supporters of the TCFD exceed 4,000 organisations representing a market capitalisation of over \$27 trillion. Disclosure that aligns with the TCFD recommendations currently represents best practice.

The recommendations are based on the financial materiality of climate change. The four elements of recommended disclosures (see Figure 1 below) are designed so as to make TCFD-aligned disclosures comparable, but with sufficient flexibility to account for local circumstances. Examples of pension funds that were early adopters of the TCFD recommendations include AP2, NEST, PGGM, RPMI Railpen, The Pensions Trust, and Environment Agency Pension Fund.

In September 2022, the Department of Levelling Up, Housing and Communities (DLUHC) released a consultation document, seeking views on proposals for LGPS Administering Authorities (AAs) to manage and report on climate risks in line with TCFD. While this policy is still in the consultation stage, we expect these requirements to be formally adopted by DLHUC in 2024.

**Figure 1: TCFD Disclosure Pillars**



The Fund supports the TCFD recommendations as the optimal framework to describe and communicate the steps the Fund is taking to manage climate-related risks and incorporate climate risk management into investment processes. As a pension fund, we are long-term investors and are diversified across asset classes, regions and sectors, making us “universal owners”. It is in our interest that the market is able to effectively price climate-related risks and that policymakers are able to address market failure. We believe TCFD-aligned disclosure from asset owners, asset managers, and corporates, is in the best interest of our beneficiaries.

## **About this report**

This report is Nottinghamshire Pension Fund's (NPF or 'the Fund') fourth climate-related disclosure report. It describes the way in which climate-related risks are currently managed within the Fund.

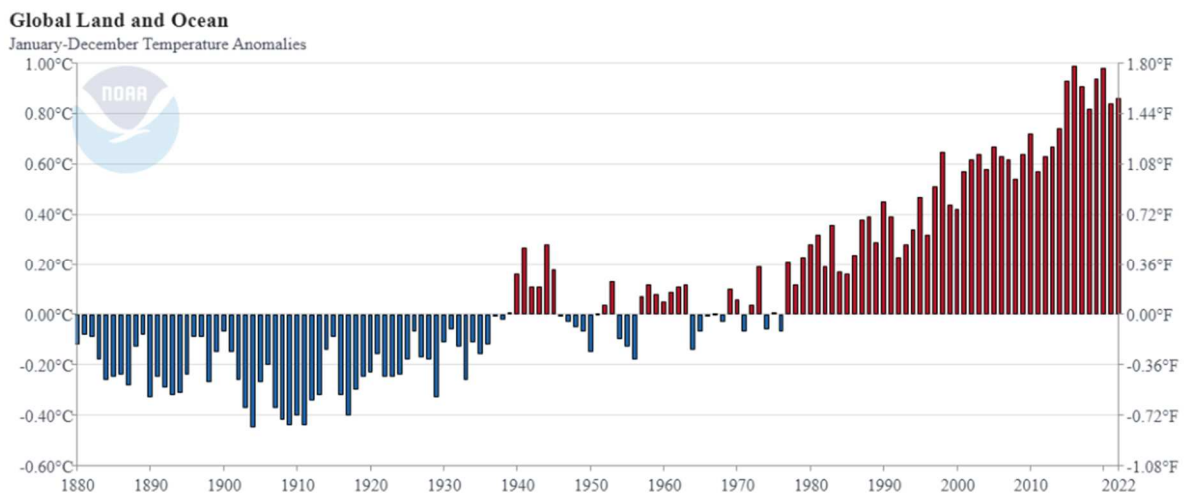
Since October 2020, NPF has received four Climate Risk Reports from the Fund's pooling company, LGPS Central Ltd. These reports provide an in-depth review of the Fund's climate risks under different climate change scenarios across all asset classes. The Fund uses the findings of these reports to inform the Climate Strategy.

In the interests of being transparent with the Fund's beneficiaries and broader stakeholder base, the most recent report discloses the most recent Carbon Risk Metrics Analysis and includes a gap analysis of the Fund's policies and disclosures relating to the four pillars of the TCFD. We expect to update our Carbon Risk Metrics on an annual basis.

## Climate-related risks

Human activities are estimated to have caused approximately 1.1°C of global warming above pre-industrial levels.<sup>1</sup> Most of this warming has occurred in the past 35 years, with each of the ten warmest years between 1880 and 2022 taking place over the last 12 years.<sup>2</sup> The overwhelming scientific consensus is that the observed climatic changes are the result primarily of human activities including electricity and heat production, agriculture and land-use change, industry, and transport.

**Figure 2: Global Land and Ocean Annual Temperature Anomalies (1880-2022)** <sup>3</sup>



In order to mitigate the worst economic impacts of climate change, there must be a large, swift, and globally co-ordinated policy response. Despite this, the majority of climate scientists anticipate that given the current level of climate action, by 2100 the world will be between 2°C and 4°C warmer, with significant regional variations. This is substantially higher than the Paris Climate Change Agreement, which reflects a collective goal to hold the increase in the climate’s mean global surface temperature to well below 2°C above preindustrial levels and to pursue efforts to limit the temperature increase to 1.5°C.

<sup>1</sup> [IPCC AR6 SYR SPM.pdf](#)

<sup>2</sup> [Annual 2022 Global Climate Report | National Centers for Environmental Information \(NCEI\) \(noaa.gov\)](#)

<sup>3</sup> [Annual 2022 Global Climate Report | National Centers for Environmental Information \(NCEI\) \(noaa.gov\)](#)

## Governance

### TCFD Recommended Disclosure

#### **a) Describe the board's oversight of climate-related risks and opportunities**

Roles and responsibilities at the Fund are set out clearly in the Fund's *Governance Compliance Statement*. Overall responsibility for managing the Fund lies with Nottinghamshire County Council which has delegated the management and administration of the Fund to the Nottinghamshire Pension Fund Committee.

The Nottinghamshire Pension Fund Committee ("the Committee") is responsible for preparing the Investment Strategy Statement (ISS) and Climate Strategy. The ISS includes the Fund's approach to responsible investment and recognises climate change as a factor that could have a serious impact on financial markets. The Climate Strategy is premised on 10 foundational evidence-based beliefs about climate risk, considering climate science, the energy transition, and climate stewardship. The Climate Change Strategy is reviewed on an annual basis. The Committee meets eight times a year, and reports from an Independent Adviser (which include advice on the Fund's approach to Responsible Investment) are received regularly.

As per the Climate Strategy, the Fund is committed to providing decision-makers with appropriate training, including specialised training on climate change.

The Local Pensions Board has an oversight role in ensuring the effective and efficient governance and administration of the Fund, including securing compliance with LGPS Regulations and any other legislation relating to the governance and administration of the Scheme.

### TCFD Recommended Disclosure

#### **b) Describe management's role in assessing and managing climate-related risks and opportunities.**

The Service Director for Finance, Infrastructure and Improvement, Group Manager Financial Services and Senior Accountant Pensions and Treasury Management have primary day-to-day responsibility for the way in which climate-related investment risks are currently managed. Where appropriate, the Fund's pooling company, LGPS Central Ltd, assists in assessing and managing climate-related risks.

As detailed in the Climate Strategy, the Fund leverages partnerships and initiatives – including the Institutional Investors Group on Climate Change (IIGCC) – to identify and manage climate risk. The Service Director for Finance, Infrastructure and Improvement, the Group Manager Financial Services, and the Senior Accountant Pensions and Treasury Management are accountable to the Committee for delivery of the Climate Strategy.



As a primarily externally managed fund, the implementation of much of the management of climate-related risk is delegated onwards to portfolio managers. External portfolio managers are monitored on a regular basis by the Nottinghamshire Pension Fund Committee.

Since 2020 the Fund Officers have received an annual Climate Risk Report, which allows a view of climate risk throughout its total equities and fixed income portfolios, and identify further means for the Fund to manage its material climate risks.

## Strategy

### TCFD Recommended Disclosure

**a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.**

As a diversified asset owner, the range of climate-related risks and opportunities are multifarious and constantly evolving. A subset of risk factors is presented in Table 1.

**Table 1: Example Short, Medium & Long-Term Risks**

Risk	Transition / Physical	Time Horizon	Impact Area	Mitigation / Management Strategy
<b>Policy Changes (Including Carbon Pricing)</b>	Transition	Short Medium Long	Across investments and funding  Investments in carbon-intensive industries  Operational	<ul style="list-style-type: none"> <li>• Monitor potential regulatory changes (domestic and international)</li> <li>• Monitor managers' preparedness and awareness of changing carbon prices across relevant markets</li> <li>• Consider impact of likely policy changes in strategic decisions</li> </ul>
<b>Technological Change</b>	Transition	Short Medium Long	Across Asset Classes	<ul style="list-style-type: none"> <li>• Monitor potential technology disruptors</li> <li>• Monitor manager awareness of emerging and disruptive technologies</li> <li>• Consider impact of these changes in strategic decisions</li> </ul>
<b>Extreme Weather Events</b>	Physical	Short Medium Long	Physical Assets  Corporate Holdings	<ul style="list-style-type: none"> <li>• Carry out scenario analyses on various climate scenarios to assess impact</li> <li>• Monitor portfolio company's assessments of extreme weather impacts on their operations</li> </ul>
<b>Resource Scarcity</b>	Physical	Medium Long	Physical Assets	<ul style="list-style-type: none"> <li>• Monitor manager awareness of resource scarcity</li> <li>• Special consideration to agricultural holdings</li> </ul>

Short-term risks include stock price movements resulting from increased regulation to address climate change. Medium-term risks include policy and technology leading to changes in consumer behaviour and therefore purchasing decisions – the uptake in electric vehicles is an example of this.

Long-term risks include physical damages to real assets and resource availability. Examples would include increased sea level rise for coastal infrastructure assets or supply chain impacts for companies as a result of severe weather events.

#### TCFD Recommended Disclosure

**b) Describe the impact of climate-related risks and opportunities on the organisation's business, strategy and financial planning.**

Although the Fund is diversified across asset classes, regions, and sectors, it is recognised that climate risk is systemic and is unlikely to be eliminated through diversification alone.

The Fund's Climate Change Strategy sets out the Fund's approach to managing the impact of climate-related risks. The main management techniques within investment strategy are: measurement and observation; policy review; asset allocation; selection and due diligence; purposeful stewardship; and transparency and disclosure.

The Fund is exploring options to further embed climate-related risks and opportunities into its investment strategy, including reviewing potential investments in sustainable asset classes where this supports the Fund's investment and funding objectives.

#### TCFD Recommended Disclosure

**c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.**

In 2020 and 2022, the Fund engaged the expertise of an external contractor, Mercer LLC, to understand the extent to which the Fund's risk and return characteristics could come to be affected by a set of plausible climate scenarios. This includes an estimation of the annual climate-related impact on returns (at the fund and asset-class level). All asset classes are included in this analysis. The climate scenarios considered are Rapid Transition, Orderly Transition and Failed Transition. This analysis is carried out every 2 to 3 years and a summary of the results of the 2022 analysis are provided below.

The scenarios are defined according to the change since pre-industrial times in mean global surface temperatures. The Rapid Transition scenario is characterised by sudden divestments in 2025 to align portfolios to the Paris Agreement goals. The Orderly Transition scenario represents an early and smooth transition, with the markets pricing-in dynamics occurring gradually over four years. A Failed Transition scenario represents a scenario in which society makes no attempt to limit global warming, with severe physical and extreme weather events and the markets pricing in these risks.

The analysis showed that over medium- to long-term, a successful transition is imperative for the Fund as its asset allocation fares better under Rapid and Orderly transition scenarios versus the Failed transition. Over the long term for nearly all investors a successful transition leads to enhanced projected returns when compared to scenarios associated with higher temperature outcomes due to lower physical damages.

The analysis concluded with several key recommendations, including: The Fund continues its net zero trajectory. The Fund should explore allocations to sustainable/low carbon assets to mitigate



potential transition impacts in the short and medium term. Finally, the Fund works with their appointed fund managers to understand how they assess and monitor climate risk.

It should be noted here that translating Climate Scenario Analysis into an investment strategy is a challenge for several reasons. Firstly, there is a wide range of plausible climate scenarios with significantly different and far-reaching consequences. Secondly, the probability of any given scenario is hard to determine, and especially so when considering longer time horizons. Finally, the best performing sectors and asset classes in an orderly scenario tend to be the worst performers in a failed scenario and vice versa. This makes categorical strategic recommendations particularly challenging. Despite the challenges, the Fund believes in seeking out the best available climate-related research in order to make its portfolio as robust as possible.

## Risk Management

### TCFD Recommended Disclosure

#### **a) Describe the organisation's process for identifying and assessing climate-related risks.**

The Fund seeks to identify and assesses climate-related risks at the total fund level and the individual asset level. The Fund's Climate Risk Reports from 2020-2022 include a combination of both top-down and bottom-up analyses.<sup>4</sup> The Fund recognises that the tools and techniques for assessing climate-related risks in investment portfolios are an imperfect but evolving discipline. The Fund aims to use the best available information to assess climate-related threats to investment performance.

As far as possible climate risks are assessed in units of investment return, in order to compare with other investment risk factors.

As a primarily externally-managed pension fund, the identification and assessment of climate-related risks is also the responsibility of individual fund managers appointed by the Fund. Existing fund managers are monitored on a regular basis.

Engagement activity is conducted with investee companies through selected stewardship partners including LGPS Central, EOS at Federated Hermes, and LAPFF (see below). Based on the findings of its Climate Risk Report, the Fund has devised a Climate Stewardship Plan in order to focus engagement resources on the investments most relevant to the Fund's climate risk.

### TCFD Recommended Disclosure

#### **b) Describe the organisation's process for managing climate-related risks.**

The Fund manages climate risk in different ways according to the nature, duration, magnitude and time horizon of the risk itself. As set out in the Fund's Climate Strategy, the main management techniques are: measurement and observation; policy review; asset allocation; selection and due diligence; purposeful stewardship; and transparency and disclosure.

Engagement and shareholder voting are an important aspect of the Fund's approach to managing climate risk. The Fund expects all investee companies to manage material risks, including climate change, and the Fund believes that climate risk management can be meaningfully improved through focussed stewardship activities by investors.

The Fund supports the engagement objectives of the Climate Action 100+ initiative, whereby companies adopt the appropriate governance structures to effectively manage climate risk, decarbonise in line with the Paris Agreement, and disclose effectively using the TCFD recommendations. In September 2020, CA100+ introduced a Benchmark Framework which identifies ten key indicators of success for business alignment with a net zero emissions future and goals of the Paris Agreement. In 2022 the organisation announced the launch of its Phase 2 strategy, and in 2023




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<sup>4</sup> Climate Scenario Analysis is only included in the 2020 and 2022 Climate Risk Reports.

it announced the launch of its new Net Zero Benchmark. The organisation’s focus has now shifted from analysis of company targets and commitments to analysis of company progress towards decarbonisation.

Either through its own membership or through LGPS Central’s membership, the Fund has several engagement partners that engage investee companies on climate risk which are described in the following table.

**Table 2: The Fund’s Stewardship Partners**

Organisation	Remit
	<p>The Fund is a 1/8<sup>th</sup> owner of LGPS Central.</p> <p>Climate change is one of LGPS Central’s stewardship themes, with quarterly progress reporting available on the website.</p> <p>The Responsible Investment Team at LGPS Central engages companies on NPF’s behalf, including via the Climate Action 100+ initiative.</p>
	<p>EOS at Federated Hermes is engaged by LGPS Central to expand the scope of the engagement programme, especially to reach non-UK companies.</p>
	<p>NPF is a long-standing member of the Local Authority Pension Fund Forum (LAPFF). LAPFF conducts engagements with companies on behalf of local authority pension funds.</p>

The instruction of shareholder voting opportunities is an important part of climate stewardship. The Fund delegates responsibility for voting to LGPS Central for all directly held securities, or the Fund’s directly appointed investment managers for investments held in funds. For directly held securities, votes are cast in accordance with LGPS Central’s *Voting Principles*, to which the Fund contributes during the annual review process. LGPS Central’s *Voting Principles* incorporate climate change, for example by voting against companies that do not meet certain thresholds in the Transition Pathway Initiative (TPI) scoring system.

The Fund reports quarterly on its voting activities. These reports are publicly available on the Pension Fund website. In addition, LGPS Central reports quarterly on its voting and engagement activities. These reports are publicly available via the LGPS Central website.

Based on the findings of the Fund’s Climate Metric Analyses, the Fund is able to identify the 10 largest contributors to its overall carbon footprint. The Fund can use this information to inform investment and engagement decisions, although it is important to recognise that carbon figures alone should be accompanied by a contextual awareness of the company’s approach to decarbonisation and net zero. For example, consider SSE a UK based electric utilities company. The company is one of the portfolio’s top emitters. However, the company has demonstrated aggressive green power expansion targets and implemented science-based targets.

**Table 3: Top 10 largest emitters from NPF's Total Equity portfolio**

Issuer	PF Weight	% Financed Emission	Contribution to FE Rank	% WACI	Contribution to WACI Rank
SHELL PLC	2.00%	18.70%	1	7.30%	1
BP P.L.C.	1.00%	4.00%	3	1.50%	11
ANGLO AMERICAN PLC	0.70%	2.40%	6	2.70%	5
RIO TINTO PLC	0.40%	2.00%	7	2.40%	6
SSE PLC	0.40%	1.20%	11	2.20%	7
CRH PUBLIC LIMITED COMPANY	0.20%	2.40%	5	1.60%	10
RWE Aktiengesellschaft	0.10%	5.20%	2	4.20%	3
AIR PRODUCTS AND CHEMICALS, INC.	0.10%	1.00%	16	3.00%	4
Fortum Oyj	0.10%	1.20%	13	1.50%	12
CEMEX, S.A.B. de C.V.	0.00%	1.50%	9	0.90%	15

**TCFD Recommended Disclosure**

**c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.**

Both 'mainstream' risks and climate-related risks are discussed by the Committee. While specific macro-economic risks are not usually included in isolation, the Fund has deemed climate risk to be sufficiently significant and therefore included it on the Fund's Risk Register. Climate risk is further managed through the Fund's Climate Stewardship Plan.

## Metrics and Targets

### TCFD Recommended Disclosure

**a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.**

The Fund receives annual reports from LGPS Central Ltd which set out the carbon risk metrics for its listed equities and fixed income portfolios. The poor availability of data in unlisted asset classes prevents a more complete analysis at this time.

The carbon risk metrics analysis includes:<sup>5</sup>

- Absolute Emissions (measured by 'Financed Emissions')
- Emissions Intensity (measured by 'Normalised Financed Emissions' and 'Weighted Average Carbon Intensity', or WACI)
- Data Quality
- Paris Alignment

The full results of these analyses fall beyond the scope of this TCFD report, but will be detailed in the 2023 Climate Risk Report. These carbon risk metrics aid the Fund in assessing the potential climate-related risks to which the Fund is exposed, and identifying areas for further risk management, including company engagement and fund manager monitoring. The Fund additionally monitors stewardship data (see above).

### TCFD Recommended Disclosure

**b) Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. TCFD Guidance:** *Asset owners should provide the weighted average carbon intensity, where data are available or can be reasonably estimated, for each fund or investment strategy.*

In line with the TCFD guidance and following receipt of a report from LGPS Central Limited we provide below the carbon metrics relating to the Total Equity portfolios.<sup>6</sup> Further information is available in the full dashboard at the end of this report.

<sup>5</sup> Definitions of these metrics can be found in the Glossary at the end of this report.

<sup>6</sup> Analysis undertaken on the listed equities portfolios with holdings data as of 30<sup>th</sup> June 2023. The information in Table 4 was provided to the Fund in a report authored by LGPS Central Limited. In LGPS Central Limited's report, the Total Equities portfolio comprises the Total Active Equities and the Total Passive Equities portfolios weighted according to their size in GBP.

**Table 4: Carbon risk metrics for total equities as of 31<sup>st</sup> March 2023<sup>7</sup>**

Portfolio	Financed Emissions		Normalised Financed Emissions		Weighted Average Carbon Intensity		Data Quality	Alignment
	PF	BM	PF	BM	PF	BM		
Total Equities	253,283	351,069	70.0	94.6	101.0	156.7	2.1	21.6%

The financed emissions associated with the Fund's total equities are approximately 28% lower than the financed emissions of the blended benchmark. This follows an approximate 8% decrease in the Fund's financed emissions year-on-year. Similarly, the Fund's equities experienced an approximate 11% decrease in WACI from the previous year. Finally, the Fund's equities are associated with a WACI which is 36% lower than that of the benchmark.

The Fund's equity investment has a lower exposure to fossil fuels relative to the benchmark, as measured by both absolute exposure and when apportioned by revenue. While the benchmark has a greater absolute exposure to companies involved in clean tech, when exposure to clean tech is apportioned by revenue the exposure exceeds that of the benchmark.

70% of the Fund's equities are associated with companies which are currently being engaged by the Fund. Further to this, 22% of the financed emissions are associated with companies which are considered to be aligned or aligning to the Paris agreement, as determined by LGPS Central's alignment metric.

Whilst the Fund's carbon risk metrics results show the Fund generally 'outperforms' its benchmarks, the Fund is proactively exploring ways to further embed climate risk management in its investment decision making. The Fund expects to update its carbon risk metrics data on an annual basis.

#### TCFD Recommended Disclosure

#### **c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.**

The ability for diversified investors (such as pension funds) to set meaningful climate targets is inhibited by the paucity of credible methodologies and data currently available. Like most investors, the Fund is supportive of the development of target-setting methodologies, and the increasing completeness of carbon datasets. The Fund wishes to set meaningful and challenging climate targets for its investment portfolio and work is underway to assess options within the limitations of currently available data.

<sup>7</sup> Certain information ©2021 MSCI ESG Research LLC. Reproduced by permission.

## Appendix 1

TCFD Recommendations for Asset Owners (source: TCFD)

### Governance

Recommended Disclosure (a) Describe the board's oversight of climate-related risks and opportunities.

Recommended Disclosure (b) Describe management's role in assessing and managing climate-related risks and opportunities.

### Strategy

Recommended Disclosure (a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.

Recommended Disclosure (b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.

Recommended Disclosure (c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

### Risk Management

Recommended Disclosure (a) Describe the organisation's processes for identifying and assessing climate-related risks.

Recommended Disclosure (b) Describe the organisation's processes for managing climate-related risks.

Recommended Disclosure (c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.

### Metrics and Targets

Recommended Disclosure (a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

Recommended Disclosure (b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

Recommended Disclosure (c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

## Appendix 2: Glossary

**Clean Technology/ Weight in Clean Technology:** the weight of a portfolio invested in companies whose products and services include clean technology. Products and services eligible for inclusion include Alternative Energy, Energy Efficiency, Green Building, Pollution Prevention, Sustainable Water.

**Coal Reserves/ Portfolio exposure to thermal coal reserves:** the weight of a portfolio invested in companies that own thermal coal reserves.

**Data Quality:** this metric assesses the quality of a company's carbon reporting. It is represented on a scale of 1-4, where 1 (the highest score) suggests that emissions data has been independently verified. A score of 4 (the lowest score) suggests that data may be based on sectoral estimates.

**Engagement:** dialogue with a company concerning particular aspects of its strategy, governance, policies, practices, and so on. Engagement includes escalation activity where concerns are not addressed within a reasonable time frame.

**Financed Emissions:** the absolute amount of greenhouse gas emissions associated with a particular holding or portfolio. This is calculated by assuming the investor is responsible for their share of the company's total emissions. For example, if an investor owns 10% of a company which emits 1000 tonnes of CO<sub>2</sub>, the investor's financed emissions will be 100 tonnes.

**(Normalised) Financed Emissions:** the portfolio's financed emissions divided by £1m invested. This intensity figure allows investors to track changes in financed emissions over time, irrespective of changes in AUM.

**Fossil Fuel Reserves/ Portfolio exposure to fossil fuel reserves:** the weight of a portfolio invested in companies that own fossil fuel reserves.

**Paris Alignment:** This score, expressed as a percentage, shows the proportion of financed emissions within the portfolio that are aligned to LGPSC's 'alignment' metric. In order to classify as aligned, the company must meet several threshold criteria across a variety of climate metrics.

**Physical risk/ climate physical risk:** the financial risks and opportunities associated with the anticipated increase in frequency and severity of extreme weather events and other phenomena, including storms, flooding, sea level rise and changing seasonal extremities.

**Scope 1 Greenhouse Gas Emissions:** Direct emissions from owner or sources controlled by the owner, including: on-campus combustion of fossil fuels; and mobile combustion of fossil fuels by institution-controlled vehicles.

**Scope 2 Greenhouse Gas Emissions:** Indirect emissions from the generation of purchased energy

**Scope 3 Greenhouse Gas Emissions:** Indirect emissions that are not controlled by the institution but occur as a result of that institutions activities. Examples include commuting, waste disposal and embodied emissions from extraction.

**Stewardship:** the promotion of the long-term success of companies in such a way that the ultimate providers of capital also prosper, using techniques including engagement and voting.



**Transition risk/ climate transition risk:** the financial risks and opportunities associated with the anticipated transition to a lower carbon economy. This can include technological progress, shifts in subsidies and taxes, and changes to consumer preferences or market sentiment.

**Voting:** the act of casting the votes bestowed upon an investor, usually in virtue of the investor's ownership of ordinary shares in publicly listed companies.

**Weighted Average Carbon Intensity (WACI):** A proxy for a portfolio's exposure to potential climate-related risks (especially the cost of carbon), often compared to a performance benchmark. It is calculated by working out the carbon intensity (Scope 1+2 Emissions / \$M sales) for each portfolio company and calculating the weighted average by portfolio weight.


### **Appendix 3: Important Information**

Extract above from Mercer Limited's (Mercer) report "Climate Change Scenario Analysis" dated August 2022 prepared for and issued to LGPS Central Limited for the sole purpose of undertaking climate change scenario analysis for Nottinghamshire Pension Fund. Other third parties may not rely on this information without Mercer's prior written permission. The findings and opinions expressed are the intellectual property of Mercer and are not intended to convey any guarantees as to the future performance of the investment strategy. Information contained herein has been obtained from a range of third party sources. Mercer makes no representations or warranties as to the accuracy of the information and is not responsible for the data supplied by any third party.

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## Appendix 4: Total Equities Dashboard

Equities																	
Equities Asset Class	Multiple Fund Classification	Multiple Fund Manager	£3,924,467,201 NAV				Blended Reference Index				Q1 2023 Period						
Carbon Footprint Metrics										Data Availability							
		Portfolio		Reference		Previous Year		Portfolio		Reference							
Total Financed Emissions	Scope 1+2	253,283		337,640		275,208		94.6%		97.8%							
tCO2e	Scope 3	3,121,196		3,097,224		3,014,555		94.2%		97.4%							
Normalised Financed Emissions	Scope 1+2	70.0		91.1		79.7											
tCO2e/£M Invested	Scope 3	868.7		835.4		880.8											
Weighted Average Carbon Intensity	Exclude Sovereign	101.0		149.1		113.2		94.6%		97.8%							
tCO2e/\$M Revenue	Include Sovereign	101.0		149.1		113.2		94.6%		97.8%							
Top 10 Emissions Contributors										Recommendations / Observations							
Issuer	PF Weight	Ref Weight	% Financed Emission	% WACI	Scope 1+2	Scope 3	Engagement	Focus	Data	LCT	ITR	SBT					
SHELL PLC	2.0%	2.3%	18.7%	1	7.3%	1	137.7M	1,174.0M	Yes	Yes	2	2.9	2.5	No	<ul style="list-style-type: none"> <li>Relative outperformance in financed emissions was driven largely by asset allocation decisions in Energy and Materials, as well as security selection in Utilities.</li> <li>YoY, the transition of 5% of equities into LGPSC's Sustainable Equity Fund helped drive a decrease in the Fund's overall financed emissions.</li> <li>WACI declined partially driven by lower carbon intensities by issuers within the Utilities sector.</li> </ul>		
BP P.L.C.	1.0%	1.3%	4.0%	3	1.5%	11	35.5M	640.7M	Yes	Yes	2	2.8	2.4	No			
ANGLO AMERICAN PLC	0.7%	0.5%	2.4%	6	2.7%	5	13.3M	335.2M	Yes	No	2	5.8	5.5	No			
RIO TINTO PLC	0.4%	0.8%	2.0%	7	2.4%	6	30.3M	583.9M	Yes	No	2	5.5	5.9	No			
SSE PLC	0.4%	0.3%	1.2%	11	2.2%	7	6.2M	4.7M	No	No	2	5.7	1.3	Yes			
CRH PUBLIC LIMITED COMPANY	0.2%	0.4%	2.4%	5	1.6%	10	33.8M	22.4M	Yes	Yes	2	4.9	1.8	Yes			
RWE Aktiengesellschaft	0.1%	0.0%	5.2%	2	4.2%	3	89.6M	23.0M	Yes	No	2	4.5	6.6	Yes			
AIR PRODUCTS AND CHEMICALS, INC.	0.1%	0.1%	1.0%	16	3.0%	4	24.2M	20.2M	Yes	No	2	4.4	10.0	No			
Fortum Oyj	0.1%	0.0%	1.2%	13	1.5%	12	17.0M	120.2M	Yes	No	2	3.1	10.0	No			
CEMEX, S.A.B. de C.V.	0.0%	0.0%	1.5%	9	0.9%	15	39.3M	14.8M	Yes	No	2	4.0	1.9	Yes			
High Impact Sectors / Climate Solutions Exposures (Portfolio vs Benchmark)										Worst YoY Contributors				Stewardship Focus			
										DRAX GROUP PLC				No			
										Fortum Oyj				No			
										GLENCORE PLC				Yes			
High Impact Sectors / Climate Solutions Exposures (Portfolio vs Benchmark)										Portfolio Alignment & Engagement							
Fossil Fuel Exposure		Fossil Fuel Revenue		Thermal Coal Exposure		Coal Power Exposure		Cleantech Exposure		Cleantech Revenue		Engagement	Data Quality	LCT	ITR	SBT	Alignment
7.0%	9.5%	2.9%	4.2%	2.2%	3.2%	0.0%	0.1%	35.1%	36.9%	5.7%	4.9%	70.1%	2.1	37.4%	21.3%	36.9%	21.6%