

CLWYD PENSION FUND COMMITTEE

Date of Meeting	Wednesday 27 November 2024
Report Subject	Climate Change Analysis Update
Report Author	Head of Clwyd Pension Fund

EXECUTIVE SUMMARY

The purpose of this report is to provide the Committee with the following documents which relate to the climate change analysis undertaken on the Clwyd Pension Fund's ("the Fund") assets;

- A draft of the Task Force on Climate-Related Financial Disclosures ("TCFD") report;
- A draft summary of the key points from the TCFD report for scheme members and other interested stakeholders;
- The latest Analytics for Climate Transition ("ACT") analysis carried out for the Fund.

Key Highlights

- Within the Listed Equity portfolio, the Fund has decreased its Carbon Footprint by 40.2% since the 2021 baseline and is ahead of its 2025 interim decarbonisation target.
- The Fund has achieved its target of having all of its Listed Equity portfolio invested in sustainable mandates by 2030.
- The Fund has decreased its Carbon Footprint by c.80% within the Tactical Asset Allocation (TAA) portfolio since 2022.
- The Fund has conducted analysis on two core metrics from the Taskforce on Nature-related Financial Disclosures (TNFD), which are shown within the TCFD report. Committee will also be receiving training on TNFD in 2025.

These documents cover the period ending 31 March 2024, and are attached as appendices to this report. The report and the appendices include key findings in relation to the Fund's decarbonisation and actions for the future.

RECOMMENDATIONS

1	That the Committee consider, discuss and note the draft Task Force on Climate-Related Financial Disclosures (TCFD) report, draft member summary and the analysis from the Analytics for Climate Transition (ACT).
2	The Committee to review and agree the updates to the Fund's targets shown in section 1.11 that look to align an existing Engagement Target and implement a new Alignment Target in line with latest guidance from the Institutional Investors Group on Climate Change (IIGCC) Net Zero Investment Framework (NZIF) 2.0.

REPORT DETAILS

1.00	Climate change analysis of the Fund's Assets
1.01	<p>Overview</p> <p>The Committee recognise climate change as a key risk that could impact the value of the assets of the Fund if not properly measured and managed.</p> <p>The Investment Strategy Statement (ISS) documents the Committee's beliefs in relation to managing climate risk and agreed targets to measure progress made towards decarbonisation.</p> <p>Although it is currently not a requirement for LGPS funds to produce a TCFD report, it was decided that the Fund would report this information on a voluntary basis, given that the targets and monitoring of greenhouse gas emissions is already being undertaken. In addition, climate change is a key focus of the Committee, and the additional reporting helps monitor and publicise the Fund's progress.</p>
1.02	<p>TCFD report</p> <p>TCFD reporting provides a framework for greater transparency and understanding in relation to how this risk is being managed for the Clwyd Pension Fund. The draft of the TCFD report is included in Appendix 1. In addition a draft member summary has been prepared which highlights the key points of the report, and it is proposed that this will be uploaded to the Clwyd Pension Fund website alongside the main report to provide a simple yet focussed overview of the Fund's approach to managing climate risk. This is attached as Appendix 2.</p> <p>Section 3 of the report provides more background on the TCFD framework. The Fund will continue to report on this basis until LGPS TCFD requirements are formalised.</p> <p>The TCFD report covers the following key areas:</p> <ul style="list-style-type: none">• Governance• Strategy• Risk Management• Metrics and targets
1.03	<p>Governance</p> <p>The Fund has a strong governance framework through the Committee, the Pension Board, the Advisory Panel, a Scheme of Delegation as well as expert advisers including those providing regulated investment advice. This robust and proven governance structure is being applied in relation to how the Fund manages climate risk.</p> <p>As some of the Fund's assets are invested through the Wales Pension Partnership (WPP), it is important to work with WPP to deliver the climate beliefs of Fund.</p>

	<p>The WPP is responsible for appointing the voting and engagement provider (currently Robeco), creating new sub-funds for the Constituent Authority members, and reporting and monitoring on climate exposures within the WPP investment funds.</p>
1.04	<p><i>Strategy</i></p> <p>The Committee has considered the impact of climate change on the Fund's investment strategy. Analysis showed that in most scenarios, climate change would have a negative impact on the Fund's financial position unless the implementation of the strategy continues to evolve as the world decarbonises.</p> <p>The Committee has approved a number of climate beliefs within the Investment Strategy which are:</p> <ul style="list-style-type: none"> • Climate change presents a systemic risk to the overall stability of every economy and country, with the potential to impact on the members, employers and all of the holdings in the Fund's investment portfolio. • Considering the impacts of climate change is not only the legal or fiduciary duty of the Fund but is also consistent with the long-term nature of the Fund. The Fund's investments need to be sustainable to be in the best interests of all key stakeholders. • Engagement is the best approach to enabling the change required to address the Climate Emergency, however selective risk-based disinvestment is appropriate to facilitate the move to a low carbon economy. • As well as creating risk, climate change also presents opportunities to make selective investments that achieve the required returns, whilst at the same time make a positive social and environmental impact, such as environmental infrastructure and clean energy. <p>Initiatives that the Fund have conducted to date includes:</p> <ul style="list-style-type: none"> • Helped develop a sustainable equity mandate with the WPP, and since allocated to this mandate along with other constituent authorities within WPP; • Introduced more sustainable / ESG focused funds, where possible, into the Tactical Asset Allocation ("TAA") Portfolio when implementing new positions; • Implemented a fossil fuel 'Exclusions Policy' in relation to our listed equity holdings; • Engaged with managers on matters pertaining to ESG within private markets, including looking at ways to improve climate metric data capture; • Supported investments with strong sustainability/ impact focus by allocating 8% of the total portfolio to local / impact focused investments within Private Markets; • Endeavoured to make sustainable-focused allocations within other private market asset classes (Private Equity, Private Debt, Infrastructure and Real Estate) where possible; • Engaged with a subset of the existing Private Market managers using an enhanced version of our engagement template to gather climate metrics specific to each managers asset class.

	<p>During the period 1 April 2023 to 31 March 2024, the Fund continued to increase its commitments to local/ impact focused portfolios within private markets, this included investments with a focus on clean energy and energy transition. The Fund’s strategic allocation to local/impact investments was also increased from 6% to 8%.</p> <p>Looking forward, the Fund will continue to:</p> <ul style="list-style-type: none"> • identify ways to reduce ongoing greenhouse gas emissions in order to meet agreed targets; • reduce and eventually remove fossil fuel company exposure; • continue to commit to investments that support the energy transition • continue to increase the analysis coverage of the Fund’s; • investments, with a focus on private market assets using the new template in line with the latest IIGCC guidance for climate analysis.
1.05	<p><i>Risk management</i></p> <p>The Fund already has a Risk Management Strategy in place, which is being applied to managing climate risk in the same way as it is used to manage all other investment risks. The Fund prioritises the management of risks primarily based on the potential impact on the financial stability of the Fund and employer contribution rates. The Fund manages risk through Governance, Strategy, Reporting, Manager Selection and Monitoring, and Active Stewardship. Further information is provided within the report in Appendix 1.</p>
1.06	<p><i>Metrics and targets</i></p> <p>The Committee has agreed a target for the investments in the Fund, as a whole, to have net zero carbon emissions by 2045, with an interim target of carbon reduction of 50% by 2030. Underlying this overall target, there are a number of other key targets as outlined below:</p> <p>a) for the Fund as a whole:</p> <ul style="list-style-type: none"> • to have at least 30% of the Fund’s assets allocated to sustainable investments by 2030. • to expand the measurement of the carbon emissions of the Fund’s investments to include as many components of the assets as possible, based on the availability of reliable and accurate data. <p>b) within the Listed Equity portfolio:</p> <ul style="list-style-type: none"> • to achieve a reduction in carbon emissions of 36% by 2025 and 68% by 2030. • to target all of the Listed Equity portfolio being invested in sustainable mandates by 2030. • to engage with the biggest polluters within the Fund’s Listed Equity portfolio as part of an overarching stewardship and engagement strategy, to achieve: <ul style="list-style-type: none"> ○ by 2025, at least 70% of companies, as measured by value invested and emissions exposure, in carbon-intensive sectors have clearly articulated and credible strategies to attain net zero or are subject to engagement to achieve this objective.

- by 2030, at least 90% of companies, as measured by value invested and emissions exposure, in carbon-intensive sectors have clearly articulated and credible strategies to attain net zero or are subject to engagement to achieve this objective.

In 2023, the Fund developed an exclusions policy assessment framework in relation to its physical listed equity portfolio. The ambition of the Fund is to consider the application of the exclusions policy to all parts of the portfolio over time, based on the availability of robust data and implementation practicalities.

A snapshot of the existing policy is shown below for reference and highlights of the progress are shown in section 1.10.

The policy is to exclude companies which breach the following thresholds:	Minimum Objective	Fund's Ambition
SAA Weight	-	-
The % of or more of revenues from exploration, mining, extraction, distribution and / or refining of hard coal and lignite.	1%	1%
The % of or more of revenues from Oil: companies involved in exploration, extraction, refining and / or distribution of oil fuels.	10%	1%
The % of or more of revenues from Gas: companies involved in exploration, extraction, manufacturing or distribution of hydrocarbons, hydrogen and carbon monoxide mixtures present in gaseous state.	50%	1%

A summary of the Fund's performance against these targets, including progression against the 2021 baseline is included in the ACT report in Appendix 3 and main highlights are provided within the TCFD report in Appendix 1.

In order to be able to measure whether the Fund is achieving these targets, the following climate-related metrics are being used:

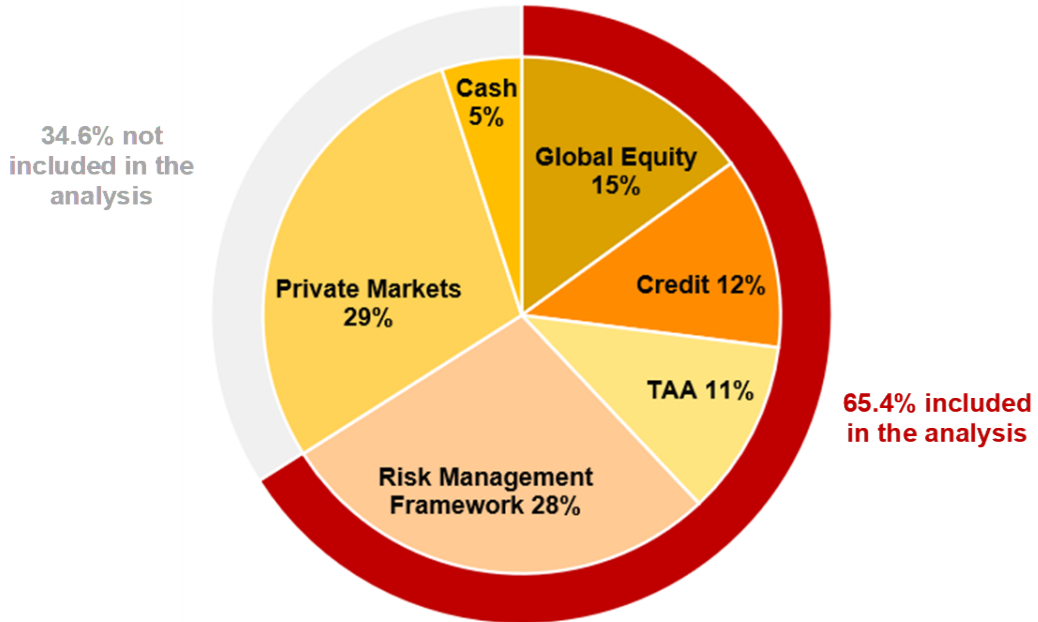
- Absolute emissions metric
- Emissions intensity metric: Carbon Footprint
- Emissions intensity metric: Weighted Average Carbon Intensity (WACI)

1.07 *Taskforce on Nature-related Financial Disclosures ("TNFD")*

Analysis has been conducted on the listed equities and multi-asset credit "MAC" (corporate bond exposure) mandates to map the exposure to two core metrics from TNFD, namely:

	<ul style="list-style-type: none"> • Metric 1 - Exposure to priority sectors • Metric 2 - Exposure to biodiversity-sensitive locations <p>Analysis was conducted on the Fund’s listed equities and corporate bond exposure (within the Multi-Asset Credit (“MAC”) mandate).</p> <p>The analysis was an important first step in identifying key nature risk exposures. The analysis noted that under both metrics that there was significant exposure within listed equities, and marginal exposure within the corporate bond holdings. Significant exposure to these metrics does not necessarily indicate that the Fund is negatively affecting these areas. Instead it provides a starting point for conversation with underlying managers on the topics to see how the companies within these areas are operating (positively or negatively) from a nature perspective. Highlights of the analysis can be found within Appendix 1.</p> <p>TNFD training will be provided to the Committee and Board on 19 February 2025.</p>
1.08	<p>Analytics For Climate Transition (ACT)</p> <p>The ACT report is included in Appendix 3. It provides a detailed analysis and information on the Fund’s climate metrics, information on progress achieved versus targets and future areas of focus.</p> <p><i>Purpose of analysis</i></p> <p>The ACT analysis provides the Fund with an updated understanding of the Fund’s climate transition progress and potential (“transition capacity”) as at 31 March 2024. It is the fourth year of this analysis.</p> <p>The aim of the ACT analysis is to:</p> <ul style="list-style-type: none"> • Monitor progress against the Fund’s targets, including decarbonisation and explores the proportion of emissions within material sectors that are currently under engagement or aligned with a low carbon future; • Understand the transition capacity of the Fund’s assets; • Present an updated high level implementation plan for the relevant assets, with an overview of areas to focus on in the coming years. <p>Carbon footprint is the primary metric for monitoring the decarbonisation progress; progress is also monitored against absolute emissions and weighted average carbon intensity (WACI). The targets were set relative to a baseline in 2021.</p>
1.09	<p><i>Holdings analysed</i></p> <p>Carbon metrics have been analysed on 65.4% of the Fund’s assets, which is a significant increase from 2023 (40.6%), this is a result of the inclusion of the Risk Management Framework (“RMF”) portfolio. Analysis was carried out on the Fund’s listed equities, synthetic equity exposure, MAC, TAA Portfolio and RMF.</p>

An additional c.11% of the Fund's assets relating to private market holdings are being captured as part of an ongoing data collation exercise, using a new template created in line with latest market guidance (IIGCC). This exercise is still in progress. The aim is to be able to bring the private market assets into the main analysis over time as data and comparability improves.



Where there is partial coverage of a portfolio the absolute emissions metric is scaled up to estimate coverage for 100% of the mandate.

Detailed analysis on each of the asset classes analysed is shown within Appendix 3.

1.10 *Key findings and areas for focus*

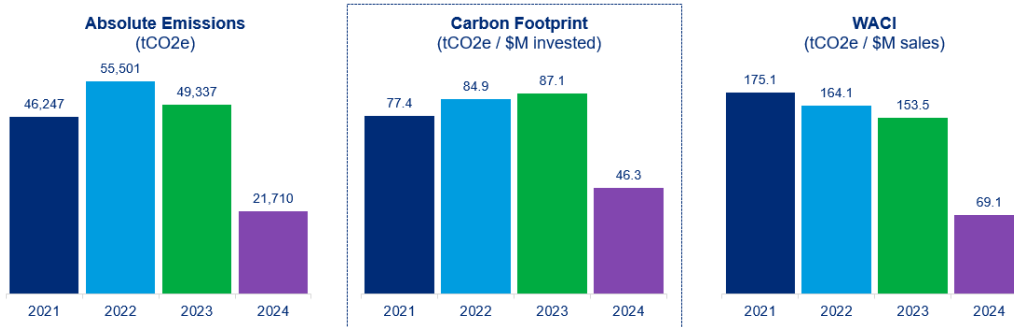
Appendix 3 provide a full breakdown of the Fund's progress against its targets. Key findings from the ACT analysis are summarised below:

Total Fund

- Target setting is currently focused on listed equities with other asset classes being incorporated over time.
- The Fund is on track to have at least 30% of its assets allocated to sustainable investment by 2030, as the analysis shows the Fund has c.29% of assets invested or to be invested in sustainable mandates.

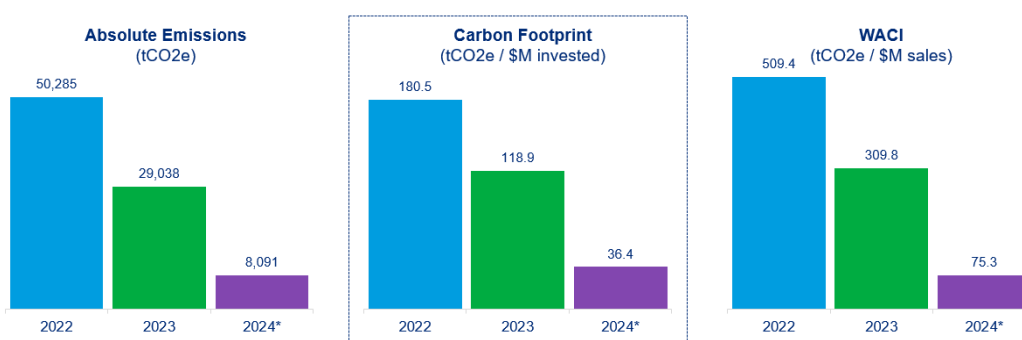
Listed Equities

- Over the year, absolute emissions decreased 56.0%, carbon footprint decreased 46.8% and WACI decreased by 55.0%.



- Carbon footprint (the Fund's chosen metric) has decreased by 40.2% since the 2021 baseline.
- The Fund is now ahead of its 2025 interim target of 36%. Progress over the year was primarily driven by the transition to the WPP Sustainable Active Equity fund.
- The Fund is on track towards interim target of 68% decarbonisation by 2030. Engagement with underlying companies will now be key to progress the Fund's decarbonisation of listed equities given that the main strategic changes have been made.
- The Fund has met its target 6 years early to target all of the Listed Equity portfolio being invested in sustainable mandates by 2030.
- 53% of Material Sectors' Financed Emissions at listed equity level are aligned or subject to active engagement, this is a slight reduction from the 65% in 2023. The drop in alignment is driven by taking a more prudent methodology in assessing alignment; the assessment now follows the latest guidance from the IIGCC Net Zero Investment Framework ("NZIF") 2.0.

TAA Portfolio



For additional transparency we have shown the progression of the TAA portfolio.

Over the year, the Fund's TAA portfolio Absolute Emissions decreased by 72.1%, Carbon Footprint decreased by 69.4% and WACI decreased by 75.7%.

Progress over the past 12 months has been substantial across all three metrics and has been driven by selecting investment opportunities with a sustainable tilt upon implementation. It should be noted that the main aim of the TAA portfolio is to pursue short term opportunities which, in our view, are likely to deliver returns. Therefore, whilst responsible investment implementation of positions is considered, we are unlikely to see such falls

each year and may take positions which may not improve ongoing emissions.

Fossil Fuel Exclusions Policy

The Fund’s exclusion policy implemented in 2023 has been assessed as at 31 March 2024, the Fund has achieved its “Minimum Objective” and is close to achieving the “Fund’s Ambition”. A summary is provided below:

- Revenues from Oil – 1 Company falls short of the “Fund’s Ambition”
- Revenues from Gas – 2 Companies fall short of the “Fund’s Ambition”

The policy is to exclude companies which breach the following thresholds:	Minimum Objective	Fund’s Ambition	WPP Sustainable Active Equity as at 31 March 2024
SAA Weight	-	-	15%
	% of revenues		% of assets
The % of or more of revenues from exploration, mining, extraction, distribution and / or refining of hard coal and lignite.	1%	1%	0.0%
The % of or more of revenues from Oil: companies involved in exploration, extraction, refining and / or distribution of oil fuels.	10%	1%	0.5% (£1,722,505) 1 Company – Energy Sector
The % of or more of revenues from Gas: companies involved in exploration, extraction, manufacturing or distribution of hydrocarbons, hydrogen and carbon monoxide mixtures present in gaseous state.	50%	1%	1.1% (£3,789,510) 2 Companies – Energy Sector

1.11 Updated Targets – Listed Equities

Proposed Target Updates

Within the ACT analysis, there are two proposed changes to listed equity targets. The proposals are to bring these targets in line with market leading guidance which should make monitoring and engagement with managers easier as it allows for a consistent approach across the industry.

The first proposal is a change is to bring the existing engagement target in line with the “Engagement Threshold Target” as identified by the NZIF 2.0.

Current Target

“Stewardship and alignment target: to engage with the biggest polluters within the Fund’s Listed Equity portfolio as part of an overarching stewardship and engagement strategy, to achieve:

- by 2025, at least 70% of companies, as measured by value invested and emissions exposure, in carbon-intensive sectors have clearly

	<p>articulated and credible strategies to attain net zero or are subject to engagement to achieve this objective;</p> <ul style="list-style-type: none"> • by 2030, at least 90% of companies, as measured by value invested and emissions exposure, in carbon-intensive sectors have clearly articulated and credible strategies to attain net zero or are subject to engagement to achieve this objective.” <p><i>Proposed Target – “Engagement Threshold Target”</i></p> <p>“At least 70% of financed emissions in material sectors are either assessed as net zero, aligned with a net zero pathway, or the subject of direct or collective engagement and stewardship actions. This threshold increases to 90% by 2030.”</p> <p>The second proposal is to bring in a new “Alignment Target” as set out in the NZIF 2.0, and stated below for reference:</p> <p>“100% AUM in material (high impact) sectors in developed listed equities that are i) achieving Net Zero or ii) meeting a criterion considered to be aligned or iii) aligning by 2030, extending to emerging markets by 2040.”</p>
1.12	<p>Mercer’s recommended key areas of focus for the next 12 to 18 months are summarised below:</p> <ul style="list-style-type: none"> • Listed Equities – continue monitoring Listed Equities against the interim decarbonisation targets. • Listed Equities – engage with companies through WPP, Russell or through the WPP voting and engagement provider (Robeco) in respect of the new “Climate Engagement Target List” which highlights the highest intensity emitters which are not currently under engagement by Robeco or Climate Action 100. Our latest analysis showed that 6% of the Listed Equity portfolio was responsible for 81% of total contribution to Carbon Footprint emissions (Scope 1 and 2). This holding therefore represents a material risk to the Fund should a rapid transition materialise. It is imperative for the Fund that the investment managers are cognisant of this risk and are actively engaging with these companies. Due to licencing restrictions the names of the companies in the public report have to be anonymised, however company names are available in the private part of the meeting for Committee members. • MAC – engage with WPP on a sustainable MAC mandate and engage with WPP with respect to the underlying managers of the mandates to see what commitments have made in respect of decarbonisation. • TAA – continue to allocate to sustainable versions/ ESG titled funds when implementing tactical positions where possible. • Private Markets – continue to engage with Private Market managers under the new template in line with the latest IIGCC guidance for climate analysis and look to set credible targets for these asset classes where possible (dependent upon data quality and manager responses).

	<ul style="list-style-type: none"> • Nature - Continue to use nature analysis and engagement with managers to understand how they are managing these potential risks.
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2.00	RESOURCE IMPLICATIONS
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2.01	None directly as a result of this report.
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3.00	CONSULTATIONS REQUIRED / CARRIED OUT
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3.01	None directly as a result of this report.
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4.00	RISK MANAGEMENT
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4.01	<p>This report addresses some of the risks identified in the Fund's Risk Register. Specifically, this covers the following (either in whole or in part):</p> <ul style="list-style-type: none"> • Governance risk: G2 • Funding and Investment risks: F8, I1, I2, I3
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5.00	APPENDICES
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5.01	<p>Appendix 1 – Task Force on Climate-Related Financial Disclosures (TCFD) – 31 March 2024</p> <p>Appendix 2 – Draft TCFD Member Summary – 31 March 2024</p> <p>Appendix 3 – Analytics for Climate Transition (ACT) – 31 March 2024</p>
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6.00	LIST OF ACCESSIBLE BACKGROUND DOCUMENTS
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6.01	<ul style="list-style-type: none"> • Report to Pension Fund Committee – Overview of risk management framework – Previous monthly reports and more detailed quarterly overview. <p>Contact Officer: Philip Latham, Head of Clwyd Pension Fund Telephone: 01352 702264 E-mail: philip.latham@flintshire.gov.uk</p>
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7.00	GLOSSARY OF TERMS
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7.01	<p>A list of commonly used terms are as follows:</p> <p>a) Administering Authority or Scheme Manager: Flintshire County Council is the administering authority and scheme manager for the</p>
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Clwyd Pension Fund, which means it is responsible for the management and stewardship of the Fund.

- b) **Carbon footprint:** The amount of carbon dioxide (or other greenhouse gasses) released into the atmosphere as a result of the activities of a particular individual, organization or community. Carbon footprint is calculated for each company as (Scope 1 and 2 carbon emissions / \$m investments). See also Scope 1, 2, 3 emissions and Weighted Average Carbon Intensity (WACI).
- c) **Carbon intensity:** The amount of emissions of carbon dioxide (or other greenhouse gasses) released per unit of another variable such as revenue, gross domestic product (GDP), per \$1million invested etc. See also Weighted Average Carbon Intensity (WACI).
- d) **Carbon price:** The price for avoided or released carbon dioxide (CO₂) or CO₂-equivalent emissions. This may refer to the rate of a carbon tax, or the price of emission permits. In many models that are used to assess the economic costs of mitigation, carbon prices are used as a proxy to represent the level of effort in mitigation policies.
- e) **Carbon neutrality:** Achieved by offsetting emissions by paying for credits (usually certified via new forestry equivalents that provide carbon removal). Carbon neutrality is similar to net zero targeting – the latter requires actual emissions reductions to meet targets though (rather than purchasing offsets). See also Net Zero CO₂ emissions.
- f) **Clwyd Pension Fund (the “Fund”):** The Pension Fund managed by Flintshire County Council for local authority employees in the region and employees of other employers with links to local government in the region.
- g) **Clwyd Pension Fund Committee (the “Committee”):** The Flintshire County Council committee responsible for the majority of decisions relating to the management of the Clwyd Pension Fund.
- h) **Decarbonisation:** The process by which countries, individuals or other entities aim to achieve zero fossil carbon existence. Typically refers to a reduction of the carbon emissions associated with electricity, industry and transport.
- i) **Financial Stability Board:** an international body established by the G20 that monitors and makes recommendations about the global financial system
- j) **Global warming:** The estimated increase in global mean surface temperature expressed relative to pre-industrial levels unless otherwise specified. See also Pre-industrial.
- k) **Greenhouse gases:** Gases in the planet’s atmosphere which trap heat. They let sunlight pass through the atmosphere but prevent heat from leaving the atmosphere. Greenhouse gases include Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O),

Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF6), Nitrogen Trifluoride (NF3).

- l) **Inevitable policy response:** A scenario that expects an acceleration of climate-related policy announcements in 2023–2025, which has been supported by the Principles for Responsible Investment (PRI).
- m) **Investment Strategy Statement (ISS):** The main document that outlines our strategy in relation to the investment of assets in the Clwyd Pension Fund.
- n) **Local Authority Pension Form Forum (LAPFF):** Is both an engagement partner and forum for member funds to share insights and best practice and to identify opportunities. Promoting specific investment interests of local authority pension funds as asset owners.
- o) **Local Government Pension Scheme (LGPS):** The national scheme, which Clwyd Pension Fund is a part of.
- p) **Mitigation (of climate change):** A human intervention to reduce emissions or enhance the sinks of greenhouse gases.
- q) **Mitigation strategies:** In climate policy, mitigation strategies are technologies, processes or practices that contribute to mitigation, for example, renewable energy (RE) technologies, waste minimization processes and public transport commuting practices.
- r) **Net zero CO2 emissions:** Net zero carbon dioxide (CO2) emissions are achieved when CO2 emissions are balanced globally by CO2 removals over a specified period. The term “net zero” is also typically associated with the 2050 date or earlier, as this is aligned with the scientific recommendations to achieve a 1.5°C scenario. See also Carbon neutrality (which differs slightly).
- s) **Paris Agreement:** The Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) was adopted on December 2015 in Paris, at the 21st session of the Conference of the Parties (COP) to the UNFCCC. The agreement, adopted by 196 Parties to the UNFCCC, entered into force on 4 November 2016 and as of May 2018 had 195 Signatories and was ratified by 177 Parties. One of the goals of the Paris Agreement is “Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels”, recognising that this would significantly reduce the risks and impacts of climate change. Additionally, the Agreement aims to strengthen the ability of countries to deal with the impacts of climate change.
- t) **Physical risks:** Dangers or perils related to the physical or natural environment that pose a threat to physical assets e.g. buildings, equipment and people. Mercer’s scenario analysis grouped these into the impact of natural catastrophes (for instance sea level rise,

flooding, wildfires, and hurricanes) and resource availability (particularly water). See also Transition risks.

- u) **Pre-industrial:** The multi-century period prior to the onset of large-scale industrial activity around 1750. The reference period 1850–1900 is used to approximate pre-industrial global mean surface temperature.
- v) **Principles for Responsible Investment (PRI):** Non-profit organisation which encourages investors to use responsible investment to enhance returns and better manage risks. It engages with global policymakers and is supported by, not but part of the United Nations. It has six Principles for Responsible Investment that offer a menu of possible actions for incorporating ESG issues into investment practice.
- w) **Private Market Investments:** Commitments to Private Equity / Debt, Property, Infrastructure, Timber, Agriculture and other Opportunistic Investments.
- x) **Resilience:** The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation.
- y) **Scope 1, 2, 3 emissions:** Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.
- z) **Stranded assets:** Assets exposed to devaluations or conversion to “liabilities” because of unanticipated changes in their initially expected revenues due to innovations and/or evolutions of the business context, including changes in public regulations at the domestic and international levels.
- aa) **Stewardship:** The responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society.
- bb) **Task Force on Climate-related Financial Disclosures (TCFD):** framework designed to improve and increase reporting of climate-related financial information
- cc) **Taskforce on Nature-Related Financial Disclosures (TNFD):** market-led, science-based TNFD framework enabling companies and financial institutions to integrate nature into decision making
- dd) **Transition alignment:** the process of moving away from high-carbon intensive processes towards business models and assets

aligned with a low carbon future and the Paris agreement. Different sectors will have different pathways to net zero.

ee) **Transition risks:** Risks from policy changes, reputational impacts and shifts in market preferences, norms and technology as the economy moves to a low carbon approach. See also Physical risks.

ff) **Weighted average carbon intensity (WACI):** The carbon intensity of a portfolio, weighted by the proportion of each constituent in the portfolio. Carbon intensity is calculated for each company as (Scope 1 and 2 carbon emissions / \$m revenue). See also Carbon footprint.

gg) **Wales Pension Partnership (WPP):** A collaboration of the eight LGPS funds (Constituent Authorities) covering the whole of Wales and is one of the eight national Local Government Pension pools. WPP was established in 2017.