Great-West Lifeco Inc. - Climate Change 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Great-West Lifeco Inc. (hereinafter “Great-West Lifeco” or “the Corporation” or “we” or “our” or “us”) is an international financial services holding company with interests in life insurance, health insurance, retirement and investment services, asset management and reinsurance businesses. We operate in Canada, the United States, UK and Europe under the brands Canada Life, Empower, Putnam Investments and Irish Life. At the end of 2022, our companies had more than 31,000 employees, 234,500 advisor relationships, and thousands of distribution partners – all serving our more than 38 million customer relationships across these regions. Great-West Lifeco and its companies have approximately $2.5 trillion in consolidated assets under administration as of December 31, 2022, and are members of the Power Corporation of Canada group of companies. Great-West Lifeco trades on the Toronto Stock Exchange (TSX) under the ticker symbol GWO.

Great-West Lifeco has long held responsible and ethical management as an intrinsic value, which we believe is essential to our long-term profitability and value creation for our stakeholders. As such, one of the Corporation’s values is “committing ourselves to sustainability”. As part of this commitment, we believe playing an active and thoughtful role in ensuring the transition to a carbon neutral economy is a critical priority for the sustainability of our world. As a global financial institution, we recognize our opportunity to be an ally and active participant taking much needed collective action.

We are pleased to affirm our commitment to achieving net zero greenhouse gas (GHG) emissions well before 2050 in our operations and by 2050 for our financed emissions. Interim targets are currently in development. We are hopeful our commitment drives new economic activities, generates climate resilient investment opportunities, and supports a viable transition for sectors that require transformational change to remain resilient as we respond to this global challenge. Meeting our commitment means working collaboratively with clients and advisory and investment partners to drive innovation towards a sustainable future. Our immediate focus will be on developing a comprehensive transition plan, including interim targets to reduce emissions reflective of contemporary climate science.

Our net zero ambition builds on our commitment to address climate-related risks and opportunities, which we have affirmed by becoming an official Supporter of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in 2020. It also reinforces the support of many of our subsidiaries for the United Nations-led Principles of Responsible Investing, and our commitment to integrate the TCFD recommendations into our operation practices and reporting functions as part of our broader ESG mandate across the organization.

The following document presents our approach to climate-related issues for the Great-West Lifeco and its operating subsidiaries.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
No

Select the number of past reporting years you will be providing Scope 1 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for
<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.

Barbados
Bermuda
Canada
Germany
India
Ireland
Isle of Man
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

CAD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Financial control

C-FS0.7

(C-FS0.7) Which activities does your organization undertake, and which industry sectors does your organization lend to, invest in, and/or insure?

	Does your organization undertake this activity?	Insurance types underwritten	Industry sectors your organization lends to, invests in, and/or insures
Banking (Bank)	No	<Not Applicable>	<Not Applicable>
Investing (Asset manager)	Yes	<Not Applicable>	Exposed to all broad market sectors
Investing (Asset owner)	Yes	<Not Applicable>	Exposed to all broad market sectors
Insurance underwriting (Insurance company)	Yes	General (non-life) Life and/or Health	None of the above

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	CA39138C1068
Yes, a Ticker symbol	Lifeco trades on the TSX under ticker symbol GWO
Yes, a SEDOL code	BG05N18

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	The Risk Committee of the Board of Directors is responsible for, among other things, oversight of the Corporation's enterprise risk management (including its management of sustainability risk and more specifically climate change risk). Oversight of climate-related risks is an important responsibility of the Risk Committee's mandate, particularly given the uncertain nature of climate-related issues. The Risk Committee oversees the ERM framework and the company's principal risks including credit, insurance, market, operational, conduct, and strategic risks. Climate change is explicitly reflected in our risk taxonomy as part of strategic risk. Oversight of risks related to climate change are an important part of the responsibility of the Risk Committee of the Board, enabling the Corporation to proactively identify and mitigate potential risks, while also considering the opportunities within our portfolio. The Risk Committee also reviews and approves the annual Own Risk and Solvency Assessment (ORSA) Report. In Q1 2022, Lifeco added Environmental Risks as new Emerging Risk. The company did so to separate this risk out from Climate Change Transition Impacts and to expand this new risk to both extreme events and gradual changes in environmental risks. The current and emerging risk heat maps are included in the CRO Report. The CRO Report is presented to Risk Committee quarterly by the CRO, who provides key highlights which may include current and emerging risks. At the Q3 2022 Risk Committee, a separate agenda was included on current and emerging risks. At the Q4 2022 Risk Committee, a presentation was provided to the Risk Committee on how the climate change scenarios were updated to align with Network for Greening the Financial System (NGFS) scenarios, new climate risk guidance forthcoming from the Canadian government, and climate change now explicitly incorporated into the strategic risk taxonomy.
Board-level committee	The Investment Committee of the Board of Directors is responsible for, among other things, climate change as part of the oversight it provides on global investment strategies, including climate related transition risks and opportunities such as cleaner energy sectors that could impact our investment growth strategies. Oversight of climate-related impacts are an important part of the responsibility of the Investment Committee of the Board, enabling the Corporation to proactively identify and mitigate potential risks, while ensuring we maximize the opportunities within our investment portfolio. In 2022, The Lifeco Boards approved revised charters for the Boards, Audit Committees, Risk Committees, and Investment Committees to formally incorporate ESG matters. As with all responsibilities set out in the charters, the enumerated ESG responsibilities will be monitored to ensure the charters continue to reflect our evolving governance of this important area.
Board-level committee	The Audit Committee reviews and recommends to the Board of Directors for approval of certain corporate disclosures of environmental related information (including climate-related topics) with respect to governance, risks, opportunities and performance on an annual basis. In 2022, this included climate-related corporate disclosures, which was formally added as a responsibility in the Audit Committee charter.
Chief Executive Officer (CEO)	The President and Chief Executive Officer of Great-West Lifeco is informed of CSR-related issues, including climate-related matters, via a number of management reporting channels. The CEO has oversight over the Corporation's climate-related strategies and resources and capabilities within the Corporation to support those strategies, including a recent senior management appointment focused on advancing the Corporation's CSR strategy and related policies. Management of climate change is formally established at the executive level of the Corporation through the Sustainable Investment Council (chaired by the Chief Investment Officer). In 2022 the President and CEO reviewed and provided senior executive oversight over the development of the Corporate Purpose and Social Impact Strategy, which includes the Great-West Lifeco's net zero by 2050 commitment.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing and guiding strategy Overseeing and guiding scenario analysis Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process Other, please specify (Climate related corporate disclosures)	Climate-related risks and opportunities to our own operations Climate-related risks and opportunities to our investment activities Climate-related risks and opportunities to our insurance underwriting activities The impact of our own operations on the climate The impact of our investing activities on the climate	The Great-West Lifeco Board of Directors and Board-level committees (including the Risk Committee, Investment Committee, and the Audit Committee) together have oversight of climate-related issues and meet at least quarterly. The Risk Committee reviews the ERM Framework, including the Risk Appetite Framework. The Risk Committee provides oversight and monitors both current and emerging risks and opportunities facing the Corporation, including climate-related transition, physical, and liability risks. In this respect, climate change is one of the stress and scenario tests within our ORSA report. The climate change scenarios incorporate all ERM Framework categories of risk, including transition, physical and liability risks. The Investment Committee reviews risks and opportunities related to our investment strategy and activities, including specific physical and transition risks. The Investment Committee also oversees our investment strategies and performance against investment plans, including cleaner energy investments through our private debt placements in renewable energy projects. In 2022, the Board of Directors, Risk Committee and Investment Committee, reviewed our Corporate Purpose and Social Impact Strategy, which includes the Great-West Lifeco's net zero by 2050 commitment. The Audit Committee reviews and recommends to the Board of Directors for approval certain corporate disclosures of environmental related information (including climate-related topics) with respect to governance, risks, opportunities and performance on an annual basis. In 2022, climate-related corporate disclosures, were approved by the Audit Committee.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Board competencies for corporate sustainability are presented in the 2022 Management Proxy Circular with 15 board members possessing related skills and experience in a variety of areas including sustainability. In 2022, The Lifeco Board approved revised charters for the Board, Audit Committee, Risk Committee, and Investment Committee to formally incorporate ESG matters. As with all responsibilities set out in the charters, the enumerated ESG-related responsibilities will be monitored to ensure the charters continue to reflect our evolving governance of this important area.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
Risks and opportunities related to our investing activities
Risks and opportunities related to our insurance underwriting activities
Risks and opportunities related to our own operations

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain

Position or committee
Chief Risks Officer (CRO)

Climate-related responsibilities of this position
Conducting climate-related scenario analysis
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities
Other, please specify (Providing independent risk oversight and effective challenge of climate-related activities; Ensuring risk processes are in place to identify, measure, manage, monitor and report on climate-related risks and opportunities; Preparing the ORSA annually)

Coverage of responsibilities
Risks and opportunities related to our investing activities
Risks and opportunities related to our insurance underwriting activities
Risks and opportunities related to our own operations

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
The CRO has ultimate responsibility for the Enterprise Risk Management team conducting climate-related scenario analysis. The CRO and Chief Investment Officer are the primary members of senior management who are engaged with regarding climate-related scenario analysis and stress testing. As a result, the CRO is one of the key stakeholders who oversees the assessment and management of climate-related risks and opportunities.

The CRO is the head of the Risk Function and is responsible for providing independent risk oversight and effective challenge of climate-related activities (risks and opportunities) across the company. Within the "other, please specify" text, the responsibility of preparing the ORSA annually refers to preparing the Own Risk and Solvency Assessment annually (which includes climate change stress and scenario testing).

Position or committee
Chief Investment Officer (CIO)

Climate-related responsibilities of this position
Integrating climate-related issues into the strategy
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
Risks and opportunities related to our investing activities

Reporting line
Other, please specify (President and Group Head, Strategy, Investments, Reinsurance and Corporate Development)

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
The CIO has ultimate responsibility for integrating climate-related issues into the investment strategy. The Chief Risk Officer and Chief Investment Officer are the primary members of senior management who are engaged with regarding climate-related scenario analysis and stress testing. As a result, the CIO is one of the key stakeholders who oversees the assessment and management of climate-related risks and opportunities.

Position or committee
Other, please specify (Deputy Chief Financial Officer)

Climate-related responsibilities of this position
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities
Other, please specify (Reviewing and approving sustainability strategies)

Coverage of responsibilities
Risks and opportunities related to our own operations

Reporting line
Finance - CFO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain

Position or committee
Other, please specify (Executive Risk Management Committee)

Climate-related responsibilities of this position
Other, please specify (Reviews the company’s climate related risk exposures and associated risk mitigation strategies; Oversees climate-related risks and opportunities)

Coverage of responsibilities
<Not Applicable>

Reporting line
Risk - CRO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain

Position or committee
Other, please specify (Lifeco Strategic Operating Committee (LSOC))

Climate-related responsibilities of this position
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
Risks and opportunities related to our investing activities
Risks and opportunities related to our insurance underwriting activities
Risks and opportunities related to our own operations

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain

Position or committee
Other, please specify (Lifeco Executive Management Committee (LEMC))

Climate-related responsibilities of this position
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
Risks and opportunities related to our investing activities
Risks and opportunities related to our insurance underwriting activities
Risks and opportunities related to our own operations

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain

Position or committee
Other, please specify (Sustainable Investment Council)

Climate-related responsibilities of this position
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
Risks and opportunities related to our investing activities
Risks and opportunities related to our insurance underwriting activities

Reporting line
Investment - CIO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain

Position or committee
Chief Sustainability Officer (CSO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities
Other, please specify (Reviewing and approving sustainability strategies and corporate communications. Providing strategic oversight on our Corporate Purpose and Social Impact Strategy, which includes our net zero commitment.)

Coverage of responsibilities
Risks and opportunities related to our investing activities
Risks and opportunities related to our insurance underwriting activities
Risks and opportunities related to our own operations

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
The CSO reviews and approves sustainability strategies and corporate communications. They provide strategic oversight on the deployment, positioning and communications associated with our Corporate Purpose and Social Impact Strategy, which includes our net zero Commitment and considers climate-related risks and opportunities. In addition, they manage the annual budget for Lifeco's Corporate Purpose and Social Impact Strategy, which includes climate mitigation activities.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Incentives for climate-related issues are provided at the various functions and business lines of the Great-West Lifeco business. Specifically, incentives related to climate-related issues include integration into the business, implementing strategies, achieving targets, performance objectives and reporting expectations.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Chief Risk Officer (CRO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Other (please specify) (Climate change related risk management)

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
The Great-West Lifeco Chief Risk Officer is compensated based on the effectiveness of the risk management oversight function, which includes providing independent risk oversight of all risk-taking activities and embedding a disciplined risk management culture across Lifeco. The CRO annually assesses whether any risk-related adjustments to variable compensation should be considered by Human Resources Committee of the Board. The assessment includes a component relating to compliance with our ERM Framework, including climate change risk management.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The CRO annually assesses whether any risk-related adjustments to variable compensation should be considered by Human Resources Committee of the Board. The assessment includes a component relating to compliance with our ERM Framework, including climate change risk management.

Entitled to incentive
Chief Investment Officer (CIO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Increased alignment of portfolio/fund to climate-related objectives

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
The Great-West Lifeco Chief Investment Officer is compensated based on the value created through our investment portfolios. Ensuring environmental criteria, including climate-related risks and opportunities are considered in our investment decision-making related to acquisitions or divestments is part of this mandate, which could have an impact on value creation in our investments. In addition, the Chief Investment Officer at our Irish Life Investment Managers (ILIM) subsidiary has monetary incentives to enhance overall ESG solutions for clients, improve the carbon intensity of our discretionary portfolios versus broad market benchmarks and increase the percentage of AUM in ESG strategies, which includes climate-related factors.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Great-West Lifeco has committed to meet net zero in the financed emissions in our general account investments by 2050. The Great-West Lifeco Chief Investment Officer is compensated based on the value created through our investment portfolios. Ensuring environmental criteria, including climate-related risks and opportunities are considered in our investment decision-making is part of this mandate, which could have an impact on value creation in our investments.

In addition, Great-West Lifeco's asset management subsidiary ILIM has a climate commitment of c.20% of total assets under management (AUM) to Net Zero, with the long-term target of 100%. For these assets, ILIM will seek to achieve at least 25% reduction in weighted average carbon intensity by 2025, and at least 50% reduction by 2030, compared to base year 2019. Monetary incentives to improve the carbon intensity of ILIM's discretionary portfolios and asset classes vs. broad market benchmarks and other factors noted in the comment provide additional weight behind the key actions needed for ILIM to reach its net zero commitment.

Entitled to incentive
Portfolio/Fund manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Increased alignment of portfolio/fund to climate-related objectives

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
The portfolio fund managers in our Irish Life Investment Managers affiliate have performance incentives tied to ensuring that the carbon intensity enhancements (vs. broad market benchmarks) are met for all proprietary ESG strategies and multi asset portfolios.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
This creates alignment between the financial reward, ILIM's net zero commitment and targeted customer outcomes specified in fund documentation.

Entitled to incentive
Chief Sustainability Officer (CSO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Implementation of an emissions reduction initiative

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
The Chief Sustainability Officer's annual objectives include strategic oversight on the deployment, positioning and communications associated with the Corporation's Corporate Purpose and Social Impact Strategy, which includes our net zero commitment.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The Chief Sustainability Officer's annual objectives include strategic oversight on the deployment, positioning and communications associated with the Corporation's Corporate Purpose and Social Impact Strategy, which includes our net zero commitment.

C-FS1.4

(C-FS1.4) Does your organization offer its employees an employment-based retirement scheme that incorporates ESG criteria, including climate change?

	Employment-based retirement scheme that incorporates ESG criteria, including climate change	Describe how funds within the retirement scheme are selected and how your organization ensures that ESG criteria are incorporated	Provide reasons for not incorporating ESG criteria into your organization's employment-based retirement scheme and your plans for the future
Row 1	Yes, as an investment option	Great-West Lifeco incorporates ESG principles into self-directed defined contribution employment-based retirement schemes through the responsible investment options offered to employees by select subsidiary investment management companies. Specifically, this includes all our funds that are managed with an ESG integration approach, as well as socially responsible investment (SRI) funds, and/or a brokerage window to select sustainable investment options are provided. These options, or a subset of them, are available for employees at Canada Life, Irish Life Investment Managers, Empower, PanAgora, and Putnam Investments (as part of investment options for employees' 401(k) plans in the USA). In addition, Irish Life Group has incorporated ESG principles including climate change across its retirement schemes as follows; - Self directed defined contribution arrangements: the default fund meets Article 8 SFDR criteria and a full range of Article 8 SFDR fund options are made available to members. - Defined Benefit Scheme: ESG considerations have been adopted into the Statement of Investment Principles and the equity, corporate fixed income and property allocations are explicitly invested in strategies which meet the Article 8 SFDR criteria.	<Not Applicable>

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	5	The definition of short-term will vary depending on the process, initiative or objective. Specific with respect to climate change stress and scenario testing and the classification of current and emerging risks, we generally consider the short term to be 0–5 years.
Medium-term	5	25	The definition of medium-term will vary depending on the process, initiative or objective. The timelines have been updated to better reflect NGFS scenarios and are specific with respect to climate change stress and scenario testing.
Long-term	25	80	The definition of long-term will vary depending on the process, initiative or objective. The timelines have been updated to better reflect NGFS scenarios and are specific with respect to climate change stress and scenario testing.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

We define substantive financial or strategic impacts on our business based on our Enterprise Risk Management (ERM) current and emerging risk framework based on a consideration of the velocity, probability and impact of a risk on our business. A substantive financial impact in relation to climate change occurs where the following conditions occur: high velocity (immediate adverse impact on business operations and market valuation and the speed of onset of impact is less than 6 months); high impact (greater than $1 billion impact on earnings or capital) and high probability (plausible scenario but still unlikely greater than 25%).

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Sustainability risks, including climate change, are integrated into the ERM Framework, which provides the foundation to enable effective risk management and oversight. A key component of the ERM framework is the ongoing assessment of current and emerging risks within our direct operations. Through this process, the materiality of risks is assessed based on velocity, probability and impact. Where material issues are identified, policies and risk management programs, and controls are established to ensure the risks and opportunities are being addressed through consistent guidelines and standards.

Within our direct operations, for example, we assessed the impacts of physical extreme weather events on our business operations, including office locations and data centres. For example, in 2021 we assessed extreme weather events in Europe and possible flooding impacts in Ireland. Through the materiality assessment, we determined that while the risks were noteworthy, the losses would not be substantive to the business, representing less than 1% of capital and operating expenditures. Furthermore, the climate-related physical risks would be further minimized given the inherent diversification of our business offices and data centres in Canada, the U.S., and Europe.

From a transition standpoint, we assessed the possible reputational risks from a lack of disclosure and transparency on climate governance, science targets, net zero commitments, risk management, strategy and performance. Note that the time horizons (short/medium/long) are in the context of climate change stress and scenario testing

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Value chain stage(s) covered
Upstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Sustainability risks, including climate change, are integrated into the ERM Framework, which provides the foundation to enable effective risk management and oversight. A key component of the ERM framework is the ongoing assessment of current and emerging risks upstream in our value chain. Through this process, the materiality of risks is assessed based on velocity, probability and impact. Where material issues are identified, policies and risk management programs, and controls are established to ensure the risks and opportunities are being addressed through consistent guidelines and standards.

For example, the assessment of upstream climate-related risks has included third party suppliers and the feasibility of engaging them as part of our net zero commitment. We also continued to conduct climate scenarios of the physical flood and wind risks in our Property & Casualty (P&C) reinsurance and mortality and morbidity insurance business. The results were included as part of our ORSA report, confirming our business remained resilient. Note that the time horizons (short/medium/long) are in the context of climate change stress and scenario testing

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C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	As part of our regulatory tracking process, we identify, assess and report regularly through our regional and global Compliance function to relevant management and board committees. This ongoing process includes assessments of current and emerging regulation for implications on our business. We actively monitor emerging policy and regulatory requirements and participate in regulatory consultations either directly or through various industry associations in the jurisdictions in which we operate. Some climate-related regulatory proposals that were monitored during the relevant period include those from the Securities and Exchange Commission (SEC), the US Department of Labour, the International Sustainability Standards Board (ISSB), the Office of the Superintendent of Financial Institutions (OSFI), the EU, and the UK's Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA). As an example of current regulation reviewed over 2022, in the U.S., we assessed the Guidance for New York Domestic Insurers on Managing the Financial Risks from Climate Change, which requires us to consider the financial impacts from climate change into our governance frameworks, business strategies, risk management processes and scenario analysis, and develop our approach to climate-related financial disclosure.
Emerging regulation	Relevant, always included	As part of our regulatory tracking process, we identify, assess and report regularly through our regional and global Compliance function to relevant management and board committees. This ongoing process includes assessments of current and emerging regulation for implications on our business. We actively monitor emerging policy and regulatory requirements and participate in regulatory consultations either directly or through various industry associations in the jurisdictions in which we operate. Some climate-related regulatory proposals that were monitored during the relevant period include those from the Securities and Exchange Commission (SEC), the US Department of Labour, the International Sustainability Standards Board (ISSB), the Office of the Superintendent of Financial Institutions (OSFI), the EU, and the UK's Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA). As an example of emerging regulation reviewed over 2022, in Canada, we reviewed the draft OSFI Guideline B-15: Climate Risk Management which proposes a prudential framework focused on risk management and disclosure expectations (now expected to be aligned with ISSB disclosure requirements). The guideline was finalized in Q1 2023, and will subsequently be expanded to incorporate stress testing requirements.
Technology	Relevant, always included	We assess the impacts of technology developments, including costs associated with transitioning to lower emission and smarter technologies, and changing innovations related to fuel switching away from the use of fossil fuels. For example, within our property management services carried out by our subsidiary GWL Realty Advisors, we have been assessing costs and capital investments at some properties to transition towards smarter more efficient buildings that optimize energy efficiency and 'smart' building technology. While important, these costs are not expected to generate a substantive change to our business operations given that GWL Realty Advisor's real estate management services represent less than 0.1% of our overall revenue. As part of the climate scenario testing, we considered risks and opportunities related to transition risks associated with technology and the potential impact on our general account investment portfolio. In this case, we considered sectors that could be exposed to increased costs due to investments in cleaner technologies as well as the potential depreciation of assets or assets classes from emerging disruptive technologies. We also consider technology risks within the investment portfolios of our subsidiaries. For example, Putnam Investments continues to assess its investment portfolio for leaders that were effectively innovating to meet the changing energy transition.
Legal	Relevant, sometimes included	Through our climate risk assessments, we assess risk of climate-related litigation, fines, and orders and the possible liability, cost and reputational implications in our operations, value chain or investments. For example, in 2022, we continued to monitor the climate change litigation landscape against other issuers (such as those brought against oil and gas, energy and utility companies).
Market	Relevant, always included	Through our risk assessments, we consider the impact of climate-related events on the market demand for our products and services. For example, we have assessed the possible losses that could result from fluctuating socio-economic conditions from society's exposure to weather-related losses and the potential impact from lapse rates. Through our assessment, we concluded that lapse rates from extreme weather events, such as Hurricane Katrina, were not severe and had limited impact on insurance affordability and customer retention rates. We also consider the potential for stranded assets that may arise from climate-related market trends. For example, our subsidiary Canada Life Asset Management UK equities team undertook a thematic review of the nuclear energy sector. It looked at developments in nuclear technology, the policy environment and potential investment opportunities. They concluded that nuclear power is a transition fuel, which will allow countries to meet their energy requirements while complying with environmental targets. Strides have been made to address some of the risks associated with nuclear and recent innovations provide hope for even cleaner nuclear power. Nuclear also addresses the sovereignty and energy security issues many countries are facing in relation to the use of fossil fuels. As a result the UK made a decision to add a new holding in the nuclear power sector and increase the weight in another already held. It is important to note that over the past year we have started to also see a growing interest by clients for climate-related considerations in the delivery of our investment and insurance products and services, which have either directly or indirectly been included as queries in requests for proposals. While still nascent, this is an area of continued market growth that is considered as part of our product development assessments.
Reputation	Relevant, always included	Through our climate-related risk assessments, we consider the reputation of Great-West Lifeco on climate-related impacts from our stakeholders, including customers, governments, investors, and NGOs, among others. We recognize that the increasing stakeholder interest in climate change raises the importance of transparent disclosure on how we identify and manage climate change risks, which if not effectively addressed could damage brands, stakeholder trust, demand for products and services, and ability to access capital. For example, over the past few years, there has been an increase in investor interest on environmental, social and governance factors, which includes responding to and mitigating climate risks. As a result, we remain focused on the transparency and credibility of the information we publish publicly on climate-related issues, including with respect to governance, risks, opportunities and performance. In 2022, our subsidiaries Canada Life Asset Management UK and Irish Life Investment Managers both released interim targets for operations and financed emissions, in part to address the increase in investor and client interest on environmental factors. In addition, Irish Life Group and Canada Life UK have achieved a top quartile industry rating (A2) from Moody's following their recent Sustainability assessment, reflecting a strong capacity and willingness to integrate ESG factors into its strategy, operations, and risk management. However, when considered generally in the context of our overall business and other types of reputational risks we do not consider climate-related reputational risks to have a substantive impact on our business, revenues or expenditures.
Acute physical	Relevant, always included	We consider exposure to increased severity of extreme weather events, such as cyclones, hurricanes and floods in our reinsurance business and the general account investment portfolio and the effect on operating costs associated with our own operations as well as the value of our investment portfolios. For example, in our reinsurance business we based our assessments on worst-case scenarios (peak peril modelling) which have indicated these events would not result in a substantive impact to our business. Claims related to losses from hurricanes Harvey, Irma, and Maria combined resulted in established reserves of $175 million, which were not considered to be substantive on our overall business. It is important to note that reinsurance is designed to attach for very significant claim events for the underlying cedants, and there are contractual limits, which cap exposure on the portfolio. We license the latest modelling from an industry-leading provider to help us calculate loss probabilities for our portfolios by geographic region. Reinsurance contracts are renegotiated annually, which allows an opportunity to revisit risk exposures and limits on an ongoing basis. Therefore, any impacts from acute weather-related events would not have a substantive impact on our business operations, revenue or expenditures over the long-term. We also have a maximum claim amount for all such contracts, limiting our risk exposure. In our general account investment portfolio, we assessed acute physical risks as part of the NGFS scenario stress test, where we assumed a limited corrective transition response and fallout from extreme weather events that could lead to high mortality rates, property damage, decline in property values, business disruption and a pandemic event.
Chronic physical	Relevant, always included	Through our climate-related risk assessments, we consider exposure to changes in chronic physical impacts, including changes in precipitation patterns, extreme variability in weather patterns, rising mean temperatures, and rising sea levels on operating costs associated with our own operations as well as the value of our investment portfolios. For example, in our general account investment portfolio we assessed chronic physical risks, which assumed a limited corrective transition response and fallout from weather events. In particular, potential areas of vulnerability of our investment portfolio were reviewed in our bonds and conventional mortgages on properties and real estate holdings in coastal areas. These risk exposures are inherently limited by our mortgage portfolio limits, which currently does not exceed 8% for any region, thereby decreasing our risk arising from any one location. In 2021, we updated our risk assessment by including gradual precipitation flood and wind risks in our Property & Casualty (P&C) reinsurance and mortality and morbidity insurance business. The results were included as part of our ORSA report, confirming our business remained resilient. In terms of our life and health insurance businesses, we inherently diversify our morbidity and mortality risks limiting concentrations in any one specific region or geography. Furthermore, research and analysis are done regularly to provide the basis for establishing pricing and valuation assumptions that properly reflect the insurance market, including potential climate-related health impacts. Over the past few years, we have not experienced notable changes in insurance claims as a result of climate-related impacts and note that we also have inherent portfolio diversification between our mortality and longevity business.

C-FS2.2b

(C-FS2.2b) Do you assess your portfolio’s exposure to climate-related risks and opportunities?

	We assess the portfolio's exposure	Explain why your portfolio’s exposure is not assessed and your plans to address this in the future
Banking (Bank)	<Not Applicable>	<Not Applicable>
Investing (Asset manager)	Yes	<Not Applicable>
Investing (Asset owner)	Yes	<Not Applicable>
Insurance underwriting (Insurance company)	Yes	<Not Applicable>

C-FS2.2c

(C-FS2.2c) Describe how you assess your portfolio’s exposure to climate-related risks and opportunities.

	Type of risk management process	Proportion of portfolio covered by risk management process	Type of assessment	Time horizon(s) covered	Tools and methods used	Provide the rationale for implementing this process to assess your portfolio's exposure to climate-related risks and opportunities
Banking (Bank)	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Investing (Asset manager)	A specific climate-related risk management process	39	Qualitative and quantitative	Short-term Medium-term Long-term	Portfolio temperature alignment Scenario analysis Stress tests Internal tools/methods	As an asset manager, Great-West Lifeco assesses exposure to climate-related risks and opportunities as it relates to its investment portfolios, covering the insurance General Account (on balance sheet investments for Great-West Lifeco) as well as investments of third party clients mainly managed through Great-West Lifeco’s asset management subsidiaries. Great-West Lifeco’s third party client asset management subsidiaries include Canada Life Asset Manager, Irish Life Investment Managers (ILIM), and Putnam Investments (Putnam). We assess the exposure of the investment portfolio on a broad range of climate-related risks and opportunities, including climate vulnerable sector exposure, clean energy low carbon finance exposure, climate-related investment product exposure as well as carbon emission intensity. The exposure assessments are generally undertaken when it is investment relevant and financially material, and when there is sufficient data. As an example, our subsidiary, ILIM assesses exposure to transition risks by measuring the carbon footprint of its investment portfolio and managing the carbon intensity to a percentage lower than relative indices or benchmarks.
Investing (Asset owner)	Integrated into multi-disciplinary company-wide risk management process	100	Qualitative and quantitative	Short-term Medium-term Long-term	Scenario analysis Stress tests	As an asset owner, Great-West Lifeco assesses exposure to climate-related risks and opportunities of its owned assets within the General Account as well as its physical assets and operations, including office buildings and data centres. For example, in the General Account, Great-West Lifeco assesses the physical and transition climate-related risks and opportunities of assets covering bonds, mortgages, real estate, and equities. To assess the potential impact climate change on our General Account on a range of outcomes, six scenarios were used consistent with the NGFS scenario framework – orderly (Net Zero 2050 and Below 2°C), disorderly (Divergent Net Zero and Delayed Transition) and hot house world scenarios (Nationally Determined Contributions, and Current Policies). The scenarios were modelled over a long time horizon. Each scenario explores a different set of assumptions for how climate policy emissions and temperature evolve. See question 3.1b for details of these scenarios. From an operational perspective, Great-West Lifeco assesses the number of climate-related events on our operations and our performance relating to these events, through a Business Continuity Management Framework that focuses on emergency response, incident management, disaster recovery and business recovery.
Insurance underwriting (Insurance company)	Integrated into multi-disciplinary company-wide risk management process	100	Qualitative and quantitative	Short-term Medium-term Long-term	Scenario analysis Stress tests	As an international financial services holding company with interests in insurance, Great-West Lifeco assesses the exposure to climate-related risks and opportunities in both the health/life insurance business and the property catastrophe reinsurance business. With respect to our property catastrophe coverages, an annual scenario modelling on climate-related events and the impact on our reinsurance business is conducted. We review model outputs from cedents in order to monitor our peak perils at the most significant locations in order to assess the likelihood, severity and velocity of extreme weather events, including windstorms, hurricanes and cyclones. The information from these scenario models enables us to assess the potential quantum of losses, which in turn informs our pricing models. We identify and assess climate change related risk impacts, to determine whether the risk limits would be impacted. With respect to the property catastrophe reinsurance business, we monitor the number and severity of extreme weather events, such as cyclones, hurricanes and floods in our reinsurance business as well as the value of claims related to such losses. For example, Great-West Lifeco included property catastrophe reinsurance loss reserves of $175 million after-tax relating to estimated claims resulting from the impact of Hurricanes Harvey, Irma and Maria. With respect to the health/life insurance business, Great-West Lifeco runs longevity models taking into consideration various factors that could result in health impacts and exposure to morbidity and mortality risks. Furthermore, research and analysis are done regularly to provide the basis for establishing pricing and valuation assumptions that properly reflect the insurance market, including potential climate-related health impacts.

C-FS2.2d

(C-FS2.2d) Does your organization consider climate-related information about your clients/investees as part of your due diligence and/or risk assessment process?

	We consider climate-related information	Explain why you do not consider climate-related information and your plans to address this in the future
Banking (Bank)	<Not Applicable>	<Not Applicable>
Investing (Asset manager)	Yes	<Not Applicable>
Investing (Asset owner)	Yes	<Not Applicable>
Insurance underwriting (Insurance company)	Yes	<Not Applicable>

C-FS2.2e

(C-FS2.2e) Indicate the climate-related information your organization considers about clients/investees as part of your due diligence and/or risk assessment process, and how this influences decision-making.

Portfolio
Investing (Asset manager)

Type of climate-related information considered
Emissions data
Emissions reduction targets
Climate transition plans
TCFD disclosures

Process through which information is obtained
Directly from the client/investee
From an intermediary or business partner
Data provider
Public data sources

Industry sector(s) covered by due diligence and/or risk assessment process
Energy
Materials
Capital Goods
Commercial & Professional Services
Transportation
Automobiles & Components
Consumer Durables & Apparel
Consumer Services
Retailing
Food & Staples Retailing
Food, Beverage & Tobacco
Household & Personal Products
Health Care Equipment & Services
Pharmaceuticals, Biotechnology & Life Sciences
Software & Services
Technology Hardware & Equipment
Semiconductors & Semiconductor Equipment
Telecommunication Services
Media & Entertainment
Utilities
Real Estate

State how this climate-related information influences your decision-making
As an asset manager, Great-West Lifeco requests climate-related information from clients/investees through the investments made in the insurance General Account (on balance sheet investments for Great-West Lifeco) as well as investments of third-party clients mainly managed through Great-West Lifeco's asset management subsidiaries. Great-West Lifeco's third party client asset management subsidiaries include GWL Realty Advisors, Irish Life Investment Managers (ILIM), Putnam Investments (Putnam), and PanAgora. The climate-related information practices may differ across these asset management subsidiaries and within each such subsidiaries' strategies .

For example, both Irish Life Investment Managers (ILIM) and Putnam Investments request climate-related information from investees through their proxy voting and engagement processes as part of their research and risk assessment practices when the information is deemed to be material and additive to the investment process. ILIM requests climate-related information for risk investment purposes through its direct and collaborative engagements (CA100+ and CDP NDC) and its third-party ESG and proxy providers request climate-related information for the purpose of risk assessments and to inform voting decisions. For example, in 2022 ILIM voted against the incumbent board chair for Lennar Corporation as an escalation tactic as the company does not adequately address climate change-related risks and climate-related performance could be improved. This voting action was triggered by the bespoke ILIM Global Proxy Voting Guidelines around climate change issues, which aligned with the engagement objective, as Lennar Corporation was previously targeted for a climate change engagement due to being identified as a climate laggard. Meanwhile, GWL Realty Advisors collects climate-related information from the real estate investment properties under management as part of its risk management practices to inform emission reduction and efficiency improvements.

Portfolio
Investing (Asset owner)

Type of climate-related information considered
Emissions data

Process through which information is obtained
Directly from the client/investee
Data provider
Public data sources

Industry sector(s) covered by due diligence and/or risk assessment process
Energy
Materials
Capital Goods
Commercial & Professional Services
Transportation
Automobiles & Components
Consumer Durables & Apparel
Consumer Services
Retailing
Food & Staples Retailing
Food, Beverage & Tobacco
Household & Personal Products
Health Care Equipment & Services
Pharmaceuticals, Biotechnology & Life Sciences
Software & Services
Technology Hardware & Equipment

Semiconductors & Semiconductor Equipment
Telecommunication Services
Media & Entertainment
Utilities
Real Estate

State how this climate-related information influences your decision-making
As an asset owner, Great-West Lifeco's investment analysis process for the general account includes robust due diligence assessments of potential acquisitions, holdings and divestments, which include climate-related information. In 2022, Great-West Lifeco compiles relevant ESG data, including climate-related information as part of its credit underwriting due diligence process to determine how it may impact the economic value of a company. Climate related information reviewed as part of the due diligence includes a company's GHG direct and indirect emissions associated with its operations, products and services, as well as the use of a carbon price.

Portfolio
Insurance underwriting (Insurance company)

Type of climate-related information considered
Other, please specify (Physical Climate Risk Exposure)

Process through which information is obtained
Directly from the client/investee
Data provider

Industry sector(s) covered by due diligence and/or risk assessment process
Other, please specify (insurance clients irrespective of sector)

State how this climate-related information influences your decision-making
As an insurance provider, Great-West Lifeco will request climate-related information from clients as part of the due diligence decision-making process for reinsurance underwriting. Information requested could include physical climate risk exposure ratings related to property and casualty insurance.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?
No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a substantive financial or strategic impact on business	We assessed climate risks and did not identify through our enterprise risk management processes, including within our market, credit, insurance and operational risk processes, any substantive financial or strategic impacts on our business. Lifeco's operations, offices, data centres and business continuity locations are inherently diversified across geographies in Canada, U.S. and Europe limiting risk exposure. For example, climate scenario stress tests in Winnipeg, Europe and Ireland determined the financial impact from extreme weather events to be less than 1% of capital and operating expenditures. Within the general accounts, the asset portfolio assessed against NGFS scenarios identified 4% of potential areas of vulnerability mainly within bonds, conventional mortgages, real estate holdings and equity sectors. The inherent diversification of investments limits exposure to such vulnerabilities. Bond holdings in potentially vulnerable sectors have shorter duration (less than 10 years) inherently limiting concentration risk. Commercial mortgage properties are inherently regionally diversified and vulnerable properties have P&C insurance. Vulnerable equity holdings such as oil & gas, coal and refined oil products, comprise less than 1% of the total asset portfolio. The inclusion of the P&C and individual / group life business, and invested assets in properties and mortgages further demonstrated the balance sheet to be resilient. Within the reinsurance business, we monitor peak perils at the most significant locations to assess the likelihood, severity and velocity of extreme weather, including windstorms, hurricanes and cyclones, which in turn informs pricing models. Inherent risk limits are in place and monitored to cap maximum exposure through property catastrophe coverage in accordance with the company's risk appetite and preference. Notably, losses from hurricanes Harvey, Irma, and Maria amounted to claim reserves of $175 million, which were not substantive overall. For life/health insurance, the inherent diversification between mortality, longevity, and morbidity risks limits concentrations in any one specific region or geography.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
No

C2.4b

(C2.4b) Why do you not consider your organization to have climate-related opportunities?

	Primary reason	Please explain
Row 1	Opportunities exist, but none with potential to have a substantive financial or strategic impact on business	We assessed climate-related opportunities as part of the ERM. This includes products and services, investments in clean energy, and sustainable real estate investment opportunities. With respect to products and services, our asset management subsidiaries including Putnam Investments and Irish Life Investment Managers (who are signatories to the UNPRI), manage more than CAD$127 billion across a number of ESG related strategies. This includes Putnam's Sustainable Leaders Fund and Sustainable Futures Fund; Irish Life's ESG Corporate Bond Fund, ILIM Climate Focused Fund, Customer ESG Indices, Sustainable Equity Developed Markets Strategy, Sustainable Equity Emerging Markets Strategy; PanAgora Dynamic Equity and Stock Selector Strategies which are ESG-integrated, along with the Sustainable Global Equity, Dynamic Flex, and Diversified Risk Global Equity ESG Aware Strategies and Setanta Ethical & SRI Funds. While these products are noteworthy, they are not considered substantive given our diversified businesses and extensive distribution reach. For example, in 2022, the revenue associated with fees from ESG related strategies represented less than $1bn, which is part of Lifeco's definition of a substantive climate-related opportunity (from definition in C2.1, high impact (greater than $1 billion impact on earnings or capital)). Within the clean energy market, we currently have investments over $6.35 billion in wind, solar, and other renewable energy project investments in Canada, through our Private Debt Investment Group, and our European and US Investment teams in the General Account. While important, investments in low carbon/renewable energy projects/markets are not substantive representing ~2% of our invested assets.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan
No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Publicly available climate transition plan
<Not Applicable>

Mechanism by which feedback is collected from shareholders on your climate transition plan
<Not Applicable>

Description of feedback mechanism
<Not Applicable>

Frequency of feedback collection
<Not Applicable>

Attach any relevant documents which detail your climate transition plan (optional)
<Not Applicable>

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future
We are pleased to affirm our commitment to achieving net zero greenhouse gas (GHG) emissions well before 2050 in our operations and by 2050 for our financed emissions in Great-West Lifeco's General Account. Interim targets are currently in development.

In 2022, our immediate focus was on re-baselining our General Account financed emissions, and then using our new financed emissions baseline to begin developing a transition plan, including interim targets to reduce emissions reflective of contemporary climate science. The publication of our commitment and initial high level plan aspirations were communicated through the following press release - https://www.greatwestlifeco.com/news-events/news/lifeco-news-release-nov-10-2021.html#:~:text=WINNIPEG%2C%20Nov%209%2C%202021%20%2D,to%20be%20announced%20in%202022

Explain why climate-related risks and opportunities have not influenced your strategy
<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios NGFS scenarios framework	Portfolio	<Not Applicable>	In order to assess the potential impact climate change on our General Account on a range of outcomes, six scenarios were used as described below consistent with the NGFS scenario framework – order, disorderly and hot house world scenarios. The scenarios were modelled over a long time horizon. Each scenario explores a different set of assumptions for how climate policy emissions and temperature evolve. Orderly Scenarios: Assumes climate policies are introduced early and gradually become more stringent. Both physical and transition risks are relatively subdued. • "Net Zero 2050": limits global warming to 1.5°C through stringent climate policies and innovation, reaching global net zero CO2 emissions around 2050 • "Below 2°C":gradually increases the stringency of climate policies, giving a 67% chance of limiting global warming to below 2°C Disorderly Scenarios: higher transition risk as policies are delayed or divergent across countries and sectors • "Divergent Net Zero": reaches net zero around 2050 but with higher costs due to divergent policies introduced across sectors leading to a quicker phase out of oil use • "Delayed Transition": assumes annual emissions do not decrease until 2030. Strong policies are needed to limit warming to below 2°C. CO2 removal is limited prior to 2030. Hot House World Scenarios: While climate policies are implemented in some jurisdictions, global efforts are insufficient to halt significant global warming; results in severe physical risk including irreversible impacts (e.g. rises in sea-levels) • "Nationally Determined Contributions (NDCs)": assumes all pledged policies are effective, even if not yet implemented • "Current Policies": assumes that only currently implemented policies are preserved, leading to higher physical risks.
Physical climate scenarios Bespoke physical scenario	Portfolio	Unknown	In 2021, we conducted a physical climate scenario to determine the potential short-term impact of a natural disaster on our insurance exposure (P&C exposure, individual / group life business) and our investment portfolio (real estate and mortgages). Potential events (including a UK Central London storms/flooding compared to a severe flood scenario similar to summer 2007 and a U.S. Florida windstorm similar to Hurricane Katrina) were tested to assess our exposure to potential climate-related events and the associated risk mitigant. Stress testing results demonstrate our balance sheet is resilient.
Transition scenarios IEA NZE 2050	Portfolio	<Not Applicable>	Within the Great West Lifeco general account, in 2022 we assessed our asset portfolio (as of March 31, 2022 to include an acquisition, as well as our asset portfolio as of Dec 31 2022) against the IEA 1.5°C scenario industry carbon budget allocation. For mortgages and investment properties we applied the CRREM 1.5°C scenario with emission intensities varying by country and building type. The analysis also assessed the impact of an increase in the portfolio exposure consistent with the IPCC RCP 2.6 scenario.
Physical climate scenarios RCP 2.6	Portfolio	<Not Applicable>	Using the IPCC 5th Assessment Report, a physical climate scenario analysis was undertaken for our owned and managed real estate assets in Canada under three emission scenarios: • RCP2.6: Aggressive mitigation assumes that global annual GHG emissions peak between 2010-2020, with emissions declining substantially thereafter • RCP4.5: Strong mitigation assumes that emissions peak around 2040, then decline • RCP8.5: Business-as-usual assumes that emissions continue to rise throughout the 21st century The time periods used were 2045 (representing average conditions projected for 2031-2060) and 2070 (representing average conditions projected for 2056-2085). In 2022, an enhancement of the analysis occurred including conducting detailed site level vulnerability assessments on select assets.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

(1) What are the future potential exposures of the general account balance sheet to climate impacts using the NGFS scenarios and the potential areas of vulnerability in the asset portfolio, including bonds, mortgages, real estate and stocks? (2) What are the required reductions in Great-West Lifeco's financed emissions of the general account to meet our net zero emissions by 2050 per asset class? (3) What are the most material physical climate risks that could impact GWL Realty Advisors real estate portfolio, what properties are most exposed, and what are best practices that can be followed for all properties, regardless of risk exposure?

Results of the climate-related scenario analysis with respect to the focal questions

(1) Within the general accounts, we assessed our asset portfolio against the NGFS climate scenarios and identified 4% of potential areas of vulnerability mainly within bonds, conventional mortgages, real estate holdings and equity sectors. However, the inherent diversification of these investments limits our exposure to such vulnerabilities. For example, within bond holdings in potentially vulnerable sectors, we inherently maintain high quality holdings that are of shorter duration (less than 10 years) than the rest of the portfolio limiting our concentration risk to vulnerable sectors. Commercial mortgage properties are regionally diversified and vulnerable properties have P&C insurance. Finally, within equity holdings, vulnerable sectors such as oil and gas, coal and refined oil products comprise less than 1% of the total asset portfolio.

We also determined that climate change was potentially most significant for properties located in a coastal or low-lying area, primarily in the UK, Ireland, Vancouver, California and Central London. These properties are covered under P&C insurance. In the U.S. separate hazard policies are required for commercial mortgage property in flood/hurricane zones. As a result of the analysis, we concluded that the balance sheet remains strong and resilient with respect to the climate change scenarios. Meanwhile, the results have directly informed strategies to consider selectively trimming exposure in longer maturities, limits related to vulnerable industries and coverage of P&C insurance on vulnerable properties.

(2) The results of the scenario analysis recommend that Lifeco reduce its total emissions by 92% between 2022 and 2050 to meet science-based net-zero requirements. 92% of all required reductions are expected to occur within Listed ('Corporate') bonds, Private debt – Power, and Sovereign bonds.

(3) The scenario analysis generally indicated that assets in coastal cities and southern US states had relatively higher exposure to the physical risks of climate change. However, in general, the portfolio was assessed as being 'low risk'. Climate change risk ratings for each property were identified through the scenario analysis, and we are now investigating various risk mitigation actions to address the relevant climate hazards and are integrating these risk ratings into our due diligence processes for new acquisitions. As a result of the focal question on best practices that can be followed for all properties, in 2022 the asset manager for owned and managed real estate assets in Canada, GWL Realty Advisors, enhanced the explicit and systematic integration of natural hazard and physical climate risk within the acquisition due diligence process. The process update means the Investment Policy now requires conducting 'transition risk' (i.e., GHG emission) assessments for new properties and have improved processes for physical risk assessments (by adding additional data sources and infrastructure reviews).

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Climate-related risks and opportunities have influenced our product and service strategies. We have strategies within our investment subsidiaries to increase the integration of climate-related considerations into investment products. This includes low carbon finance, sustainable fund options as well as integration into mainstream investment decisions by applying a climate lens. Specifically, we have made investments into sustainable funds that include climate-related considerations through our asset management subsidiaries. Our investments in sustainable funds as at year-end 2022 were CAD127 billion. New ESG funds launched in 2022 include ILIM expanding their Climate Solutions range to include the 'Climate Focused Strategy' and 'Low Carbon Equity Income Strategy' designed with a more stringent set of sustainable criteria. ILIM has now c50% of total AUM in ESG strategies at year end 2022, and has made ESG strategies the default for their DC pension offering for institutional clients – leading the Irish market and exploring options to leverage ESG as a member engagement tool. In addition, Setanta's ethical and SRI funds grew from 0.5 bn to 9bn+ in 2022 due to funds which attained Article 8 (SFDR Level 1 Promotion Date) on 01/01/2022. Several of our investment subsidiaries are also now providing innovative products that integrate climate-related information into client investment portfolios. For example, at PanAgora we are now able to run data on the carbon intensity and science-based targets of an investment portfolio, which clients can request. To take advantage of the low carbon transition, we have continued to increase our investments in the cleaner energy market to support the transition to a low carbon economy, which in 2022 increased 15% when compared to 2021, amounting to over $6.35 billion in wind, solar, and hydro renewable energy projects, as well as environmentally-minded private equity investments such as a sustainable food and agriculture fund. While important, investments in low carbon/renewable energy projects/markets are not substantive representing ~2% of our invested assets.
Supply chain and/or value chain	Yes	Climate-related risks and opportunities have strengthened our approach to selecting third party services providers who conduct investments on our behalf. We made the decision to continue to strengthen the integration of climate-related information into our third-party service providers selection process to ensure they align with our expectations to have climate change topics embedded into their investee proxy voting and engagement process. For example, Irish Life Investment Managers' third parties have specific requirements to integrate climate-related information into their proxy voting and engagement processes as part of their risk assessment practices. They also monitor climate metrics in third party assessments to enable voting sanctions on the highest risk, high carbon emitting companies, including targeted voting against director elections
Investment in R&D	Yes	Through our investment subsidiaries, we are investing in climate-related data research to support the development of client product solutions and portfolio optimizing strategies. For example, in 2022 Putnam released a research paper "Toward a circular economy: Investments for a Thriving Planet™." The global economy currently demands more of the earth's resources than the planet can sustain. Among potential new solutions, the concept of the circular economy has emerged to inform business leaders and investors about maximizing the effective use of resources and minimizing waste. The circular economy is relevant across multiple sectors and business types, and offers potential for new business models to emerge that improve the natural resource intensity of the global economy. This R&D which is made publicly available helps Putnam utilize ESG data within the relevant context of each company and industry, and share insights across Putnam's global research platform. Also in 2022, our subsidiary GWL Realty Advisors had more than 22 property level decarbonization studies underway or completed in 2021 and 2022, and 23 additional studies budgeted/planned for the next 12-18 months following the end of 2022.
Operations	Yes	Within our operations, climate-related risks and opportunities have influenced our strategy with respect to our carbon emissions as well as our corporate reporting and disclosures. With respect to our corporate carbon footprint, we identified opportunities to reduce our carbon emissions and have now set emission reduction targets over a short (2025) and longer term (2036) timeframe. Our focus is on increasing investments in more energy efficient initiatives in our corporate investment properties. For example, as part of this strategy, we set a Scope 1 and 2 GHG emissions target for the Canadian properties to achieve a 27.3% reduction by 2025 and 50.4% reduction by 2036, based on a 2013 baseline. As a specific case study, we have started to strengthen our strategy towards even greater energy efficiency to achieve this target, including with respect to building equipment retrofits, data centre optimization and green building certifications such as BOMA BEST® and/or LEED®. Additionally, in 2022 our UK subsidiary Canada Life Limited released targets for operational (scope 1 & 2 GHG emissions) net zero in property portfolio and business operations by 2030. Increasing stakeholder interest in climate change has influenced our reporting strategies on climate-related information. As a result, we continue to enhance the information we publish publicly on climate-related issues, including with respect to governance, risks, opportunities and performance. Lifeco is pleased to affirm our net zero commitment and in 2022 our immediate focus was on re-baselining our emissions to incorporate a large acquisition which closed in April 2022, and then using our new baseline to begin developing a more comprehensive transition plan, including interim targets to reduce emissions reflective of contemporary climate science. The publication of our commitment and initial high level plan aspirations were communicated through the following press release - https://www.greatwestlifeco.com/news-events/news/lifeco-news-release-nov-10-2021.html#:~:text=WINNIPEG%2C%20Nov%209%2C%202021%20%2D,to%20be%20announced%20in%202022.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Access to capital Assets Provisions or general reserves	Revenues and Provisions or general reserves: While climate-related events do not pose significant risks or opportunity from a revenue standpoint, we do consider potential revenue losses in our financial planning process in the context of our reinsurance business. We review model output from our cedents in order to monitor peak perils at the most significant locations in order to assess the likelihood, severity and velocity of extreme weather events, including windstorms, hurricanes and cyclones. The information enables us to assess the potential quantum of losses, which in turn informs our pricing models. For example, Great-West Lifeco established reserves of $175 million for claims relating to losses from hurricanes Harvey, Irma and Maria which did not result in a substantive impact to the business. Notably, these extreme weather events resulted in no significant losses in our other lines of business, including our other US operations, products, and services. Furthermore, we place contractual limits, which cap exposure on the portfolio. We also renegotiate our reinsurance contracts annually, which enables us to revisit risk exposures and limits on an ongoing basis. For more information, please refer to the risks and opportunities section of this questionnaire. We also continue to monitor our revenues from our investments into sustainable funds that include climate-related considerations through our asset management subsidiaries. Direct costs: While climate-related events do not pose significant risk or opportunity on our operating costs that could be substantive to our business, we do factor energy costs as part of our financial planning process. For example, we have increased investments into more energy efficiency programs in our corporate and investment properties, including building equipment retrofits, data centre optimization and green buildings, which align well with our Scope 1+2 GHG targets for Canadian properties to achieve a 27.3% GHG reduction by 2025 and a 50.4% reduction by 2036, based on a 2013 baseline year. While these are important efficiency improvements, our energy spend is less than 1% of Great-West Lifeco's overall expenditures, and therefore these are not noticeable increases in our operating costs. As part of our net zero commitment, in 2022 we continued to expend costs with a third party provider to conduct a detailed global baseline emissions quantification, 1.5C scenario analysis and reduction lever opportunity assessment. The analysis is being used to inform our interim science-targets and more detailed transition plan. Access to capital: We have not identified significant climate-related risks or opportunities, and therefore have not had to factor them into access to capital considerations as part of our financial planning process. Please see the risks and opportunities section of this questionnaire for more information. It is important to note that Great-West Lifeco engages with various organizations on climate-related requests and has been ranked highly for carbon management by independent third parties. Specifically, Great-West Lifeco has ranked higher than its North American peers on its CDP submissions, scored in the top quartile among global industry peers on MSCI's "Climate Change Vulnerability Performance" ranking on its ESG Scorecard assessment, and our real estate subsidiary GWL Realty Advisors, which manages our corporate head offices and investment real estate assets in Canada, has consecutively attained the highest, '5-Star' (top quintile), ranking on GRESB (formerly the Global Real Estate Sustainability Benchmark), for the past six years. We believe this performance has enhanced our positioning from a reputational standpoint and possibly indirectly strengthened investor confidence. Assets: While climate-related events do not pose significant inherent risk to or opportunity for our assets, we may sometimes factor climate-related opportunities into our investment of assets under management as part of our financial planning process through a consideration of investments into cleaner energy. For example, in 2022 the General Account had investments of over $6.35 billion in wind, solar, and hydro renewable energy projects, as well as environmentally-minded private equity investments such as a sustainable food and agriculture fund. However, with less than ~2% of our overall asset value tied to investments in the clean energy markets, the growth opportunities are currently not considered substantive to the financial or strategy impact on the business.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

C-FS3.6

(C-FS3.6) Does the policy framework for your portfolio activities include climate-related requirements for clients/investees, and/or exclusion policies?

	Policy framework for portfolio activities that include climate-related requirements for clients/investees, and/or exclusion policies	Explain why the policy framework for your portfolio activities do not include climate-related requirements for clients/investees, and/or exclusion policies
Row 1	Yes, our framework includes both policies with climate-related client/investee requirements and climate-related exclusion policies	<Not Applicable>

C-FS3.6a

(C-FS3.6a) Provide details of the policies which include climate-related requirements that clients/investees need to meet.

Portfolio
Investing (Asset manager)

Type of policy
Policy related to other products and services

Portfolio coverage of policy
0.18

Policy availability
Publicly available

Attach documents relevant to your policy
202205 Climate Focused Fund Flyer May 2022.pdf

Criteria required of clients/investees
Disclosure of Scope 1 emissions
Disclosure of Scope 2 emissions
Disclosure of Scope 3 emissions
Set an emissions reduction target

Value chain stages of client/investee covered by criteria
Direct operations and supply chain

Timeframe for compliance with policy criteria
Complying with criteria is a pre-requisite for business

Industry sectors covered by the policy
Energy
Materials
Capital Goods
Commercial & Professional Services
Transportation
Automobiles & Components
Consumer Durables & Apparel
Consumer Services
Retailing
Food & Staples Retailing
Food, Beverage & Tobacco
Household & Personal Products
Health Care Equipment & Services
Pharmaceuticals, Biotechnology & Life Sciences
Software & Services
Technology Hardware & Equipment
Semiconductors & Semiconductor Equipment
Telecommunication Services
Media & Entertainment
Utilities
Real Estate

Exceptions to policy based on
Industry sector
Products and services
Other, please specify (Materiality of the issue)

Explain how criteria required, criteria coverage and/or exceptions have been determined
The climate focused fund policy is constructed to integrate a decarbonization tilt to the proprietary assets of our subsidiary Irish Life Investment Managers. It excludes fossil fuels through the supply chain and requires companies with higher green activities. The fund has a global broad market exposure that is better aligned with a 1.5C pathway.

The Climate Solutions Range which ILIM have launched in 2022 was $247 million CAD at year end 2022 (portfolio coverage of policy column shows this out of ILIM's firmwide AUM of CAD134.415b). This is expected to grow considerably as we market the fund. ILIM's exclusions policy sets the baseline for investments and is described in more detail in QFS3.6b. ILIM implements an expanded exclusion policy for our Climate Focused funds, in line with our commitment to the green transition:
1 Oil and gas production: Companies with any involvement in oil and gas production, by means of either exploration, production, refining, transportation, or storage, are excluded.
2 Oil and gas supporting products and services: Companies that provide supporting products or services to any of the above activities are also excluded if they derive more than 2.5% of their revenue from said supporting activities.
3 Thermal coal: Thresholds for the exclusion of companies involved in thermal coal extraction and power generation are reduced to capture any level of involvement (above 0% of revenue).
4 Unconventional fossil fuels: Thresholds for the exclusion of companies involved in oil sands and Arctic drilling are reduced to capture any level of involvement (above 0% of revenue).

Portfolio
Insurance underwriting (Insurance company)

Type of policy
Insurance underwriting policy

Portfolio coverage of policy
100

Policy availability
Not publicly available

Attach documents relevant to your policy

Criteria required of clients/investees
Other, please specify (Be within acceptable risk range in the results of climate scenario analysis on the client/investee)

Value chain stages of client/investee covered by criteria
Direct operations only

Timeframe for compliance with policy criteria
Complying with criteria is a pre-requisite for business

Industry sectors covered by the policy
Energy
Materials
Capital Goods
Commercial & Professional Services
Transportation
Automobiles & Components
Consumer Durables & Apparel
Consumer Services
Retailing
Food & Staples Retailing
Food, Beverage & Tobacco
Household & Personal Products
Health Care Equipment & Services
Pharmaceuticals, Biotechnology & Life Sciences
Software & Services
Technology Hardware & Equipment
Semiconductors & Semiconductor Equipment
Telecommunication Services
Media & Entertainment
Utilities
Real Estate

Exceptions to policy based on
<Not Applicable>

Explain how criteria required, criteria coverage and/or exceptions have been determined
Great-West Lifeco has integrated climate-related considerations into the insurance underwriting policies, which includes requirements to conduct scenario modelling on climate-related events and the impact on the entire reinsurance business. These insurance-underwriting policies require Great-West Lifeco to monitor peak perils at the most significant locations in order to assess the likelihood, severity and velocity of extreme weather events, including windstorms, hurricanes and cyclones. The information from these scenario models enables us to assess the potential quantum of losses, which in turn informs our pricing models.

C-FS3.6b

(C-FS3.6b) Provide details of your exclusion policies related to industries and/or activities exposed or contributing to climate-related risks.

Portfolio
Investing (Asset manager)

Type of exclusion policy
Thermal coal
Coal mining
Power from coal
Oil from tar sands
Arctic oil and gas

Year of exclusion implementation
2021

Timeframe for complete phase-out
Already phased out

Application
New business/investment for new projects
New business/investment for existing projects
Other, please specify (ILIM does not do project finance. ILIM applies exclusions across all of their proprietary funds and asset classes, and the exclusions set the baseline for investments. Below this baseline, companies are deemed ineligible for investment.)

Country/Area/Region the exclusion policy applies to
Other, please specify (All regions)

Description
As part of its investment exclusionary policy, Irish Life Investment Managers has specific requirements on climate-related factors, including excluding companies with 25% or more revenue involvement in thermal coal power generation and 10% or more revenue involvement in thermal coal extraction/production, as well as companies with 10% or more revenue involvement in arctic oil or oil sands. Exclusions are already implemented, and are revised at least semi-annually in order to ensure an efficient phase-out that is correctly aligned with global climate goals. On the question around "application" please note that ILIM does not do project finance. ILIM applies exclusions across all of their proprietary funds and asset classes, and the exclusions set the baseline for investments. Below this baseline, companies are deemed ineligible for investment.

C-FS3.7

(C-FS3.7) Does your organization include climate-related requirements in your selection process and engagement with external asset managers?

	Climate-related requirements included in selection process and engagement with external asset managers	Primary reason for not including climate-related requirements in selection process and engagement with external asset managers	Explain why climate-related requirements are not included in selection process and engagement with external asset managers and your plans for the future
Row 1	Yes	<Not Applicable>	<Not Applicable>

C-FS3.7a

(C-FS3.7a) Provide details of the climate-related requirements included in your selection process and engagement with external asset managers.

Coverage
Minority of assets managed externally

Mechanisms used to include climate-related requirements in external asset manager selection
Review investment manager’s climate performance (e.g., active ownership, proxy voting records, under-weighting in high impact activities)
Review investment manager’s climate-related policies

Describe how you monitor and engage with asset managers to ensure investment activities are consistent with your climate strategy
Great-West Lifeco includes climate-related considerations as part of the selection process for external managers. Specifically, external managers are encouraged to have clear policies that align with Great-West Lifeco ESG principles, including with respect to climate change. In addition, through Great-West Lifeco’s investment subsidiary Irish Life Investment Managers (“ILIM”), external manager selection is undertaken through detailed due diligence assessments that cover ESG factors broadly, including specific climate-related criteria.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Is this a science-based target?
No, but we anticipate setting one in the next two years

Target ambition
<Not Applicable>

Year target was set
2014

Target coverage
Country/area/region

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2013

Base year Scope 1 emissions covered by target (metric tons CO2e)
3736

Base year Scope 2 emissions covered by target (metric tons CO2e)
4481

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
8217

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
31

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
14

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
19

Target year
2025

Targeted reduction from base year (%)
27.3

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
5973.759

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
2966

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
2925

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
5892

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
103.644681957935

Target status in reporting year
Achieved

Please explain target coverage and identify any exclusions
This target (2013-2025) applies to Scope 1 and 2 emissions for Great-West Lifeco's owner-occupied in Canada. The target excludes Scope 1 + 2 GHG emissions associated with corporate jet fuel use, backup generator diesel fuel use, and refrigerants. The target includes emissions associated with our property-level electricity, natural gas, and steam consumption at our corporate head office properties.

Plan for achieving target, and progress made to the end of the reporting year
<Not Applicable>

List the emissions reduction initiatives which contributed most to achieving this target
The reductions achieved to-date are in part due to emissions reduction activities (e.g. energy efficiency focused retrofits and behavioral changes) at our corporate head office properties in scope for this target.

Target reference number
Abs 2

Is this a science-based target?
No, but we anticipate setting one in the next two years

Target ambition
<Not Applicable>

Year target was set

2014

Target coverage
Country/area/region

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2013

Base year Scope 1 emissions covered by target (metric tons CO2e)
3736

Base year Scope 2 emissions covered by target (metric tons CO2e)
4481

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
8217

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
31

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
14

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
19

Target year
2036

Targeted reduction from base year (%)
50.4

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
4075.632

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
2966

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
2925

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
5892

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
56.1408693938814

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
This target (2013-2036) applies to Scope 1 and 2 emissions for Great-West Lifeco's owner-occupied in Canada. The target excludes Scope 1 + 2 GHG emissions associated with corporate jet fuel use, backup generator diesel fuel use, and refrigerants. The target includes emissions associated with our property-level electricity, natural gas, and steam consumption at our corporate head office properties.

Plan for achieving target, and progress made to the end of the reporting year
To achieve our target, we have focused on: energy efficiency, building retrofits and tenant behavioral changes at the Great-West Lifeco corporate offices in scope for this target.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Net-zero target(s)

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Not applicable

Target year for achieving net zero
2050

Is this a science-based target?
Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

Please explain target coverage and identify any exclusions
Our net zero greenhouse gas (GHG) emissions target is to be achieved well before 2050 in our operations. Interim targets in line with science are currently in development. There are currently no exclusions identified.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year
As we develop our detailed transition plan, we will determine our approach to neutralizing unabated emissions.

Based on our scenario analysis of reducing financed emissions in line with the IEA 1.5 scenario, we have completed high-level calculations based on current expected carbon prices for purchasing high-quality carbon credits that are SBTi-approved on an annual basis after 2050. We are also reviewing the range of natural and technological climate solutions to neutralize remaining emissions.

Planned actions to mitigate emissions beyond your value chain (optional)

Target reference number
NZ2

Target coverage
Investing (Asset owner)

Absolute/intensity emission target(s) linked to this net-zero target
Not applicable

Target year for achieving net zero
2050

Is this a science-based target?
Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

Please explain target coverage and identify any exclusions
Our net zero greenhouse gas (GHG) emissions target is to be achieved by 2050 for our financed emissions in Great-West Lifeco's General Account. Interim targets in line with science are currently in development. There are currently no exclusions identified.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year
As we develop our detailed transition plan, we will determine our approach to neutralizing unabated emissions.

Based on our scenario analysis of reducing financed emissions in line with the IEA 1.5 scenario, we have completed high-level calculations based on current expected carbon prices for purchasing high-quality carbon credits that are SBTi-approved on an annual basis after 2050. We are also reviewing the range of natural and technological climate solutions to neutralize remaining emissions.

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	2	
To be implemented*	16	736.54
Implementation commenced*	3	0.94
Implemented*	18	27.38
Not to be implemented	2	

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (Elevator retrofit)

Estimated annual CO2e savings (metric tonnes CO2e)
0.18

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1500

Investment required (unit currency – as specified in C0.4)
112000

Payback period
>25 years

Estimated lifetime of the initiative
11-15 years

Comment
This initiative relates to elevator retrofit updates in buildings owned by Lifeco affiliate Irish Life

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Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
4.2

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
36000

Investment required (unit currency – as specified in C0.4)
166260

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
This initiative relates to lighting retrofit updates in buildings owned by Lifeco affiliate Irish Life

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Initiative category & Initiative type

Energy efficiency in buildings	Building Energy Management Systems (BEMS)

Estimated annual CO2e savings (metric tonnes CO2e)
3

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
8528

Investment required (unit currency – as specified in C0.4)
16400

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
Building Management System here refers to the software that monitors and runs the mechanical and electrical plant in the building. Upgrading it with the latest tech can offer simple savings. This relates to upgrades that occurred in buildings owned by Lifeco affiliate Canada Life UK.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
20

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
57072

Investment required (unit currency – as specified in C0.4)
328000

Payback period
4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
This initiative relates to lighting retrofit updates in buildings owned by Lifeco affiliate Canada Life UK

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	At Great-West Lifeco we have a dedicated budget for energy efficiency projects. Each year, an investigation is made into possible energy efficiency projects. The dedicated budget will vary based on the type of projects, return on investment, and overall positive sustainability impact (e.g. GHG emissions reduction potential). While significant investments were made in energy efficiency-related projects, only some of these projects had emission reductions accounted for and reported.
Financial optimization calculations	Financial optimization calculations are conducted on a project-by-project basis by asset management and property management teams for major capital expenditures at Lifeco corporately-owned properties as well as all investment (segregated fund) properties managed by GWL Realty Advisors.
Employee engagement	Employee engagement is a core component of Great-West Lifeco's sustainability strategy. In 2022, we continued the work of the Great-West Lifeco Global Real Estate Sustainability Council and the Corporate Properties Sustainability Working Group (CPSWG). The CPSWG, consisting of experienced property management and building operations employees, helps to direct sustainability initiatives with a particular focus on greenhouse gas (GHG) reductions at our corporate properties. So far, they have concentrated on retrofits focusing on energy, water and waste reduction, and the sharing of best practices and strategies among our facilities. The CPSWG also helps co-ordinate environment-themed employee engagement activities, such as our participation in the longstanding Earth Day and Earth Hour events. Additionally, sustainability initiatives that can lead to emission reductions at the corporate level are run throughout the year as well, including energy awareness programs, waste reduction initiatives (e.g. paper use reduction), and the promotion of sustainable commuting strategies.

C-FS4.5

(C-FS4.5) Do any of your existing products and services enable clients to mitigate and/or adapt to the effects of climate change?
Yes

C-FS4.5a

(C-FS4.5a) Provide details of your existing products and services that enable clients to mitigate and/or adapt to climate change, including any taxonomy used to classify the products(s).

Product type/Asset class/Line of business

Investing	Real estate/Property

Taxonomy or methodology used to classify product
Externally classified using other taxonomy or methodology, please specify (Certification systems for real estate such as LEED, BOMA BEST, and BREAAM)

Description of product
Through our real estate management subsidiaries we have certified select assets under management using certification systems such as LEED, BOMA BEST, and BREAAM, These certifications have requirements and minimum performance thresholds for energy efficiency and therefore, indirectly, GHG emissions.

Product enables clients to mitigate and/or adapt to climate change
Mitigation
Adaptation

Portfolio value (unit currency – as specified in C0.4)
23968295800

% of total portfolio value
2.32

Type of activity financed/insured or provided
Green buildings and equipment

Product type/Asset class/Line of business

Investing	Other, please specify (Fund of funds and fixed income)

Taxonomy or methodology used to classify product
The EU Taxonomy for environmentally sustainable economic activities

Description of product
The Climate Solutions Range which ILIM have launched in 2022 was $247 million CAD at year end 2022 (portfolio coverage of policy column shows this out of Lifeco's Assets Under Administration of CAD $2,498B). This is expected to grow considerably as we market the fund. ILIM's exclusions policy sets the baseline for investments and is described in more detail in QFS3.6b. ILIM implements an expanded exclusion policy for our Climate Focused funds, in line with our commitment to the green transition:
1 Oil and gas production: Companies with any involvement in oil and gas production, by means of either exploration, production, refining, transportation, or storage, are excluded.
2 Oil and gas supporting products and services: Companies that provide supporting products or services to any of the above activities are also excluded if they derive more than 2.5% of their revenue from said supporting activities.
3 Thermal coal: Thresholds for the exclusion of companies involved in thermal coal extraction and power generation are reduced to capture any level of involvement (above 0% of revenue).
4 Unconventional fossil fuels: Thresholds for the exclusion of companies involved in oil sands and Arctic drilling are reduced to capture any level of involvement (above 0% of revenue).

The low carbon product relates to the recent launch of our climate focused fund by our subsidiary – Irish Life Investment Managers (ILIM). The fund integrates a "decarbonization tilt" into the assets improving the alignment of these funds with the climate transition, which includes corporate bonds and emerging market asset classes.

The fund excludes fossil fuels through the supply chain and increases allocations to companies with higher green activities, resulting in a global broad market exposure that is better aligned with a 1.5C pathway.

Product enables clients to mitigate and/or adapt to climate change
Mitigation

Portfolio value (unit currency – as specified in C0.4)
247000000

% of total portfolio value
0.02

Type of activity financed/insured or provided
Green buildings and equipment
Low-emission transport
Renewable energy
Carbon removal
Nature-based solutions
Sustainable agriculture
Other, please specify (The above selections are examples of the types of activities the companies in this fund are likely to be undertaking, and therefore we are financing.)

Product type/Asset class/Line of business

Investing	Other, please specify (fixed income, listed equity, mutual funds and fund of funds)

Taxonomy or methodology used to classify product
Externally classified using other taxonomy or methodology, please specify (several of these funds are classified under the EU taxonomy (Setanta, ILIM funds).)

Description of product
Lifeco subsidiaries had CAD $127 billion in ESG-related investment mandates as at year-end 2022. This group of products include low carbon finance, carbon mitigation and adaptation, sustainable fund options using combinations of classifications such as exclusionary screening, positive screening, and corporate engagement & shareholder action. The coverage of these products is as follows: fifteen ILIM ESG funds and client custom mandates, indices and strategies; five PanAgora sustainability-related strategies that includes their ESG-integrated equity strategies; eleven Putnam ESG and sustainable investing funds, sixteen distinct Canada Life Sustainable Portfolios (Target Date and Target Risk Funds); and Setanta Socially Responsible Investment funds.

Product enables clients to mitigate and/or adapt to climate change
Mitigation
Adaptation

Portfolio value (unit currency – as specified in C0.4)
127000000000

% of total portfolio value
12

Type of activity financed/insured or provided
Green buildings and equipment

Low-emission transport
Renewable energy
Carbon removal
Nature-based solutions
Sustainable agriculture
Other, please specify (The above selections are examples of the types of activities the companies in these ESG products and fund are likely to be undertaking, and therefore we are financing)

Product type/Asset class/Line of business

Insurance	Health

Taxonomy or methodology used to classify product
Internally classified

Description of product
Providing health insurance can allow clients to adapt to climate change by supporting treatment of potential health hazards connected to climate change, such as increased heat waves and increased occurrence and intensity of wildfires impacting air quality. Note the portfolio value is the total investment assets backing Canada GL&H (Group Life & Health) as of 12/31/22 within Lifeco's general account.

Product enables clients to mitigate and/or adapt to climate change
Adaptation

Portfolio value (unit currency – as specified in C0.4)
9441000000

% of total portfolio value
3.55

Type of activity financed/insured or provided
Other, please specify (Providing health insurance can allow clients to adapt to climate change by supporting treatment of potential health hazards connected to climate change, such as increased heat waves and increased occurrence of wildfires impacting air quality.)

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
11979.01

Comment

Scope 2 (location-based)

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
31561.54

Comment

Scope 2 (market-based)

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
30463.29

Comment
The different between Scope 2 (Location-based) and Scope 2 (Market-based) is due to properties in Ireland being serviced by utility companies with electricity fuel mixes that contain a higher percentage of renewable energy when compare to the average Ireland electricity emission factor for the 2013 year. Utility-Specific emission factor were applied under the market-based calculations.

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
200000

Comment
Although we estimated the emissions from our spend data and EPA emissions factors, the data did not come directly from suppliers. EPA emission factors were assigned by supplier category and multiplied by USD spend. The resulting value of around 200 ktCO2 is therefore a broad estimation that takes into consideration our spend categories but not the actual emissions of each distinct supplier. This exercise is helpful to find hotspots in our supply chain with high emissions/spend to engage with. The scope of suppliers is all Canada Life, Empower, and Europe (excluding Putnam) third-party suppliers, pro-rated based on over 80% spend among those entities and over 3000 suppliers.

Scope 3 category 2: Capital goods

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
47.3

Comment
Excludes Investment property and Leased water consumption

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
1806.63

Comment
Excludes Investment property and Leased waste generation

Scope 3 category 6: Business travel

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
8922.44

Comment

Scope 3 category 7: Employee commuting

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 8: Upstream leased assets

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
7431.65

Comment
Includes energy consumption only

Scope 3 category 9: Downstream transportation and distribution

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 10: Processing of sold products

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 11: Use of sold products

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 13: Downstream leased assets

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3 category 14: Franchises

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3: Other (upstream)

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

Scope 3: Other (downstream)

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
0

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
Other, please specify (The Partnership for Carbon Accounting Financials)

C6. Emissions data

C6.1

(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
8861.15

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.2

(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
We have operations where we are able to access electricity supplier emission factors or residual emissions factors. Market-based Scope 2 emissions are calculated but not assured.

C6.3

(C6.3) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
15466.27

Scope 2, market-based (if applicable)
12007

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
Great-West Lifeco purchases renewable and low-carbon electricity from local utilities in Canada, US, UK, and Ireland.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tons CO2e)
200000

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Although we estimated the emissions from our spend data and EPA emissions factors, the data did not come directly from suppliers. EPA emission factors were assigned by supplier category and multiplied by USD spend. The resulting value of around 200 ktCO2 is therefore a broad estimation that takes into consideration our spend categories but not the actual emissions of each distinct supplier. This exercise is helpful to find hotspots in our supply chain with high emissions/spend to engage with. The scope of suppliers is all Canada Life, Empower, and Europe (excluding Putnam) third-party suppliers, pro-rated based on over 80% spend among those entities and over 3000 suppliers.

Capital goods

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
These emissions are from the production of our office buildings assets and infrastructure. When considered in the context of the scope 3 emissions from our investments, these emissions are considered to be immaterial.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
These emissions are from the production of our buildings, assets and infrastructure. When considered in the context of the scope 3 emissions from our investments, these emissions are considered to be immaterial.

Upstream transportation and distribution

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tons CO2e)
11.74

Emissions calculation methodology
Fuel-based method
Other, please specify (The water consumption for each property was multiplied by country or region-specific emissions factors.)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
48

Please explain
The emissions relate to the transport and distribution of products that we purchase for our offices. The emissions we have calculated relate to the distribution of water for consumption in our Canadian and International corporate owner-occupied properties. When considered in the context of the scope 3 emissions from our investments, these emissions are considered to be immaterial.

Waste generated in operations

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tons CO2e)
461.13

Emissions calculation methodology
Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
This includes emissions related to the waste we generate at our Canadian and International owner-occupied properties that is sent to landfill or waste-to-energy plants. When considered in the context of the scope 3 emissions from our investments, these emissions are considered to be immaterial.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
5078.86

Emissions calculation methodology
Fuel-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
This includes emissions generated from both air and ground business travel. When considered in the context of the scope 3 emissions from our investments, these emissions are considered to be immaterial. However there is potential for emissions reductions that could be undertaken or influenced by the company for this source, so the emissions have been deemed relevant.

Employee commuting

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This includes travel by our employees, such as bus, rail and automobile. When considered in the context of the scope 3 emissions from our investments, these emissions are considered to be immaterial.

Upstream leased assets

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tons CO2e)
2742.29

Emissions calculation methodology
Average data method
Other, please specify (Energy data collected from leased properties was multiplied by appropriate emissions factors.)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
77

Please explain
Upstream leased assets are outside of our financial and operational control. These emissions are associated with Great-West Lifeco external (third-party managed) field offices and other leased area for Great-West Life, London Life, and Canada Life employees in Canada. Includes energy consumption only.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not produce a product that results in downstream emissions from transportation and distribution.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not sell products that result in GHG emissions from the processing of sold products.

Use of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not sell products in our business where the use of the product is relevant in the context of emissions.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not sell products in our business where GHG emissions associated with end of life treatment of sold products would be relevant.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The operation of assets that are owned by Great-West Lifeco (acting as lessor) and leased to other entities in the reporting year are already included in scope 1 or scope 2 GHG emissions reporting.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Great-West Lifeco does not own any franchises.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No other upstream emissions are considered material.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No other downstream emissions are considered material.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
5.45e-7

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
24327.42

Metric denominator
unit total revenue

Metric denominator: Unit total
44662000000

Scope 2 figure used
Location-based

% change from previous year
55.79

Direction of change
Increased

Reason(s) for change
Change in physical operating conditions

Please explain
Revenue decreased by 30.7% and year-over-year GHG emissions increased by 8% due to the normalization of operations and occupancy post Covid-19. 2022 was the first year since the pandemic started that didn't have lockdowns or travel restrictions. For GWO, the largest increases were seen for jet fuel (1,771 tCO2e or 768%).

Intensity figure
0.78

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
24327.42

Metric denominator
full time equivalent (FTE) employee

Metric denominator: Unit total
31000

Scope 2 figure used
Location-based

% change from previous year
2.44

Direction of change
Decreased

Reason(s) for change
Other emissions reduction activities
Other, please specify (Employee count increased more than GHG emissions.)

Please explain
Employee count increased by 10.7% and year-over-year GHG emissions increased by 8% due to the normalization of operations and occupancy post Covid-19. 2022 was the first year since the pandemic started that didn't have lockdowns or travel restrictions. For GWO, the largest increases were seen for jet fuel (1,771 tCO_2e or 768%). However, GHG emissions did not increase as much as they would have if Lifeco did not implement several emission reduction initiatives at Lifeco office locations. These initiatives included lighting and elevator retrofits, among others. Therefore, the reasons for the change in the decrease of FTE intensity metric are both the fact that employee count increased more that GHG emissions, and the emissions reduction activities (which contributed to employee count increasing more than GHG emissions).

Intensity figure
0.00212

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO_2e)
24327.42

Metric denominator
square foot

Metric denominator: Unit total
5043793

Scope 2 figure used
Location-based

% change from previous year
8.01

Direction of change
Increased

Reason(s) for change
Change in physical operating conditions

Please explain
There was no change in area. Year-over-year GHG emissions increased by 8% due to the normalization of operations and occupancy post Covid-19. 2022 was the first year since the pandemic started that didn't have lockdowns or travel restrictions. For GWO, the largest increases were seen for jet fuel (1,771 tCO_2e or 768%).

C7. Emissions breakdowns

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?
Yes

C7.7a

(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Subsidiary name
Canada Life Assurance Company

Primary activity
Please select

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
5297

Scope 2, location-based emissions (metric tons CO2e)
2940

Scope 2, market-based emissions (metric tons CO2e)
2921

Comment

Subsidiary name
Canada Life UK

Primary activity
Please select

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
562

Scope 2, location-based emissions (metric tons CO2e)
755

Scope 2, market-based emissions (metric tons CO2e)
755

Comment

Subsidiary name
Irish Life

Primary activity
Please select

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
1760

Scope 2, location-based emissions (metric tons CO2e)
1917.68

Scope 2, market-based emissions (metric tons CO2e)

Comment

Subsidiary name
Empower

Primary activity
Please select

Select the unique identifier(s) you are able to provide for this subsidiary
Please select

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
1243

Scope 2, location-based emissions (metric tons CO2e)
9853.2

Scope 2, market-based emissions (metric tons CO2e)
8330.47

Comment

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	280.37	Decreased	1.24	Electricity usage decreased when compared to 2021, including electricity coming from renewable sources. While there was less electricity coming from renewable sources when compared to 2021, Lifeco's renewable energy consumption still resulted in an avoidance of 280.37 tCO2e. Calculation is as follows: (-280.37/22,523)*100 = -1.24%
Other emissions reduction activities	27.375	Decreased	0.12	In 2022, emissions decreased 27.38 tCO2e to account for the estimated emissions saved by the UK and Irish projects on lighting/elevator/building automation retrofits in 2022. Calculation is as follows: (-27.38/22,523)*100 = -0.12%
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	1833.33	Increased	8.14	Since travel restrictions were lifted in 2022 post Covid-19, there were increases in the usage of the corporate jet and company vehicles resulting in emissions increases of 1,771 tCO2e and 63 tCO2e respectively This amounted to 1,833 tCO2e. Calculation is as follows: (1833/22,523)*100 = 8.14%
Change in methodology	110.86	Decreased	0.49	Emission factors changes resulted in a reduction of 110.86 tCO2e. Calculation is as follows: (-111/22,523)*100 = -0.49%
Change in boundary		<Not Applicable>		
Change in physical operating conditions	1905.39	Decreased	8.46	Weather and occupancy changes in the Canadian and International owner-occupied properties resulted in a net decrease in emissions of 1,905 tCO2e largely from reductions in electricity consumption. Calculation is as follows: (-1905/22,523)*100 = -8.46%
Unidentified	2151.12	Increased	9.55	Once all other possible analyses had been completed, the remaining change, that cannot be accounted for was 2151 tCO2e. It is possible this may be due to weather and occupancy changes, or emissions reductions activities, however this analyses cannot be completed at this time. Calculation was as follows: (2151/22,523)*100 = 9.55%
Other	144.38	Increased	0.64	An increase in back up fuel and refrigerant usage resulted in an emissions increase of 144 tCO2e. Calculation is as follows: (144/22,523)*100 = 0.64%

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	30448.7	30448.7
Consumption of purchased or acquired electricity	<Not Applicable>	28525.12	13300.38	41825.5
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	8665.15	8665.15
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	28525.12	52414.24	80939.35

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Canada

Consumption of purchased electricity (MWh)
26479.73

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
8665.15

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
35144.88

Country/area
United States of America

Consumption of purchased electricity (MWh)
18626.32

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
18626.32

Country/area
United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)
3904.23

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
3904.23

Country/area
Ireland

Consumption of purchased electricity (MWh)
5476.41

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
5476.41

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Other, please specify (Energy Use Intensity)

Metric value
8.57

Metric numerator
kWh

Metric denominator (intensity metric only)
ft2

% change from previous year
2.2

Direction of change
Decreased

Please explain
Energy Intensity decreased by 0.19 ekWh/ft2 as a result of reductions in electricity usage across all GWO portfolios. These decreases can be attributed to several factors including weather, and continued efforts by GWO to make improvements to their operations.

Description
Energy usage

Metric value
255030.49

Metric numerator
MWH

Metric denominator (intensity metric only)
ft2

% change from previous year
2.2

Direction of change
Decreased

Please explain
Energy usage decreased by 5,777 MWH as a result of reductions in electricity usage across all GWO portfolios. These decreases can be attributed to several factors including, weather, and continued efforts by GWO to make improvements to their operations.

Description
Other, please specify (Water Consumption)

Metric value
647665.27

Metric numerator
m3

Metric denominator (intensity metric only)

% change from previous year
11.9

Direction of change
Increased

Please explain
Water consumption increased by 69,091 m3 as a result of occupants gradually returning to offices.

Description
Other, please specify (Water Use Intensity)

Metric value
0.02

Metric numerator
m3

Metric denominator (intensity metric only)
ft2

% change from previous year
12

Direction of change
Increased

Please explain
Water Use Intensity increased by 0.002 m3/ft due to occupants gradually returning to offices.

Description
Waste

Metric value
2836.47

Metric numerator
metric tonnes

Metric denominator (intensity metric only)

% change from previous year
18.1

Direction of change
Increased

Please explain
Landfill waste generation increased by 434 metric tonnes, due primarily to increases in Canada of 400 tonnes. This increase was due to higher office attendance associated with the lift of restrictions post Covid-19.

Description
Other, please specify (Waste Diversion Rate)

Metric value
52

Metric numerator
%

Metric denominator (intensity metric only)

% change from previous year
0.7

Direction of change
Decreased

Please explain
The waste diversion rate decreased slightly due to an overall increase in waste to landfill and recycling but a decrease in waste to energy.

Description
Other, please specify (Waste to Energy (tonnes))

Metric value
123.44

Metric numerator
metric tonnes

Metric denominator (intensity metric only)

% change from previous year
25.9

Direction of change
Decreased

Please explain
Waste to Energy generation decreased by 43 metric tonnes, due to a decrease from the Canada Life UK properties of 75.0 tonnes.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf

Page/ section reference
Please see pages 76-84 for details on the limited level assurance statement from PwC (e.g., scope and subject matter, independence and quality control, conclusions etc.).

Relevant standard
ISAE 3410

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf

Page/ section reference
Please see pages 76-84 for details on the limited level assurance statement from PwC (e.g., scope and subject matter, independence and quality control, conclusions etc.).

Relevant standard
ISAE 3410

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf

Page/section reference
Please see pages 76-84 for details on the limited level assurance statement from PwC (e.g., scope and subject matter, independence and quality control, conclusions etc.).

Relevant standard
ISAE 3410

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Investments

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf

Page/section reference
Please see pages 76-84 for details on the limited level assurance statement from PwC (e.g., scope and subject matter, independence and quality control, conclusions etc.). Note that financed emissions for investment properties were assured, which accounts for 100% of the financed emissions reported as an asset owner in Q14.1a, and ~1% of the financed emissions reported as an asset manager in Q14.1a.

Relevant standard
ISAE 3410

Proportion of reported emissions verified (%)
1

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Year on year change in emissions (Scope 3)	ISAE 3410	PwC verified the year on year change in emissions for Scope 1, Scope 2, Scope 1 & 2 (combined), and Scope 3 GHG emissions. See attached PwC Assurance Statement (pg.83). Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf
C6. Emissions data	Year on year change in emissions (Scope 1)	ISAE 3410	PwC verified the year on year change in emissions for Scope 1, Scope 2, Scope 1 & 2 (combined), and Scope 3 GHG emissions. See attached PwC Assurance Statement (pg.83). Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf
C6. Emissions data	Year on year change in emissions (Scope 2)	ISAE 3410	PwC verified the year on year change in emissions for Scope 1, Scope 2, Scope 1 & 2 (combined), and Scope 3 GHG emissions. See attached PwC Assurance Statement (pg.83). Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	ISAE 3410	PwC verified the year on year change in emissions for Scope 1, Scope 2, Scope 1 & 2 (combined), and Scope 3 GHG emissions. See attached PwC Assurance Statement (pg.83). Great West Lifeco Inc. Report 2022 GHG Statement for CDP and Verifier Opinion.pdf

C11. Carbon pricing

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price

Shadow price

How the price is determined

Alignment with the price of a carbon tax

Objective(s) for implementing this internal carbon price

Navigate GHG regulations
Stakeholder expectations
Stress test investments

Scope(s) covered

Scope 1
Scope 2
Scope 3 (downstream)

Pricing approach used – spatial variance

Differentiated

Pricing approach used – temporal variance

Evolutionary

Indicate how you expect the price to change over time

Carbon tax/pricing implications on utility costs have been assessed for the Canadian portfolio (Lifeco's Scope 1 and 2 via offices, and Scope 3 via investment properties in Category 15). The GHG emissions inventory report for GWLRA, includes forward-looking carbon pricing assessments based on the government of Canada's commitment to carbon pricing (the Greenhouse Gas Pollution Pricing Act). For example, carbon taxes are currently targeted at a rate of between $20.4/tonne (QC) to $45/tonne (BC), with the aim of $50/tonne across the country by 2022, although some exceptions may apply as provinces implement their own federally-approved programs. Under the Federal proposal, the government would increase the carbon price by $15 per year starting in 2023 rising to $170 per tonne in 2030. The forward-looking carbon pricing analysis (transition risk assessment) includes a scenario of pricing at $170/tonne CO2e by 2030.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

20

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

170

Business decision-making processes this internal carbon price is applied to

Operations
Risk management

Mandatory enforcement of this internal carbon price within these business decision-making processes

No

Explain how this internal carbon price has contributed to the implementation of your organization’s climate commitments and/or climate transition plan

GWL Realty Advisors, a wholly-owned asset management subsidiary of Great-West Lifeco, uses carbon prices for informational purposes – to determine potential future operating cost increases (e.g., utility expenditure) at properties within its Canadian managed portfolio. These prices are applied to all owner-occupied and investment properties in Canada and assessed under different pricing scenarios, reflecting carbon prices that are considered necessary to achieve various carbon reduction and carbon neutrality targets set forth by the Government of Canada. Together, these shadow price scenarios provide insight into possible future operating expenses and associated operational and financial risks across the real estate portfolio. On an ad hoc basis, GWL Realty Advisors considers implicit carbon prices during capital budgeting and expenditure on energy retrofits for Great-West Lifeco’s owner-occupied and investment properties. These prices help determine the true financial payback, and point to the efficacy of conservation initiatives and retrofits, that span more than 1-2 years.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our customers/clients

Yes, our investees

Yes, other partners in the value chain

C-FS12.1b

(C-FS12.1b) Give details of your climate-related engagement strategy with your clients.

Type of clients

Clients of Asset Managers (Asset owners)

Type of engagement

Engagement & incentivization (changing client behavior)

Details of engagement

Engage with clients and potential clients, particularly those with the most GHG-intensive and GHG-emitting activities, on their decarbonization strategies and net-zero transition pathways

% client-related Scope 3 emissions as reported in C-FS14.1a

31.25

Portfolio coverage (total or outstanding)

2

Rationale for the coverage of your engagement

Engagement targeted at clients with the highest potential impact on the climate

Impact of engagement, including measures of success

Lifeco's subsidiary ILIM engaged with its institutional clients over the course of 2022 in the following ways;

- Delivered Ireland's 1st Net Zero Education Course for Trustees of retirement pension schemes and their advisers.
- Enhanced its client reporting to provide transparency over the % of total portfolio and specific asset classes which were invested in strategies which integrated ESG (and specifically climate change),
- Delivered a number of information and update bulletins for institutional clients on topics such as Net Zero, TCFD and responsible investing generally.

ILIM also engaged on a bespoke basis with our Institutional Strategic Partners to support and enable them on incorporating ESG and climate change considerations into their portfolios. ILIM undertook targeted engagement focussed on their largest institutional clients (by AUM) across both Defined Benefit and Defined Contribution Schemes. These schemes also have the highest exposure to equity, corporate fixed income and property allocations which have the greatest potential impact on climate. ILIM measures the impact of engagement in 3 ways;

- Through the % of our total AUM invested in ESG integrated assets;
- Through the overall impact (assessed under TCFD) of the total AUM invested in ESG integrated assets versus the total AUM invested in NON ESG integrated assets; and
- Through the overall impact of our total AUM on prescribed environmental (Climate related) metrics specified under SFDR as part of the Principal Adverse Impact regime.

Through this process, in 2022 ILIM saw ESG assets under management increase from 40% (€39bn) to 49% (€48bn) of total AUM. ILIM is a leader in Ireland in providing Educational courses and partnering with their Asset Owners clients on their sustainability transition for their portfolios. They do this through providing a full breadth of ESG Integrated solutions as well as providing the flexibility for the largest asset owner clients to adopt a bespoke approach. The approach to calculate portfolio coverage of the engagement is to take 15% of ILIM's AUM, equivalent to the AUM for their largest Defined Benefit institutional clients. The amount is then calculated over Lifeco's entire AUM of CAD$1,033bn.

Type of clients

Clients of Asset Managers (Asset owners)

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate clients about your climate change performance and strategy

% client-related Scope 3 emissions as reported in C-FS14.1a

1.35

Portfolio coverage (total or outstanding)

2

Rationale for the coverage of your engagement

Engagement targeted at clients with the highest potential impact on the climate

Impact of engagement, including measures of success

Every quarter, GWL Realty Advisors engages with clients of its segregated real estate funds (GWL Canadian Real Estate Fund No. 1 and London Life Real Estate Fund – managed by GWL Realty Advisors). The impact of the engagement is to educate customers about the fund's climate performance and strategy. Measures of success include having an ESG section in 25% of the quarterly fund bulletins and annual report, which are shared directly with clients and made publicly available online. In addition, the Canadian Real Estate Fund is directed towards institutional investors and the quarterly bulletin is supplemented with direct meetings with larger investors in the fund. These meetings include discussion of ESG and climate-related performance of the fund and targeted at the largest investors. In Q3 2022, the fund bulletin included ESG results related to GRESB on the first page; overall 60% of quarterly fund bulletins and the annual report contained an ESG section.

Type of clients

Clients of Asset Managers (Asset owners)

Type of engagement
Education/information sharing

Details of engagement
Run an engagement campaign to educate clients about your climate change performance and strategy

% client-related Scope 3 emissions as reported in C-FS14.1a
1.35

Portfolio coverage (total or outstanding)
2

Rationale for the coverage of your engagement
Non-targeted engagement

Impact of engagement, including measures of success
On an ongoing basis, GWL Realty Advisors conducts tenant and resident engagement (satisfaction) surveys to inform our continuous improvement efforts at both our commercial and multi-residential properties under management. For example, GWL Realty Advisors engages to share and collect information on sustainability-related metrics such as green building certification status, energy performance (e.g., energy reductions), water use efficiency, waste production and GHG emissions of the property. We have engaged with ~10,000 leases (e.g. one representative from each of ~10,000 leases) out of a total number of leases of ~12,000 at the time the survey was conducted, across all our buildings. Within the real-estate asset class this reach out covers approximately 85% of leases, which represents 4% of the financed emissions (asset owner) reported in 14.1a.

Property and asset management teams, as required, address issues and follow-ups pertaining to the surveys. By engaging with the occupants of its buildings, GWL Realty Advisors is able to contribute to the continuous improvement of the efficiency of its assets under management, for example, engagement by GWL Realty Advisors staff can lead to understanding tenants ESG and sustainability needs better, resulting in further investment in efficiency and emission reduction measures (e.g., end of trip facilities for bicycles to facilitate and encourage alternative commuting vehicles). The impact of the engagement is the reduction of GHG emissions achieved across the GWL Realty Advisors office and multi-residential portfolio. Success is measured through tenant engagement scores (rated on a 1-10 scale), with the objective to improve or meet the previous survey's scores. Please note these Scope 3 emissions are specifically associated with the Asset Owner category of FSQ14.1a which covers investment properties in the Lifeco General Account.

C-FS12.1c

(C-FS12.1c) Give details of your climate-related engagement strategy with your investees.

Type of engagement
Engagement & incentivization (changing investee behavior)

Details of engagement
Exercise active ownership
Support climate-related shareholder resolutions
Support climate-related issues in proxy voting
Implement a stewardship and engagement strategy, with a clear escalation and voting policy, that is consistent with our ambition for all assets under management to achieve net zero emissions by 2050 or sooner
Encourage better climate-related disclosure practices among investees
Encourage investees to set a science-based emissions reduction target

% scope 3 emissions as reported in C-FS14.1a/C-FS14.1b
18.81

Investing (Asset managers) portfolio coverage
1.72

Investing (Asset owners) portfolio coverage
0

Rationale for the coverage of your engagement
Engagement targeted at investees with the highest potential impact on the climate

Impact of engagement, including measures of success
Through Great-West Lifeco's subsidiary, Irish Life Investment Managers (ILIM), we engage with investee companies on climate-related risks, opportunities, policy requirements and those with the highest potential impact on the climate. In 2022, ILIM's measure of success for engagements with investees was to increase the number of direct and collaborative engagements on climate above the 2021 number of 833; in 2022 it rose to 923. On the collaborative front, ILIM increased the number of climate change engagements: as part of the CDP Non-Disclosure Campaign, ILIM co-signed 810 climate change engagement letters in 2021, and this number expanded to 847 in 2022. ILIM also uses an external engagement service offered by Sustainalytics focused on corporate engagement with companies that form part of the public equity and corporate fixed income holdings of its clients, and through this joined 13 calls with investee companies on the theme of "Climate Change – Sustainable Forests & Finance".
The impact of the engagement is as follows:
o As part of the net-zero focused engagements supported by Glass Lewis with 25 priority companies across six material sectors, ILIM is covering circa 15% of its Scope 1 and Scope 2 financed emissions via direct engagements.
O ILIM collaborates with the Climate Action 100+ to engage with investees with the highest potential impact on the climate, focusing on 80% of the worlds largest GHG emitters to take action on climate change. In 2022, ILIM participated in 11 strategy calls with collaborating investors, one call with senior management from Southern Company and one call with Kinder Morgan's President who will take over the CEO role in 2023. The results of these engagements include:
> In 2022, Southern Company released its first trade association disclosure report and first Just Transition report, announced coal plant closures and enhanced reporting including CDP.
> Valero has created a new Sustainability & Public Policy Committee, added climate risk oversight to the Audit Committee, and enhanced climate disclosures.
o ILIM also engages investees to promote climate-related disclosure. In 2022, ILIM engaged with the CDP Non-Disclosure Campaign to drive further corporate transparency around climate change. Disclosure rate increased from 25% in 2021 to 27% in 2022. This engagement represents ~60.2% coverage of the Scope 1 and 2 financed emissions for ILIM (which covers corporate bonds and equity).

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Other Partners - Community Organizations

International Institute for Sustainable Development (IISD):
We are engaged with IISD to promote research and knowledge - understanding the risk of climate change and how we can anticipate the risk to increase community resilience, our support has included: coordinated research, advice, and policy development. In 2022, we supported IISD's climate adaptation strategic focus in Canada – providing accelerating solutions for a stable climate, sustainable resources, and fair economies with a focus on driving action on climate adaptation in Canada, leveraging IISD's global and Prairies-focused expertise.

Nature Conservancy of Canada (NCC):
We are engaged with NCC as a national sponsor to support conservation, public engagements, and community partnerships on the topic of sustainability and climate change. With our support of Big Backyard BioBlitz, we help provide Canadians with an opportunity to learn about the effects of climate change and sustainability. Participants in the weeklong program are encouraged to upload images of wild plants, animals, and insects around their home, to be reviewed by a global network of scientists. The data collected help inform knowledge about species and impacts of climate change. In 2022, Canadians noted a record number, with over 53,000 observations made and 5,323 species identified. In addition to educating our employees on sustainability, our engagement has helped the NCC complete nearly 600 new conservation projects completed across Canada, connect more than 300,000 Canadians, and nearly 20,000 volunteers cared for nature since our relationship began.

Earth Rangers:

We are engaged with **Earth Rangers** as a national sponsor to support educating children and their families about biodiversity & climate change, inspiring them to adopt sustainable behaviours. In 2022, we supported Project 2050, a program inspired by Canada's goal of achieving net-zero emissions by 2050. The program challenges children to adopt eco-friendly habits like turning of a light, unplugging electronics, or having a meatless meal. Through a Kickstarter-style platform, challenges are built around the top offenders for GHG emissions as identified by Environment & Climate Change Canada, such as transportation, electricity, and waste. For each challenge, there is a series of habits that children adopt to reach their goal. Earth Rangers help ensure equal program access and participation from diverse groups and communities through partnership with representative organizations of Indigenous Peoples, Francophone Canadians, immigrant/refugee Canadians, and Canadians with disabilities. In 2022, Project 2050 encouraged more than 14,000 children to log nearly 430,000 positive climate habits.

ReForest London:

Since 2009, we've been a Lead Sponsor and Canada Life employees have planted thousands of trees on our own property and in parks across the city of London, ON, demonstrating our commitment to a greener, healthier city. In addition to our ongoing support of ReForest programs, our capital contribution in 2022 supports the city's first environmental centre, driving sustainability in the community. Westminster Ponds Centre will bring together organizations focused on climate action to create sustainable communities and economies through programming, services and education.

Commuter Challenge:

We are engaged with Green Action Centre for the National Commuter Challenge with our employees across Canada. A friendly annual competition between Canadian cities and workplaces, that encourages Canadians to leave their cars at home. Rewards walking, cycling, carpooling/ride-sharing, taking transit and telecommuting and celebrates active and sustainable transportation. In 2022 more than 506 workplaces participated, with 4206 individuals registered resulting in 90 822 Kg CO2 avoided by eliminating 456,223 kms travelled. More than 330 Canada Life employees participation across all locations.

MicroHabitat created and managed a 500 sq. ft. urban farm rooftop garden for us at 330 University Ave. in Toronto. The garden grew hundreds of edible plants, including vegetables like tomatoes, peppers, eggplants, onions, radishes, carrots, as well as herbs and flowers. We donated nearly 300 lb. of produce to local foodbanks and 30 meals to **Breakfast Club of Canada**.

Microsoft and Computers for Success Canada encourages Canadian CEOs to help bridge the digital divide for underserved communities by donating their organization's end-of-cycle devices to the Government of Canada's Computers for Schools Plus program.Since signing on in September 2020, we've donated nearly 2,000 laptops in Manitoba and Ontario. In addition to not producing e-waste, our donation has resulted in 1.2 million kg of sequestered carbon emissions, 627,892 kg of carbon reduction, 2.4 million kg of resource preservation and saved 377 million litres of water.

C-FS12.2

(C-FS12.2) Does your organization exercise voting rights as a shareholder on climate-related issues?

	Exercise voting rights as a shareholder on climate-related issues	Primary reason for not exercising voting rights as a shareholder on climate-related issues	Explain why you do not exercise voting rights on climate-related issues
Row 1	Yes	<Not Applicable>	<Not Applicable>

C-FS12.2a

(C-FS12.2a) Provide details of your shareholder voting record on climate-related issues.

Method used to exercise your voting rights as a shareholder
Exercise voting rights through an external service provider

How do you ensure your shareholder voting rights are exercised in line with your overall strategy or transition plan?
Vote tracking
Publish requirements of external service providers in relation to climate-related issues
Review external service provider's climate-related policies
Include climate-related requirements in service provider mandates

Percentage of voting disclosed across portfolio
13

Climate-related issues supported in shareholder resolutions
Climate transition plans
Climate-related disclosures
Aligning public policy position (lobbying)
Emissions reduction targets
Board oversight of climate-related issues

Do you publicly disclose the rationale behind your voting on climate-related issues?
<Not Applicable>

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
Yes, we engage directly with policy makers
Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?
Yes

Attach commitment or position statement(s)
ILIM_our-climate-action-pledge-and-reaching-net-zero.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
At Great-West Lifeco, an annual review of our direct and indirect activities that influence public policy, including both financial and non-financial engagements with voluntary sector organizations, is conducted by our Community Relations Department to ensure relevancy, efficacy and consistency of approach and strategy. Where relevant, this process includes a review of our direct and indirect activities that influence public policy, which are assessed for consistency with our overall climate change strategy. This includes our support of organizations addressing climate change strategies and sustainability, including finding practical solutions to address energy and carbon management issues at a policy, business and personal level. New opportunities to support such endeavours are measured against annual strategic objectives. With respect to our investment subsidiaries, specific internal processes exist to ensure their engagement activities are consistent with their climate strategies as described in their respective engagement and stewardship reports. For example, ILIM published pledges which commit to advocate for climate action with policy makers, investors, and industry groups.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Enhanced Disclosures by Certain Investment Advisers and Investment Companies about Environmental, Social and Governance Investment Practices (File No. S7-17-22) and Investment Company Names (File No. S7-16-22)

Category of policy, law, or regulation that may impact the climate
Low-carbon products and services

Focus area of policy, law, or regulation that may impact the climate
Sustainable finance

Policy, law, or regulation geographic coverage
National

Country/area/region the policy, law, or regulation applies to
United States of America

Your organization's position on the policy, law, or regulation
Support with minor exceptions

Description of engagement with policy makers
Through our subsidiary, Putnam, we sent a letter on August 16, 2022 with thoughts and suggestions on the Securities and Exchange Commission (SEC) proposal Enhanced Disclosures by Certain Investment Advisers and Investment Companies about Environmental, Social and Governance Investment Practices (File No. S7-17-22) and Investment Company Names (File No. S7-16-22). In particular there were concerns about the definition and specific disclosure requirements for "Integration Funds," and that the proposed disclosure table for "ESG-Focused Funds" is overly simplistic and runs the risk of streamlining disclosure to the point that it is no longer useful to shareholders, or gives shareholders a false sense of comparability. Nearly a dozen pages of recommendations were provided in the letter. Overall it voices support for the SEC's goal of providing controls in a rapidly growing field with an evolving landscape, while sharing thoughts that there are areas for improvement in order to develop a useful framework for funds and shareholders that will work in the long-term.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
In particular there were concerns about the definition and specific disclosure requirements for "Integration Funds," and that the proposed disclosure table for "ESG-Focused Funds" is overly simplistic and runs the risk of streamlining disclosure to the point that it is no longer useful to shareholders, or gives shareholders a false sense of comparability. Nearly a dozen pages of recommendations were provided in the letter.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
<Not Applicable>

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (American Academy of Actuaries)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The American Academy of Actuaries supports knowledge and raises awareness among policymakers and the public at large of the increasing risks from extreme weather events. It aims to evaluate and help manage exposure to these risks from an insurance perspective, by combining current climate science knowledge with actuarial experience.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (REALPAC (Real Property Association of Canada))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
REALPAC recognizes the significant economic, environmental, social, governance (EESG) impact of Canada's commercial real estate sector, and the need for an industrydriven approach toward supporting national and provincial strategies on greenhouse gas reduction (climate change action), the importance of reasoned discourse with political and policy officials, and the value of persuasive arguments for sustainable economic growth. The Association also recognizes the need for industry-wide "green"
benchmarking data and shared best practices and is working with its constituents and its national and international counterparts to help to responsibly ensure the sector is well positioned for a sustainable future. As members of REALPAC, as well as REALPAC's Environmental, Social and Governance (ESG) Committee, we support initiatives to increase awareness on energy improvements and increase government incentives towards energy efficient existing and new commercial real estate.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (Building Owners and Managers Association (BOMA) and its regional chapters)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
BOMA is the voice of the Canadian commercial real estate industry, addressing issues of national concern, and promotes excellence in the industry through information, education advocacy and recognition, including on issues of carbon and energy efficiency. BOMA Canada implements timely, responsible and consistent policy positions on issues of critical importance to the Canadian commercial real estate industry (including climate change-related legislation). Through our Board membership with BOMA, we support initiatives to increase awareness of energy and climate change issues, and incentives to increase building energy and carbon efficiency investments.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (Green Building Council (CaGBC))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The CaGBC mission is to "Lead and accelerate the transformation to high-performing, healthy green buildings, homes and communities throughout Canada". This includes the adoption of green building practices that ultimately lead to reduced greenhouse gas emissions. The CaGBC is working with federal, provincial and municipal leaders and government officials to support the development and implementation of green building policies and sustainability practices across Canada and is working with CaGBC members and stakeholders to set and report against ambitions targets and action plans that will contribute to Paris Agreement goals. Through our membership with the CaGBC, we support initiatives to increase the adoption of green building practices, participation in green building certification systems, and incentives to increase energy and carbon efficiency investments.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (Boston Association of Institutional Investors)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The Association of Institutional investors is a member led organization of institutional investment advisors that represents the interests of investors and strives to advance good practices and promote fair and efficient financial markets through open engagement with policy makers and others. The ESG working group is focused on advancing knowledge and awareness for investors on environmental, social and governance factors. Lifeco's asset management affiliate Putnam has been a member of the BAII since 2012 and chaired the ESG working group 2018-2020.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status
Complete

Attach the document
Great-West_Lifeco_-_2022_annual_report.pdf

Page/Section reference
p.15-16 as referenced on the document page.

Content elements
Other metrics

Comment
2022 ESG Highlights in Lifeco's Annual Report include $127 billion in ESG-related strategies managed by Lifeco asset management affiliates and $6.35+ billion* invested in wind, solar, hydroelectric renewable energy projects (*this figure also includes environmentally-minded private equity investments such as a sustainable food and agriculture fund.)

Publication
In voluntary communications

Status
Complete

Attach the document
ILIM_our-climate-action-pledge-and-reaching-net-zero.pdf

Page/Section reference
Entire document (p.1-8)

Content elements
Strategy
Emission targets
Other metrics

Comment
Lifeco subsidiary Irish Life Investment Managers released information on their Climate Action Pledge and strategy for reaching Net Zero.

Publication
In voluntary communications

Status
Underway – previous year attached

Attach the document
ILIM tcfd-2021-report.pdf

Page/Section reference
Entire document

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Other metrics

Comment
Lifeco subsidiary Irish Life Investment Managers released their 2021 TCFD Report in 2022. Irish Life Investment Manager's 2022 TCFD report is underway.

Publication
Other, please specify (Investee engagement & stewardship report)

Status
Complete

Attach the document
ILIM_responsible-investing-annual-review-2022.pdf

Page/Section reference
Entire document

Content elements
Strategy
Other metrics
Other, please specify (Investee engagements)

Comment
Lifeco subsidiary Irish Life Investment Managers released their 2022 Responsible Investing Annual Review, covering investee engagement on ESG topics with climate change as one of four thematic priorities.

Publication
In voluntary communications

Status
Underway – previous year attached

Attach the document
Canada Life UK-tcfd-report-2021.pdf

Page/Section reference
Entire document

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Lifeco subsidiary Canada Life UK released their 2021 TCFD Report in 2022. Canada Life UK's 2022 TCFD report is underway.

Publication
In other regulatory filings

Status
Complete

Attach the document
CLAM Stewardship & Engagement Report 2022.pdf

Page/Section reference
Entire document

Content elements
Governance
Strategy
Other metrics
Other, please specify (Investee engagements)

Comment
Lifeco subsidiary Canada Life UK released their 2022 Stewardship and Engagement Report, covering investee engagement on ESG topics with climate change as a priority. It is noted as a regulatory filing because to comply with regulations, Canada Life Asset Management UK has to produce a stewardship report or explain why they don't.

Publication
Other, please specify (Investee engagement & stewardship report)

Status
Complete

Attach the document
Putnam Engagement and Stewardship Report Dec 2022.pdf

Page/Section reference
Entire document

Content elements
Strategy
Other metrics
Other, please specify (Investee engagements)

Comment
Lifeco subsidiary Putnam released their 2022 Stewardship and Engagement Report, covering investee engagement on ESG topics with climate change as a material theme.

Publication
In voluntary sustainability report

Status
Complete

Attach the document
Putnam CSR and Sustainable Investing Report 2022.pdf

Page/Section reference
Section 1 (Sustainable Investing), 2 (Sustainability strategy, engagement and stewardship), and 4 (Sustainability in our workplace)

Content elements
Strategy
Other metrics

Comment
Lifeco subsidiary Putnam released their 2022 Corporate Sustainability Report, including sustainability actions taken in operations and investing.

Publication
In voluntary communications

Status
Underway – previous year attached

Attach the document

Setanta-TCFD-Report-2021-Final.pdf

Page/Section reference
Entire document

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures

Comment
Lifeco subsidiary Setanta released their 2021 TCFD Report in 2022. Setanta's 2022 TCFD report is underway.

Publication
In voluntary communications

Status
Complete

Attach the document
GWLRA-Annual Review-2022.pdf

Page/Section reference
Page 8, 10, 24-29

Content elements
Strategy
Risks & opportunities
Emissions figures
Other metrics

Comment
Lifeco subsidiary GWL Realty Adviser released their 2022 Annual Review which includes information on climate change.

Publication
In voluntary communications

Status
Complete

Attach the document
Putnam Sustainability and Impact Report for the Putnam Sustainable Future Fund and Putnam Sustainable Leaders Fund.pdf

Page/Section reference
Entire document

Content elements
Emissions figures
Other metrics

Comment
Lifeco subsidiary Putnam released their Sustainability and Impact Report for the Putnam Sustainable Future Fund and Putnam Sustainable Leaders Fund.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	CDP Signatory Climate Action 100+ Institutional Investors Group on Climate Change (IIGCC) Net Zero Asset Managers initiative Principle for Responsible Investment (PRI) Task Force on Climate-related Financial Disclosures (TCFD) Other, please specify (UKSIF, Sustainable Roundtable)	(1) Great-West Lifeco is an official Supporter of the Financial Stability Board's TCFD recommendations, recognizing the importance of climate-related disclosures with respect to governance, strategy, risk, and metrics and targets. Furthermore, our asset management subsidiary, Canada Life Asset Management UK, also became an official TCFD supporter in 2022. (2) Great-West Lifeco' asset management subsidiaries are signatories to the UNPRI, including Irish Life Investment Managers (ILIM) (since 2010); Putnam Investments (since 2011); PanAgora Asset Management (since 2011) and Setanta Asset Management. (3) Great-West Lifeco's asset management subsidiaries, ILIM and Canada Life Asset Management UK are part of the Climate Action 100+, focused on engaging the top 100 global Greenhouse gas emitters to disclose their transition plans in alignment with the Paris Agreement. (4) Great-West Lifeco's asset management subsidiaries ILIM, Canada Life Asset Management UK, and Putnam are CDP Signatories and part of the non-disclosure campaign – a group of 288 investors who focus on companies that did not provide sustainability and climate-related disclose representing some of the biggest emitters on the largest exchanges across the world. (5 and 6) Great-West Lifeco's asset management subsidiary, Putnam Investments became a Ceres Investor Member in 2022; and has been a member of the Sustainability Accounting Standards Board (SASB)/IFRS/ISSB since 2018, including serving on Investor Advisory Group and chairing the Corporate Engagement Group. Furthermore, our asset management subsidiary, Canada Life Asset Management UK, is a member of the Institutional Investors Group on Climate Change (IIGCC), and the UK Sustainable Investment and Finance Association (UKSIF). (7) In 2022 Great-West Lifeco's asset management subsidiary ILIM joined the Net Zero Asset Managers Initiative

C-FS14.0

(C-FS14.0) For each portfolio activity, state the value of your financing and insurance of carbon-related assets in the reporting year.

Investing in all carbon-related assets (Asset manager)

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
26161691296.76

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage of portfolio value comprised of carbon-related assets in reporting year
8.2

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
"Carbon-related assets" follows CDP Guidance to use TCFD definitions, and includes sectors involved in Coal, Oil & Gas, Utilities, Transportation, and Agriculture, Food, and Forest Products . For coal (which is included in this metric "all carbon-related assets" and also separated out below) a threshold of companies generating more than 40% of their revenue from thermal coal was used.

This figure includes information from Lifeco asset management subsidiaries Irish Life, Canada Life UK (off-balance sheet corporate fixed income), and Putnam. Putnam figures for carbon-related assets are based off of "Sustainalytics Fossil-Fuel Involvement - defined as the percentage of revenue that companies derive from thermal coal extraction, coal based power generation, oil & gas production, oil & gas power generation, and oil and gas related products and services". The denominator for calculating "percentage of portfolio value" was the AUM figures as at 12/31/22 for Irish Life, Canada Life UK (off balance sheet fixed income) and Putnam and includes asset classes for which this question is not relevant (such as real estate and sovereign bonds).

Investing in coal (Asset manager)

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
165490030.8

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage of portfolio value comprised of carbon-related assets in reporting year
0.05

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
A threshold of companies generating more than 40% of their revenue from thermal coal was used.

This figure includes information from Lifeco asset management subsidiaries Irish Life, Canada Life UK (off-balance sheet corporate fixed income), and Putnam. The denominator for calculating "percentage of portfolio value" was the AUM figures as at 12/31/22 for Irish Life, Canada Life UK (off balance sheet fixed income) and Putnam and includes asset classes for which this question is not relevant (such as real estate and sovereign bonds).

Investing in oil and gas (Asset manager)

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
14106472299.23

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage of portfolio value comprised of carbon-related assets in reporting year
4.42

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
This figure includes information from Lifeco asset management subsidiaries Irish Life, Canada Life UK (off-balance sheet corporate fixed income), and Putnam. The denominator for calculating "percentage of portfolio value" was the AUM figures as at 12/31/22 for Irish Life, Canada Life UK (off balance sheet fixed income) and Putnam and includes asset classes for which this question is not relevant (such as real estate and sovereign bonds).

Investing all carbon-related assets (Asset owner)

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
41584000000

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage of portfolio value comprised of carbon-related assets in reporting year
15.63

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
"Carbon-related assets" follows CDP Guidance to use TCFD definitions, and includes sectors involved in Coal, Oil & Gas, Utilities, Transportation, and Agriculture, Food, and Forest Products . For coal (which is included in this metric "all carbon-related assets" and also separated out below) a threshold of companies generating more than 40% of their revenue from thermal coal was used.

This figure includes information from Lifeco's general account. The denominator for calculating "percentage of portfolio value" was the general account value as at 12/31/22 and includes asset classes for which this question is not relevant (such as real estate and sovereign bonds).

Investing in coal (Asset owner)

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
192000000

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage of portfolio value comprised of carbon-related assets in reporting year
0.07

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
A threshold of companies generating more than 40% of their revenue from thermal coal was used.

This figure includes information from Lifeco's general account. The denominator for calculating "percentage of portfolio value" was the general account value as at 12/31/22 and includes asset classes for which this question is not relevant (such as real estate and sovereign bonds).

Investing in oil and gas (Asset owner)

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
7790000000

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage of portfolio value comprised of carbon-related assets in reporting year
2.93

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
This figure includes information from Lifeco's general account. The denominator for calculating "percentage of portfolio value" was the general account value as at 12/31/22 and includes asset classes for which this question is not relevant (such as real estate and sovereign bonds).

Insuring all carbon-related assets

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
0

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
0

Percentage of portfolio value comprised of carbon-related assets in reporting year
0

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
Lifeco does not insure carbon-related assets such as coal or oil & gas.

Insuring coal

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
0

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
0

Percentage of portfolio value comprised of carbon-related assets in reporting year
0

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
Lifeco does not insure carbon-related assets such as coal or oil & gas.

Insuring oil and gas

Are you able to report a value for the carbon-related assets?
Yes

Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)
0

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
0

Percentage of portfolio value comprised of carbon-related assets in reporting year
0

Primary reason for not providing a value for the financing and/or insurance to carbon-related assets
<Not Applicable>

Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future
<Not Applicable>

Details of calculation
Lifeco does not insure carbon-related assets such as coal or oil & gas.

C-FS14.1

(C-FS14.1) Does your organization measure its portfolio impact on the climate?

	We conduct analysis on our portfolio's impact on the climate	Disclosure metric	Please explain why you do not measure the impact of your portfolio on the climate
Banking (Bank)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Investing (Asset manager)	Yes	Portfolio emissions	<Not Applicable>
Investing (Asset owner)	Yes	Portfolio emissions	<Not Applicable>
Insurance underwriting (Insurance company)	No, but we plan to do so in the next two years	<Not Applicable>	Current methodology to calculate financed emissions for insurance only exists for motor vehicle loans. Great-West Lifeco's insurance is in the life and health insurance sectors, for which there is not yet methodology. For asset classes where final or draft methodology exists, those have been completed in Great-West Lifeco's general account.

C-FS14.1a

(C-FS14.1a) Provide details of your organization's portfolio emissions in the reporting year.

Investing (Asset manager)

Portfolio emissions (metric unit tons CO2e) in the reporting year
9388080

Portfolio coverage
20

Percentage calculated using data obtained from clients/investees
78

Emissions calculation methodology
The Global GHG Accounting and Reporting Standard for the Financial Industry

Please explain the details and assumptions used in your calculation
This figure includes financed emissions associated with:
(1) Lifeco subsidiary ILIM following PCAF methodology and covering all equity and corporate bonds as of 12/31/22; and
(2) Lifeco subsidiary GWL Realty Advisors following PCAF methodology and covering investment properties as of 12/31/22; and
(3) Lifeco subsidiary Putnam following PCAF methodology and covering 84.5% of Putnam's equity and corporate bonds as of 12/31/22.

The current coverage accounts for ~20% of the total Great-West Lifeco AUM portfolio of CAD$1,033 Billion as at year-end 2022.

The second item relates to the Canadian segregated real estate funds (GWL Canadian Real Estate Fund No.1 and London Life Real Estate Fund - managed by GWL Realty Advisors). The metrics are used to monitor the GHG emissions associated with each investment fund/portfolio and/or asset class. Lifeco continues to pilot methodologies for accounting for the carbon footprint of our financed emissions. Accounting for our portfolio emissions is evolving day-to-day, as Lifeco's portfolio companies' own emissions reporting capabilities evolve alongside emerging regulations and methodologies that are being refined by industry groups and data analytics providers. We are currently undergoing a process to set targets aligned with climate science and actively enhancing our internal methodologies for data compilation and analysis, including refining metrics for portfolio management. In terms of calculation, energy data collected from the Canadian segregated fund real estate investment portfolio was multiplied by appropriate emissions factors. Note that the portfolio GHG emissions related to the real estate assets have been externally assured (limited level) in accordance with the International Standards on Assurance Engagements 3410, Assurance Engagements on Greenhouse Gas Statements (''ISAE 3410''), issued by the International Auditing and Assurance Standards Board. Assumptions: While 78% of the figure associate with the Canadian segregated real estate funds was calculated based on actual utility bills received, the remainder was manually estimated following one of these methods: 1) manual interpolation from actual invoices, 2) manual estimation considering seasonality (e.g. natural gas) and/or 3) manual estimation without seasonality (e.g. electricity). The external assurance performed on these figures verifies that this was an accurate methodology.

Investing (Asset owner)

Portfolio emissions (metric unit tons CO2e) in the reporting year
19046.16

Portfolio coverage
0.44

Percentage calculated using data obtained from clients/investees
78

Emissions calculation methodology
The Global GHG Accounting and Reporting Standard for the Financial Industry

Please explain the details and assumptions used in your calculation
For Great-West Lifeco's General Account portfolio, as of December 31, 2022: We calculated the Scope 3 financed GHG emissions of the Great-West Lifeco general account. This figure accounts for the emissions associated with investment properties within Lifeco's General Account portfolio. Scope 3 financed GHG emissions were calculated using the proportional emissions from investments. These figures are used to track impact on climate within investments by being continually updated to reflect changes in holdings as well as updates in financial and emissions data from investees. The "Investment-specific method" was used, which involves collecting scope 1 and scope 2 emissions from the investee and allocating the emissions based upon the share of Great-West Lifeco's investment. Many of these investment properties are fully owned by the General Account, and there is an investment of the General Account into the real estate segregated funds reported in the "asset manager" row; the proportion of which has been removed from the asset manager figure and included in the asset owner figure. This methodology is in line with the Partnership for Carbon Accounting Financials (PCAF) 2020 Global GHG Accounting and Reporting Standard for the Financial Industry (First Edition). Lifeco continues to pilot methodologies for accounting for the carbon footprint of our financed emissions. Accounting for our portfolio emissions is evolving day-to-day, as Lifeco's portfolio companies' own emissions reporting capabilities evolve alongside emerging regulations and methodologies that are being refined by industry groups and data analytics providers. We are undergoing a process to set targets aligned with climate science and actively enhancing our internal methodologies for data compilation and analysis, including refining metrics for portfolio management. Assumptions: While 78% of this figure was calculated based on actual utility bills received, the remainder was manually estimated following one of these methods: 1) manual interpolation from actual invoices, 2) manual estimation considering seasonality (e.g. natural gas) and/or 3) manual estimation without seasonality (e.g. electricity). The external assurance performed on these figures verifies that this was an accurate methodology.

C-FS14.2

(C-FS14.2) Are you able to provide a breakdown of your organization's portfolio impact?

	Portfolio breakdown	Please explain why you do not provide a breakdown of your portfolio impact
Row 1	Yes, by country/area/region	<Not Applicable>

C-FS14.2c

(C-FS14.2c) Break down your organization's portfolio impact by country/area/region.

Portfolio	Country/area/region	Portfolio metric	Portfolio emissions or alternative metric
Investing (Asset owner)	Canada	Absolute portfolio emissions (tCO2e)	12885
Investing (Asset owner)	United Kingdom of Great Britain and Northern Ireland	Absolute portfolio emissions (tCO2e)	237
Investing (Asset owner)	Ireland	Absolute portfolio emissions (tCO2e)	951
Investing (Asset owner)	United States of America	Absolute portfolio emissions (tCO2e)	1629
Investing (Asset manager)	Canada	Absolute portfolio emissions (tCO2e)	126694
Investing (Asset manager)	United States of America	Absolute portfolio emissions (tCO2e)	478

C-FS14.3

(C-FS14.3) Did your organization take any actions in the reporting year to align your portfolio with a 1.5°C world?

	Actions taken to align our portfolio with a 1.5°C world	Briefly explain the actions you have taken to align your portfolio with a 1.5-degree world	Please explain why you have not taken any action to align your portfolio with a 1.5°C world
Banking (Bank)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Investing (Asset manager)	Yes	Across Lifeco asset management affiliates a number of actions were taken in 2022 to align portfolios to a 1.5-degree world. At Setanta, almost 50% of Setanta's total AUM as at the end of 2022 followed an ESG or ethical mandate. In addition, Setanta published their first report aligned with the TCFD guidelines in 2022. Through 2022 Setanta engaged a consultant and undertook an extensive project to understand avenues for aligning portfolios with a 1.5 degree world. Setanta expects to make a net zero commitment on specific client assets in 2023. In 2022 Lifeco's subsidiary ILIM joined the Net Zero Asset Managers Initiative and released interim targets. ILIM also engaged with more than 900 companies on climate change, including more than 50 direct engagements. Meanwhile Putnam deepened its integration of ESG into the Fixed Income research process, across asset classes. Focused resources, including a Fixed Income Director of Sustainable Investing and Asset Class leads, led analysis and development of research processes. Working with the new Head of Sustainability Strategy, the team also developed engagement processes and prioritization. In 2022 Putnam also prepared for the launch of three transparent, actively managed ESG ETF's (Ultra Short, Core Bond and High Yield) as well as for the launch of Sustainable Retirement product suite (which would include Putnam and PanAgora ESG ETF components). GWL Realty Advisors also released a net zero commitment in 2022 and continued to complete asset-level decarbonization studies.	<Not Applicable>
Investing (Asset owner)	Yes	Within the Canada Life Asset Management (CLAM) division of stewardship for Lifeco's general account out of the UK, the team introduced a coal screen to not invest in companies who generate more than 15% of revenue from coal unless there is a target to reduce this to below 5% by 2030. The team also developed a high-level proprietary carbon risk-rating system looking at all asset classes from a bottom-up perspective to apply portfolio-wide. This involved developing a tiering system, to be applied across all asset classes, to help manage and monitor these risks across the combined portfolio. Each asset is categorized in one of three buckets based on CLAM's view of the alignment of the asset to net zero. This carbon risk-rating system allows CLAM to look at the portfolio through a different lens, to easily assess the level of alignment of each asset with our own pathway. The carbon risk-rating system also helps us to identify holdings that require engagement in support of CLAM's net zero targets. Taking fixed income counterparties as an example, the investment team considers a number of factors when tiering credits, including: if the counterparty has a credible, quantifiable net zero by 2050 commitment; if they have published details on how they plan to achieve it (e.g., a transition plan including interim targets); and transparency of their reporting through public disclosure. While CLAM is continuing to develop their use of the carbon risk-rating system in the Lifeco general account, they've already begun to apply it at the asset level to prioritise engagement and activity (such as further analysis). CLAM anticipates using it as an additional way to monitor the transition of risk in its portfolios. In addition, in 2022 CLAM collaborated with the financial industry on climate change, focused on their membership of CDP, the IIGCC and CA100+. Through these collaborations various holdings in the Lifeco general account were engaged for improved climate or biodiversity disclosure and actions. CLAM also rolled out a new investee engagement template across their business, which is used to track engagement in their portion of Lifeco's general account. Within the Canada Life division of stewardship for Lifeco's general account, a new role of Senior Managing Director, Sustainable Investments was hired.	<Not Applicable>
Insurance underwriting (Insurance company)	Yes	Within the perspective of Lifeco's life and health insurance offerings, the risk team is engaging with potential providers to better understand the climate-related impact on liabilities of life and health policies with mortality, morbidity or longevity underwriting risk. In addition, in 2022 Canada Life began a project plan to fulfil requirements from the Green Procurement Authority for the Public Service Health Care Plan for federal public service employees and their dependents for the government of Canada. Requirements include the calculation and assurance of greenhouse gas emissions.	<Not Applicable>

C-FS14.3a

(C-FS14.3a) Does your organization assess if your clients/investees' business strategies are aligned with a 1.5°C world?

	Assessment of alignment of clients/investees' strategies with a 1.5°C world	Please explain why you are not assessing if your clients/investees' business strategies are aligned with a 1.5°C world
Banking (Bank)	<Not Applicable>	<Not Applicable>
Investing (Asset manager)	Yes, for some	We have started the process of assessing our clients/investees' business strategies alignment to a 1.5 degree world. This assessment is conducted through our asset management subsidiaries, Irish Life Investment Managers and, Canada Life Asset Management, which are part of various industry coalitions such as the Institutional Investors Group on Climate Change (IIGCC) and the UK Sustainable Investment and Finance Association that are engaging the top 100 greenhouse gas emitters globally on developing their climate transition plans in alignment with the Paris Agreement. Furthermore, through ILIM`s climate focused fund, we are engaging investees on their climate transition plans and decarbonization strategies.
Investing (Asset owner)	Yes, for all	<Not Applicable>
Insurance underwriting (Insurance company)	No, we do not have any commercial/corporate/SME clients	<Not Applicable>

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	The Risk Committee of the Board of Directors is responsible for, among other things, providing risk oversight of the Corporation for all risks, including sustainability environmental risks, which would include relevant biodiversity-related matters. Oversight of such matters is an important responsibility of the Risk Committee's mandate, given Great West Lifeco's commitment to respect the environment and to take a balanced and sustainable approach to conducting business. The Risk Committee oversees the ERM framework, which includes financial risks (market, credit, and insurance) and non-financial risks (operational, conduct, and strategic). In Q1 2022, Lifeco added Environmental Risks as new Emerging Risk. The company did so to separate this risk out from Climate Change Transition Impacts and to expand this new risk to both extreme events and gradual changes in environmental risks. The current and emerging risk heat maps are included in the CRO Report. The CRO Report is presented to Risk Committee quarterly by the CRO. who provides key highlights which may include current and emerging risks. At the Q3 2022 Risk Committee, a separate agenda was included on current and emerging risks. The Senior Vice-President, Global Chief Communications and Sustainability Officer is responsible for, among other things, supporting the design and execution of an enterprise-wide approach to our Environmental, Social and Governance (ESG) strategy and framework. Where relevant, within the environmental dimension, the role would include biodiversity-related matters. For example, in 2022 they were involved in completion of a benchmarking survey on behalf of Lifeco for a third party on insurer's environmental and biodiversity risk management approach.	Risks and opportunities to our own operations Risks and opportunities to our investment activities The impact of our own operations on biodiversity The impact of our investing activities on biodiversity

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Other, please specify (Commitment to use products that meet the Forest Stewardship Council's standards. Lifeco's Reinsurance division in Ireland has committed to activities aligned with SDG 2 with a focus on reducing food waste at the office and the external community.)	SDG Other, please specify (Forest Stewardship Council)

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
No

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Education & awareness Other, please specify (Fixed income team for Lifeco's general account received training on the biodiversity assessment of companies. Lifeco's UK subsidiary started work in 2022 on a project to evaluate available tools to assess portfolio biodiversity and impact on nature.)

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Pressure indicators

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Other, please specify (Metrics on investments that consider biodiversity risks and opportunities in investee companies)	See p.15-16 as referenced on the document page for metrics on investments that consider biodiversity impacts in investee companies, including portions of the $127 billion in ESG-related strategies managed by Lifeco asset management affiliates. Great-West_Lifeco_-_2022_annual_report.pdf
In voluntary sustainability report or other voluntary communications	Risks and opportunities Biodiversity strategy	Lifeco subsidiary Irish Life Investment Manager's 2022 Responsible Investing Review covers investee engagement on ESG with natural capital as one of four priorities. Pages 3, 5, 8, 9, 11, 15-17, 21-23 all include information on natural capital. ILIM_responsible-investing-annual-review-2022.pdf
In voluntary sustainability report or other voluntary communications	Risks and opportunities Biodiversity strategy	Lifeco subsidiary Putnam's 2022 Engagement Report covers investee engagement on ESG including biodiversity. Pages 6, 7, 9, 10, 12-15, 28-30 (as referenced on document page) all include metrics and information on biodiversity. Putnam Engagement and Stewardship Report Dec 2022.pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Deputy Chief Financial Officer and Chief Accounting and Control Officer, Great-West Lifeco	Chief Financial Officer (CFO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

FW-FS Forests and Water Security (FS only)

FW-FS1.1

(FW-FS1.1) Is there board-level oversight of forests- and/or water-related issues within your organization?

	Board-level oversight of this issue area	Explain why your organization does not have board-level oversight of this issue area and any plans to address this in the future
Forests	Yes	<Not Applicable>
Water	Yes	<Not Applicable>

FW-FS1.1a

(FW-FS1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for forests- and/or water-related issues.

Issue area(s)	Position of individual(s) or committee(s)	Responsibilities for forests- and/or water-related issues
Forests Water	Board-level committee	The Risk Committee of the Board of Directors is responsible for, among other things, providing risk oversight of the Corporation for all risks, including sustainability environmental risks, which would include relevant biodiversity-related matters. Oversight of such matters is an important responsibility of the Risk Committee's mandate, given Great West Lifeco's commitment to respect the environment and to take a balanced and sustainable approach to conducting business. The Risk Committee oversees the ERM framework and the company's principal risks including credit, insurance, market, operational, conduct, and strategic risks. In Q1 2022, Lifeco added Environmental Risks as new Emerging Risk. The company did so to separate this risk out from Climate Change Transition Impacts and to expand this new risk to both extreme events and gradual changes in environmental risks. The current and emerging risk heat maps are included in the CRO Report. The CRO Report is presented to Risk Committee quarterly by the CRO. who provides key highlights which may include current and emerging risks. At the Q3 2022 Risk Committee, a separate agenda was included on current and emerging risks. The Senior Vice-President, Global Chief Communications and Sustainability Officer is responsible for, among other things, supporting the design and execution of an enterprise-wide approach to our Environmental, Social and Governance (ESG) strategy and framework. Where relevant, within the environmental dimension, the role would include biodiversity-related matters. For example, in 2022 they and the Chief Risk Officer (CRO) made a decision to participate in and receive a briefing on the results of a benchmarking survey on behalf of Lifeco for a third party on insurer's environmental and biodiversity risk management approach, including those related to deforestation commodities.

FW-FS1.1b

(FW-FS1.1b) Provide further details on the board's oversight of forests- and/or water-related issues.

Issue area(s)
Forests

Frequency with which the issue area(s) is a scheduled agenda item
Sporadic - as important matters arise

Governance mechanisms into which this issue area(s) is integrated
Reviewing and guiding the risk management process

Scope of board-level oversight
Risks and opportunities to our investment (asset management) activities
Risks and opportunities to our investment (asset ownership) activities

Please explain
The Risk Committee of the Board of Directors is responsible for, among other things, providing risk oversight of the Corporation for all risks, including sustainability environmental risks, which would include relevant forest-related matters. Oversight of such matters is an important responsibility of the Risk Committee's mandate, given Great West Lifeco's commitment to respect the environment and to take a balanced and sustainable approach to conducting business. The Risk Committee oversees the ERM framework and the company's principal risks including credit, insurance, market, operational, conduct, and strategic risks.

Issue area(s)
Water

Frequency with which the issue area(s) is a scheduled agenda item
Sporadic - as important matters arise

Governance mechanisms into which this issue area(s) is integrated
Reviewing and guiding the risk management process

Scope of board-level oversight
Risks and opportunities to our investment (asset management) activities
Risks and opportunities to our investment (asset ownership) activities

Please explain
The Risk Committee of the Board of Directors is responsible for, among other things, providing risk oversight of the Corporation for all risks, including sustainability environmental risks, which would include relevant water-related matters. Oversight of such matters is an important responsibility of the Risk Committee's mandate, given Great West Lifeco's commitment to respect the environment and to take a balanced and sustainable approach to conducting business. The Risk Committee oversees the ERM framework and the company's principal risks including credit, insurance, market, operational, conduct, and strategic risks.

FW-FS1.1c

(FW-FS1.1c) Does your organization have at least one board member with competence on forests- and/or water-related issues?

Forests

Board member(s) have competence on this issue area
Yes

Criteria used to assess competence of board member(s) on this issue area
Board competencies on forest and water-related issues would be included as part of the Corporate Social Responsibility skills as presented in the 2022 Management Proxy Circular. This identifies 15 directors as having CSR-related skills, which includes the constituents involved in sustainability. In 2022, The Lifeco Board approved revised charters for the Board, Audit Committee, Risk Committee, and Investment Committee to formally incorporate ESG matters. As with all responsibilities set out in the charters, the enumerated ESG-related responsibilities will be monitored to ensure the charters continue to reflect our evolving governance of this important area.

Primary reason for no board-level competence on this issue area
<Not Applicable>

Explain why your organization does not have at least one board member with competence on this issue area and any plans to address this in the future
<Not Applicable>

Water

Board member(s) have competence on this issue area
Yes

Criteria used to assess competence of board member(s) on this issue area
Board competencies on forests and water-related issues would be included as part of the Corporate Social Responsibility skills as presented in the 2022 Management Proxy Circular. This identifies 15 directors as having CSR-related skills, which includes the constituents involved in sustainability. In 2022, The Lifeco Board approved revised charters for the Board, Audit Committee, Risk Committee, and Investment Committee to formally incorporate ESG matters. As with all responsibilities set out in the charters, the enumerated ESG-related responsibilities will be monitored to ensure the charters continue to reflect our evolving governance of this important area.

Primary reason for no board-level competence on this issue area
<Not Applicable>

Explain why your organization does not have at least one board member with competence on this issue area and any plans to address this in the future
<Not Applicable>

FW-FS1.2

(FW-FS1.2) Provide the highest management-level position(s) or committee(s) with responsibility for forests- and/or water-related issues.

Position or committee
Chief Sustainability Officer (CSO)

Issue area(s)
Forests
Water

Forests- and/or water-related responsibilities of this position
Assessing forests- and/or water-related risks and opportunities
Managing forests- and/or water-related risks and opportunities

Coverage of responsibilities
Risks and opportunities related to our investing (asset ownership) activities

Reporting line
CEO reporting line

Frequency of reporting to the board on forests- and/or water-related issues via this reporting line
As important matters arise

Please explain
The Chief Sustainability Officer is responsible for, among other things, working with the Lifeco Risk team to provide risk oversight of sustainability environmental risks, which would include relevant forest and water-related matters in our operations and portfolio. For example, in 2022 they and the Chief Risk Officer (CRO) were involved in completion of a benchmarking survey on behalf of Lifeco for a third party on insurer's environmental and biodiversity risk management approach.

Position or committee
Chief Investment Officer (CIO)

Issue area(s)
Forests
Water

Forests- and/or water-related responsibilities of this position
Assessing forests- and/or water-related risks and opportunities
Managing forests- and/or water-related risks and opportunities

Coverage of responsibilities
Risks and opportunities related to our investing (asset ownership) activities

Reporting line
CEO reporting line

Frequency of reporting to the board on forests- and/or water-related issues via this reporting line
As important matters arise

Please explain
The Chief Investment Officer is responsible for, among other things, working with the Lifeco Risk team to provide risk oversight of sustainability environmental risks, which would include relevant forest and water-related matters in our portfolio.

FW-FS2.1

(FW-FS2.1) Do you assess your portfolio's exposure to forests- and/or water-related risks and opportunities?

	We assess our portfolio's exposure to this issue area	Explain why your portfolio's exposure is not assessed for this issue area and any plans to address this in the future
Banking – Forests exposure	<Not Applicable>	<Not Applicable>
Banking – Water exposure	<Not Applicable>	<Not Applicable>
Investing (Asset manager) – Forests exposure	Yes	<Not Applicable>
Investing (Asset manager) – Water exposure	Yes	<Not Applicable>
Investing (Asset owner) – Forests exposure	Yes	<Not Applicable>
Investing (Asset owner) – Water exposure	Yes	<Not Applicable>
Insurance underwriting – Forests exposure	<Not Applicable>	<Not Applicable>
Insurance underwriting – Water exposure	<Not Applicable>	<Not Applicable>

FW-FS2.1a

(FW-FS2.1a) Describe how you assess your portfolio's exposure to forests- and/or water-related risks and opportunities.

Investing (Asset manager) – Forests exposure

Type of risk management process
A specific ESG-related risk management process

Proportion of portfolio covered by risk management process
9

Type of assessment
Qualitative only

Time horizon(s) covered
Short-term

Tools and methods used
External consultants

% of clients/investees (by number) exposed to substantive risk

% of clients/investees (by portfolio exposure) exposed to substantive risk

Provide the rationale for implementing this process to assess your portfolio's exposure to forests- and/or water-related risks and opportunities
Through our asset management affiliates, Irish Life Investment Managers (ILIM) and Putnam, we obtain material ESG related information, including forest-related information, from third party data providers, company reports and other public data sources, as part of our bespoke ESG risk assessment processes. Where performance is lagging, we use the information to engage with investees on disclosure of their policies and risk mitigation measures. For example, in 2022, ILIM engaged 358 companies through the CDP Non-Disclosure Campaign on deforestation disclosure where determined to be material. They also used the information to inform direct engagements with investees, of which 16% were on natural capital issues in 2022, including biodiversity. Additionally, ILIM conducts voting on natural capital issues through support of natural capital shareholder proposals, including on forest-related matters. For example, in 2022, ILIM voted in favour of 31 natural capital-related proposals, including a successful vote related to deforestation from the supply chain at Home Depot. Meanwhile, Putnam conducts its due diligence to identify companies that are providing products and services to address deforestation issues. Among other uses, the information is used inform the identification of leaders and solutions providers for investment consideration for its Sustainable Leaders Fund and Sustainable Future Fund.

Investing (Asset manager) – Water exposure

Type of risk management process
A specific ESG-related risk management process

Proportion of portfolio covered by risk management process
11

Type of assessment
Qualitative and quantitative

Time horizon(s) covered
Short-term

Tools and methods used
External consultants

% of clients/investees (by number) exposed to substantive risk

% of clients/investees (by portfolio exposure) exposed to substantive risk

Provide the rationale for implementing this process to assess your portfolio's exposure to forests- and/or water-related risks and opportunities
Through our asset management affiliates - ILIM and Putnam - we obtain material ESG related information, including on water, from third party data providers, company reports and other public data sources, as part of our risk assessment processes. Where performance is lagging, we use the information to engage with investees on disclosure of their policies and risk mitigation measures. For example, in 2022, ILIM engaged 476 companies through the CDP Non-Disclosure Campaign on water security disclosure where determined to be material. They also used the information to inform direct engagements with investees, of which 16% were on natural capital issues in 2022, including water-related issues. Additionally, ILIM conducts voting on natural capital issues through support of natural capital shareholder proposals, including on water-related matters. For example, in 2022, ILIM voted in favour of 31 natural capital-related proposals, including votes related to Phillip 66 preparing a report describing how the company could shift its plastic resin business model from virgin to recycled polymer production as a means of reducing plastic ocean pollution, and Tesla, Inc. preparing a report on water risk exposure. Meanwhile, Putnam conducts its assessment to identify companies that are providing products and services to address water conservation and scarcity issues. The information is used to identify leaders for inclusion in its Sustainable Leaders Fund and Sustainable Future Fund. In addition, PanAgora has integrated water efficiency factors for some of its flagship equity strategies as an alpha opportunity, including its ESG-integrated Dynamic Equity and Stock Selector strategies, and its Sustainable Global Equity and Dynamic FLEX Strategies.

Investing (Asset owner) – Forests exposure

Type of risk management process
A specific ESG-related risk management process

Proportion of portfolio covered by risk management process
32

Type of assessment
Qualitative only

Time horizon(s) covered
Short-term

Tools and methods used
External consultants

% of clients/investees (by number) exposed to substantive risk

% of clients/investees (by portfolio exposure) exposed to substantive risk

Provide the rationale for implementing this process to assess your portfolio's exposure to forests- and/or water-related risks and opportunities
The assets we manage in our general account are assessed for ESG possible risks, including forest-related issues, where material as part of our risk assessment processes using a third party ESG data provider. The information is used to inform possible engagement opportunities with the respective companies.

Investing (Asset owner) – Water exposure

Type of risk management process
A specific ESG-related risk management process

Proportion of portfolio covered by risk management process
32

Type of assessment
Qualitative only

Time horizon(s) covered
Short-term

Tools and methods used
External consultants

% of clients/investees (by number) exposed to substantive risk

% of clients/investees (by portfolio exposure) exposed to substantive risk

Provide the rationale for implementing this process to assess your portfolio's exposure to forests- and/or water-related risks and opportunities
The assets we manage in our general account are assessed for ESG possible risks, including water-related issues, where material as part of our risk assessment processes. The information is used to inform possible engagement opportunities with the respective companies. In addition, on a regular basis we measure and assess water consumption and possible risks in our real estate investment portfolio managed through our subsidiary GWL Realty Advisors. The information is used to inform water conservation investments, as part of our broader Sustainability Benchmarking and Conservation Program.

FW-FS2.2

(FW-FS2.2) Does your organization consider forests- and/or water-related information about clients/investees as part of its due diligence and/or risk assessment process?

	We consider forests- and/or water-related information	Explain why information related to this issue area is not considered and any plans to address this in the future
Banking – Forests-related information	<Not Applicable>	<Not Applicable>
Banking – Water-related information	<Not Applicable>	<Not Applicable>
Investing (Asset manager) – Forests-related information	Yes	<Not Applicable>
Investing (Asset manager) – Water-related information	Yes	<Not Applicable>
Investing (Asset owner) – Forests-related information	Yes	<Not Applicable>
Investing (Asset owner) – Water-related information	Yes	<Not Applicable>
Insurance underwriting – Forests-related information	<Not Applicable>	<Not Applicable>
Insurance underwriting – Water-related information	<Not Applicable>	<Not Applicable>

FW-FS2.2a

(FW-FS2.2a) Indicate the forests- and/or water-related information your organization considers about clients/investees as part of your due diligence and/or risk assessment process, and how this influences decision making.

	Type of information considered	Process through which information is obtained	Industry sector(s) covered by due diligence and/or risk assessment process	State how these forests- and/or water-related information influences your decision making
Banking – Forests-related information	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Banking – Water-related information	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Investing (Asset manager) – Forests-related information	Scope and content of forests policy	Directly from the client/investee Data provider Public data sources	Energy Materials Consumer Durables & Apparel Utilities Other, please specify (Industrials)	Through our asset management affiliates - ILIM and Putnam - we obtain material ESG related information, including forest management, from third party data providers, company reports and other public data sources, as part of our risk assessment / due diligence processes. Where performance is lagging, we use the information to engage with investees on disclosure of their policies and risk mitigation measures. For example, in 2022, ILIM engaged 358 companies through the CDP Non-Disclosure Campaign on deforestation disclosure where determined to be material. They also used the information to inform direct engagements with investees, of which 16% were on natural capital issues in 2022, including biodiversity. Additionally, ILIM conducts voting on natural capital issues through support of natural capital shareholder proposals, including on forest-related matters. For example, in 2022, ILIM voted in favour of 31 natural capital-related proposals, including a successful vote related to deforestation from the supply chain at Home Depot. Meanwhile, Putnam conducts its due diligence to identify companies that are providing products and services to address deforestation issues. Among other uses, the information is used inform the identification of leaders and solutions providers for investment consideration for its Sustainable Leaders Fund and Sustainable Future Fund.

	Type of information considered	Process through which information is obtained	Industry sector(s) covered by due diligence and/or risk assessment process	State how these forests- and/or water-related information influences your decision making
Investing (Asset manager) – Water-related information	Scope and content of water policy	Directly from the client/investee Data provider Public data sources	Energy Materials Consumer Durables & Apparel Technology Hardware & Equipment Utilities Other, please specify (Industrials)	Through our asset management affiliates - ILIM and Putnam - we obtain material ESG related information, including on water, from third party data providers, company reports and other public data sources, as part of our risk assessment / due diligence processes. Where performance is lagging, we use the information to engage with investees on disclosure of their policies and risk mitigation measures. For example, in 2022, ILIM engaged 476 companies through the CDP Non-Disclosure Campaign on water security disclosure where determined to be material. They also used the information to inform direct engagements with investees, of which 16% were on natural capital issues in 2022, including water-related issues. Additionally, ILIM conducts voting on natural capital issues through support of natural capital shareholder proposals, including on water-related matters. For example, in 2022, ILIM voted in favour of 31 natural capital-related proposals, including votes related to Phillip 66 preparing a report describing how the company could shift its plastic resin business model from virgin to recycled polymer production as a means of reducing plastic ocean pollution, and Tesla, Inc. preparing a report on water risk exposure. Meanwhile, Putnam conducts its due diligence to identify companies that are providing products and services to address water conservation. Among other uses, the information is used inform the identification of leaders and solutions providers for investment consideration for its Sustainable Leaders Fund and Sustainable Future Fund.
Investing (Asset owner) – Forests-related information	Scope and content of forests policy	Directly from the client/investee Data provider Public data sources	Energy Materials Capital Goods Commercial & Professional Services Transportation Automobiles & Components Consumer Durables & Apparel Consumer Services Retailing Food & Staples Retailing Food, Beverage & Tobacco Household & Personal Products Health Care Equipment & Services Pharmaceuticals, Biotechnology & Life Sciences Software & Services Technology Hardware & Equipment Semiconductors & Semiconductor Equipment Telecommunication Services Media & Entertainment Utilities Real Estate	The assets we manage in our general account are assessed for ESG possible risks, including forest-related issues, where material as part of our risk assessment due diligence processes. The information is used to inform possible engagement opportunities with the respective companies.
Investing (Asset owner) – Water-related information	Scope and content of water policy	Directly from the client/investee Data provider Public data sources	Energy Materials Capital Goods Commercial & Professional Services Transportation Automobiles & Components Consumer Durables & Apparel Consumer Services Retailing Food & Staples Retailing Food, Beverage & Tobacco Household & Personal Products Health Care Equipment & Services Pharmaceuticals, Biotechnology & Life Sciences Software & Services Technology Hardware & Equipment Semiconductors & Semiconductor Equipment Telecommunication Services Media & Entertainment Utilities Real Estate	The assets we manage in our general account are assessed for ESG possible risks, including water-related issues, where material as part of our risk assessment / due diligence processes. The information is used to inform possible engagement opportunities with the respective companies. In addition, on a regular basis we measure and assess water consumption information in our real estate investment portfolio managed through our subsidiary GWL Realty Advisors. The information is used to inform water conservation investments, as part of our broader Sustainability Benchmarking and Conservation Program.

	Type of information considered	Process through which information is obtained	Industry sector(s) covered by due diligence and/or risk assessment process	State how these forests- and/or water-related information influences your decision making
Insurance underwriting – Forests-related information	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Insurance underwriting – Water-related information	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

FW-FS2.3

(FW-FS2.3) Have you identified any inherent forests- and/or water-related risks in your portfolio with the potential to have a substantive financial or strategic impact on your business?

	Risks identified for this issue area	Primary reason why your organization has not identified any substantive risks for this issue area	Explain why your organization has not identified any substantive risks for this issue area
Forests	No	Evaluation in process	We continue to evaluate possible risks related to forest risks in our investment portfolio. For example, in the General Account, we use third party ESG research service providers to identify the relevant material ESG risks in the investment portfolio, which includes forest-related risks. This information analysis is currently underway and not yet consolidated to determine whether substantive risks exist. At our investment management affiliates such as Putnam Investments, we are also in the process of identifying sustainability leaders for our funds that can demonstrate thriving business models, including products and services supporting forest health such as regenerative land-use, biodynamic practices, soil health, and biodiversity and ecosystems health. While integrating forest related considerations into our funds is important, we have not seen a substantive demand from our clients, which could adversely impact demand for our investment products.
Water	No	Evaluation in process	We continue to evaluate possible risks related to water in our investment portfolio. For example, in the General Account, we use third party ESG research service providers to identify the relevant material ESG risks in the investment portfolio, which includes water-related risks. We also consider possible water-related risks in our private debt business when lending to utility companies such as hydro-energy. GWL Realty Advisors manages water risks in our Canadian real estate portfolio, having developed its Sustainable Benchmarking and Conservation Program, which includes water reduction targets for office assets. Furthermore, since 2013, we have reduced the water use intensity of our Canadian office and residential real estate portfolios by 32%. While important, the water-related risks within our real estate investment portfolio are not considered substantive, especially given the geographic distribution of our properties.

FW-FS2.4

(FW-FS2.4) Have you identified any inherent forests- and/or water-related opportunities in your portfolio with the potential to have a substantive financial or strategic impact on your business?

	Opportunities identified for this issue area	Primary reason why your organization has not identified any substantive opportunities for this issue area	Explain why your organization has not identified any substantive opportunities for this issue area
Forests	No	Evaluation in process	The evaluation of forest-related opportunities is currently in process. For example, in the General Account, we use third party ESG research service providers to identify the relevant material ESG risks and opportunities in the investment portfolio, which includes forest-related opportunities. This information analysis is currently underway and not yet consolidated to determine whether substantive opportunities exist. At our investment management affiliates such as Putnam Investments, we are also in the process of identifying sustainability leaders and solution providers that can demonstrate thriving business models, including products and services supporting forest health. For example, this includes companies that are leading in regenerative land-use, biodynamic practices, soil health, and biodiversity and ecosystems health. With respect to products and services, our asset management subsidiaries including Putnam Investments and Irish Life Investment Managers (who are signatories to the UNPRI), manage more than CAD$127 billion across a number of ESG related strategies. This includes Putnam's Sustainable Leaders Fund and Sustainable Futures Fund; Irish Life's ESG Corporate Bond Fund. ILIM Climate Focused Fund, Customer ESG Indices, Sustainable Equity Developed Markets Strategy, Sustainable Equity Emerging Markets Strategy; PanAgora Dynamic Equity and Stock Selector Strategies which are ESG-integrate, along with the Sustainable Global Equity, Dynamic Flex, and Diversified Risk Global Equity ESG Aware Strategies and Setanta Ethical & SRI Funds. While these products are noteworthy, they are not considered substantive given our diversified businesses and extensive distribution reach. For example, in 2022, the fee income from responsible investment options represented less than 0.01% of our AUM.
Water	No	Evaluation in process	The evaluation of water-related opportunities is currently in process. For example, in the General Account, we use third party ESG research service providers to identify the relevant material ESG opportunities in the investment portfolio, which includes water-related opportunities. This information analysis is currently underway and not yet consolidated to determine whether substantive opportunities exist. GWL Realty Advisors includes water conservation opportunities as part of its Sustainable Benchmarking and Conservation Program for our real estate investment portfolio. Since 2013, we have reduced the use intensity of our Canadian office and residential real estate portfolios by 32%. While important, the water conservation opportunities within our real estate investment portfolio is not considered substantive, especially given it represents less than 2% of our diversified global investment portfolio. At our investment management affiliates such as Putnam Investments, we are also in the process of identifying opportunities to invest in sustainability leaders and solution providers that can demonstrate thriving business models. Through their investments in the thriving planet category, they are identifying company products and services related to resource stewardship, including water security. With respect to products and services, our asset management subsidiaries including Putnam Investments and Irish Life Investment Managers (who are signatories to the UNPRI), manage more than CAD $127 billion across a number of ESG related strategies, including water related opportunities. This includes Putnam's Sustainable Leaders Fund and Sustainable Futures Fund; Irish Life's ESG Corporate Bond Fund, ILIM Climate Focused Fund, Customer ESG Indices, Sustainable Equity Developed Markets Strategy, Sustainable Equity Emerging Markets Strategy; PanAgora inclusion of a Water Efficiency Factor in some of its flagship equity strategies (Dynamic Equity and Stock Selector Strategies which are ESG-integrated, along with the Sustainable Global Equity, Dynamic FLEX, and Diversified Risk Global Equity ESG Aware Strategies) and Setanta Ethical & SRI Funds. While these products are important, they are not considered substantive given our diversified businesses and extensive distribution reach. For example, in 2022, the income from responsible investment options represented less than 0.01% of our AUM.

FW-FS3.1

(FW-FS3.1) Do you take forests- and/or water-related risks and opportunities into consideration in your organization's strategy and/or financial planning?

Forests

Risks and opportunities related to this issue area taken into consideration in strategy and/or financial planning
Yes, we take these risks and opportunities into consideration in the organization's strategy and financial planning

Description of influence on organization's strategy including own commitments
Forest-related risks and opportunities are taken into account as part of the Great West-Lifeco corporate initiatives, including with respect to our community investment strategy and our strategy when procuring products and services. For example, we are a member of the Forest Stewardship Council (FSC), and have committed to using responsibly sourced paper and other forest products that meet the FSCs strict environmental and social standards.

From a community investment standpoint, we are committed to supporting causes that protect and regenerate forests. For example, since 2009 we have been supporting Reforest London as they plant, grow and sustain urban forests in London, ON and our capital contribution in 2022 supports the city's first environmental centre, driving sustainability in the community. We also continue to support the Nature Conservancy of Canada, focusing on protecting Canada's forests.

We also consider forest-related risks in our asset management affiliate`s investment portfolios. For example, Irish Life Investment Managers (ILIM) have included forest-related risks as part of collaborative engagement and shareholder voting strategies. The time horizons considered are mostly short term (0-5 years), but some engagements have a timeframe of more than 5 years, so would also be medium term (5-25 years). Meanwhile, Putnam has included forest-related issues as part of its investment fundamental research to inform their investment decisions.

Financial planning elements that have been influenced
Indirect costs

Description of influence on financial planning
Forest related risks and opportunities have influenced our indirect costs within the business to deploy on the respective strategies, including procurement of products and services, community investments, investee engagement and research analysis.

Explain why forests- and/or water-related risks and opportunities have not influenced your strategy and/or financial planning
<Not Applicable>

Water

Risks and opportunities related to this issue area taken into consideration in strategy and/or financial planning
Yes, we take these risks and opportunities into consideration in the organization's strategy and financial planning

Description of influence on organization's strategy including own commitments
Water-related risks and opportunities are taken into account through the investment strategies of our subsidiaries. For example, GWL Realty Advisors ensures that water conservation of our real estate portfolio is effectively managed through its Sustainability Benchmarking and Conservation Program and other conservation initiatives.

Irish Life Investment Managers (ILIM) have included water-related risks as part of their collaborative engagement and share voting strategies. The time horizons considered are mostly short term (0-5 years), but some engagements have a timeframe of more than 5 years, so would also be medium term (5-25 years). Meanwhile, Putnam has included water-related issues as part of its investment fundamental research to inform their selection of leaders and laggards within their funds.

Financial planning elements that have been influenced
Indirect costs

Description of influence on financial planning
Water related risks and opportunities have influenced our indirect costs within the business, for deploying on water conservation strategies in the real estate portfolio as well as costs associated with investee engagement and research analysis.

Explain why forests- and/or water-related risks and opportunities have not influenced your strategy and/or financial planning
<Not Applicable>

FW-FS3.2

(FW-FS3.2) Has your organization conducted any scenario analysis to identify forests- and/or water-related outcomes?

Forests

Scenario analysis conducted to identify outcomes for this issue area
No, we have not conducted any scenario analysis to identify outcomes for this issue area, but we plan to in the next two years

Type of scenario analysis used
<Not Applicable>

Parameters, assumptions, analytical choices
<Not Applicable>

Description of outcomes for this issue area
<Not Applicable>

Explain how the outcomes identified using scenario analysis have influenced your strategy
<Not Applicable>

Explain why your organization has not conducted scenario analysis for this issue area and any plans to address this in the future
We currently do not conduct scenario analysis on forest impacts given our more immediate focus at this time on climate-related issues. As we evolve our approach, we will be exploring possible forest related scenario analysis as relevant and where considered a substantive risk or opportunity in our portfolio.

Water

Scenario analysis conducted to identify outcomes for this issue area
Yes, we have conducted scenario analysis and we have identified outcomes for this issue area

Type of scenario analysis used
Climate-related
Water-related

Parameters, assumptions, analytical choices
Assumptions and analytical choices were based on three scenarios (RCP 2.6, 4.5, 8.5) over two time periods (2045, 2070)
Parameters assessed included: annual precipitation, extreme rainfall, drought length, and sea-level rise.

Description of outcomes for this issue area
We conducted a climate-related scenario analysis to determine how drought and precipitation patterns could impact our real estate investment portfolio managed by our subsidiary GWL Realty Advisors. The results revealed regions potentially exposed to future water scarcity but generally, given the geographic distribution of our real estate properties under management, the investment portfolio was rated as having a 'low risk' exposure to water stress including drought.

Explain how the outcomes identified using scenario analysis have influenced your strategy
The outcomes have influenced our continued strategy to invest in water conservation practices at all our office buildings through our broader sustainability benchmarking and conservation program, and especially in those regions prone to water stress and/or drought.

Explain why your organization has not conducted scenario analysis for this issue area and any plans to address this in the future
<Not Applicable>

FW-FS3.3

(FW-FS3.3) Has your organization set targets for deforestation free and/or water secure lending, investing and/or insuring?

	Targets set	Explain why your organization has not set targets for deforestation free and/or water secure lending, investing and/or insuring and any plans to address this in the future
Forests	No, and we do not plan to set targets in the next two years	We currently do not have targets for deforestation free and/or water secure lending, investing and/or insuring given our more immediate focus at this time on climate-related issues. As we evolve our approach, we will be exploring possible forest and water related targets as relevant and where considered a substantive opportunity for our portfolio.
Water Security	No, and we do not plan to set targets in the next two years	We currently do not have targets for deforestation free and/or water secure lending, investing and/or insuring given our more immediate focus at this time on climate-related issues. As we evolve our approach, we will be exploring possible forest and water related targets as relevant and where considered a substantive opportunity for our portfolio.

FW-FS3.4

(FW-FS3.4) Do any of your existing products and services enable clients to mitigate deforestation and/or water insecurity?

	Existing products and services that enable clients to mitigate deforestation and/or water insecurity	Explain why your organization does not offer products and services which enable clients to mitigate deforestation and/or water insecurity and any plans to address this in the future
Forests	Yes	<Not Applicable>
Water	Yes	<Not Applicable>

FW-FS3.4a

(FW-FS3.4a) Provide details of your existing products and services that enable clients to mitigate deforestation and/or water insecurity.

Product type
Listed Equity

Taxonomy or methodology used to classify product(s)
Internally classified

Product enables clients to mitigate
Deforestation
Water insecurity

Description of product(s)
Through our asset management affiliate Putnam, we provide the Sustainable Leaders and the Sustainable Future, which includes leaders or solution providers in water and forestry-related products and services.

Type of activity financed, invested in or insured
Sustainable forest management
Forests restoration
Afforestation
Sustainable agriculture
Water treatment infrastructure

Portfolio value (unit currency – as specified in C0.4)
8119000000

% of total portfolio value
0.79

Product type
Listed Equity

Taxonomy or methodology used to classify product(s)
Internally classified

Product enables clients to mitigate
Deforestation

Description of product(s)
Through our asset management affiliate, Irish Life Investment Managers, we are investors in a forestry-related fund (Irish Forestry Unit Trust - IFUT) that invests in forestry on behalf of Irish institutional pension and charity funds.

Type of activity financed, invested in or insured
Sustainable forest management
Forests restoration

Portfolio value (unit currency – as specified in C0.4)
72645000

% of total portfolio value
0.01

FW-FS3.5

(FW-FS3.5) Does the policy framework for the portfolio activities of your organization include forests- and/or water-related requirements that clients/investees need to meet?

	Policy framework includes this issue area	Explain why your organization does not include this issue area in the policy framework and any plans to address this in the future
Forests	No, but we plan to include this issue area within the next two years	Currently, we have established an ESG framework providing investment teams with guidance on the ESG factors and risks that could impact the economic value of a company and that can be used to assess how a company performs as a steward of nature. The environmental factors we provide guidance on includes forest management covering an investees performance related to habitat fragmentation and ecosystem disruption, disruption of natural environments without sufficient mitigating measures; previous/potential regulatory penalties on biodiversity mismanagement; and measures related to environmental management ISO certifications, spills, and environmental fines. As our analysts become more familiar with applying this template guidance, we will be considering plans to make such requirements a standardized policy framework across the organization.
Water	No, but we plan to include this issue area within the next two years	Currently, we have established an ESG framework providing investment teams with guidance on the ESG factors and risks that could impact the economic value of a company and that can be used to assess how a company performs as a steward of nature. The environmental factors we provide guidance on includes resource use covering an investees performance as it relates to the use and management of water. Analysts are to consider the volume of water needed to support a company's operations, concerns over water scarcity in operating regions and the adoption of technologies that enable a more circular economy and /or the development of water conservation approaches. As our analysts become more familiar with applying this template guidance, we will be considering plans to make such requirements a standardized policy framework across the organization.

FW-FS4.1

(FW-FS4.1) Do you engage with your clients/investees on forests- and/or water-related issues?

	We engage with clients/investees on this issue area	Explain why you do not engage with your clients/investees on the issue area and any plans to address this in the future
Clients – Forests	No, but we plan to within the next two years	We currently do not engage with our clients on forest-related issues given our more immediate focus at this time on climate-related issues. As we evolve our approach, we will be exploring possible engagement activities as relevant. Putnam engages clients in water and forests to the extent that they reflect investment themes in their research, but they do not undertake separate engagement on water or forests as standalone issues separate from their process/portfolios.
Clients – Water	No, but we plan to within the next two years	Through our asset management subsidiaries we engage with clients on water-related issues, as part of broader ESG integration themes. As we evolve our approach, we will be exploring a more focused engagement activity with our clients on water related issues. Putnam engages clients in water and forests to the extent that they reflect investment themes in their research, but they do not undertake separate engagement on water or forests as standalone issues separate from their process/portfolios.
Investees – Forests	Yes	<Not Applicable>
Investees – Water	Yes	<Not Applicable>

FW-FS4.1b

(FW-FS4.1b) Give details of your forests- and/or water-related engagement strategy with your investees.

Issue area this engagement relates to
Forests

Type of engagement
Engagement & incentivization (changing investee behavior)

Details of engagement
Encourage better forests-related disclosure practices
Other, please specify (Engage with investees on measuring exposure to forest-related risks)

Investing (asset manager) portfolio coverage of engagement
0.27

Investing (asset owner) portfolio coverage of engagement

Rationale for the coverage of your engagement
Engagement targeted at investees with increased forest-related risks

Impact of engagement, including measures of success
Through our asset management affiliate Irish Life Investment Managers (ILIM), we take part in the CDP Non-Disclosure Campaign, which aims to drive further corporate transparency on various issues, including deforestation, by encouraging companies to respond to CDP disclosure requests. In 2022, ILIM's measure of success for engagements with investees was to increase the number of direct and collaborative engagements on forests above the 2021 number. Through the CDP Non-Disclosure Campaign collaborative engagement, in 2022, ILIM engaged 358 companies through the CDP Non-Disclosure Campaign on deforestation disclosure where determined to be material, which is higher than the figure of 260 in 2021. They also used the information to inform direct engagements with investees, of which 16% were on natural capital issues in 2022, including biodiversity. Additionally, ILIM conducts voting on natural capital issues through support of natural capital shareholder proposals, including on forest-related matters. For example, in 2022, ILIM voted in favour of 31 natural capital-related proposals, which is higher than the figure of 10 in 2021, including a successful vote related to deforestation from the supply chain at Home Depot. Note the coverage of engagement (asset manager) only includes AUM from ILIM.

Issue area this engagement relates to
Water

Type of engagement
Engagement & incentivization (changing investee behavior)

Details of engagement
Encourage better water-related disclosure practices
Other, please specify (Engage with investees on measuring exposure to water-related risks)

Investing (asset manager) portfolio coverage of engagement
0.07

Investing (asset owner) portfolio coverage of engagement

Rationale for the coverage of your engagement
Engagement targeted at investees with increased water-related risks

Impact of engagement, including measures of success
Through our asset management affiliate Irish Life Investment Managers (ILIM), we take part in the CDP Non-Disclosure Campaign, which aims to drive further corporate transparency on various issues, including water, by encouraging companies to respond to CDP disclosure requests. In 2022, ILIM's measure of success for engagements with investees was to increase the number of direct and collaborative engagements on water above the 2021 number. Through the CDP Non-Disclosure Campaignis collaborative engagement, For example, in 2022, ILIM engaged 476 companies through the CDP Non-Disclosure Campaign on water security disclosure where determined to be material (up from 245 in 2021). They also used the information to inform direct engagements with investees, of which 16% were on natural capital issues in 2022, including water-related issues. Additionally, ILIM conducts voting on natural capital issues through support of natural capital shareholder proposals, including on water-related matters. For example, in 2022, ILIM voted in favour of 31 natural capital-related proposals (up from 10 in 2021), including votes related to Phillip 66 preparing a report describing how the company could shift its plastic resin business model from virgin to recycled polymer production as a means of reducing plastic ocean pollution, and Tesla, Inc. preparing a report on water risk exposure. Note the coverage of engagement (asset manager) only includes AUM from ILIM.

FW-FS4.2

(FW-FS4.2) Does your organization exercise its voting rights as a shareholder on forests- and/or water-related issues?

	We exercise voting rights as a shareholder on this issue area	Issues supported in shareholder resolutions	Give details of the impact your voting has had on this issue area	Explain why your organization does not exercise voting rights on this issue area and any plans to address this in the future
Forests	Yes	Halting deforestation Other, please specify (Understanding how forests are managed and promoting disclosure)	Through our asset management affiliates, we have exercised our voting rights as a shareholder on material forest-related issues. For example, through Irish Life Investment Managers, we have voted in favour of well-constructed shareholder proposals on forest-related topics. Specifically, in 2022, ILIM voted in favour of 31 natural capital-related proposals, which is higher than the figure of 10 in 2021, including a successful vote related to deforestation from the soy supply chain at Home Depot.	<Not Applicable>
Water	Yes	Reduce water pollution Other, please specify (Understanding how water-related risks are managed and promoting disclosure)	Through our asset management affiliates, we have exercised our voting rights as a shareholder on material water-related issues. For example, through Irish Life Investment Managers, we have voted in favour of well-constructed shareholder proposals on water-related topics. Specifically, ILIM voted in favour of 31 natural capital-related proposals (up from 10 in 2021), including votes related to Phillip 66 preparing a report describing how the company could shift its plastic resin business model from virgin to recycled polymer production as a means of reducing plastic ocean pollution, and Tesla, Inc. preparing a report on water risk exposure.	<Not Applicable>

FW-FS4.4

(FW-FS4.4) Does your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may impact forests and/or water security?

	External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact this issue area	Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact this issue area	Explain why you do not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact this issue area
Forests	Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact this issue area	<Not Applicable>	<Not Applicable>
Water	Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact this issue area	<Not Applicable>	<Not Applicable>

FW-FS5.1

(FW-FS5.1) Does your organization measure its portfolio impact on forests and/or water security?

	We measure our portfolio impact on this issue area	Explain how your organization measures its portfolio impact on this issue area, including any metrics used to quantify impact	Primary reason for not measuring portfolio impact on this issue area	Explain why your organization does not measure its portfolio impact on this issue area and any plans to change this in the future
Banking – Impact on Forests	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Banking – Impact on Water	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Investing (Asset manager) – Impact on Forests	No, but we plan to in the next two years	<Not Applicable>	Important but not an immediate priority	While important, we are currently focused on engaging with our investees on their approach to managing risks related to forests, where considered material. In future years, as we evolve our approach, we will plan to compile portfolio impact information.
Investing (Asset manager) – Impact on Water	No, but we plan to in the next two years	<Not Applicable>	Important but not an immediate priority	While important, we are currently focused on engaging with our investees on their approach to managing risks related to water, where considered material. In future years, as we evolve our approach, we will plan to compile portfolio impact information.
Investing (Asset owner) – Impact on Forests	No, but we plan to in the next two years	<Not Applicable>	Important but not an immediate priority	While important, we are currently focused on engaging with our investees on their approach to managing risks related to forests, where considered material. In future years, as we evolve our approach, we will plan to compile portfolio impact information.
Investing (Asset owner) – Impact on Water	No, but we plan to in the next two years	<Not Applicable>	Important but not an immediate priority	While important, we are currently focused on engaging with our investees on their approach to managing risks related to water, where considered material. In future years, as we evolve our approach, we will plan to compile portfolio impact information.
Insurance underwriting – Impact on Forests	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Insurance underwriting – Impact on Water	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

FW-FS5.2

(FW-FS5.2) Does your organization provide finance or insurance to companies operating in any stages of the following forest risk commodity supply chains, and are you able to report on the amount of finance/insurance provided?

	Finance or insurance provided to companies operating in the supply chain for this commodity	Amount of finance/insurance provided will be reported	Explain why your organization is unable to report on the amount of finance/insurance provided for this commodity
Lending to companies operating in the timber products supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Lending to companies operating in the palm oil products supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Lending to companies operating in the cattle products supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Lending to companies operating in the soy supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Lending to companies operating in the rubber supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Lending to companies operating in the cocoa supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Lending to companies operating in the coffee supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Investing (asset manager) to companies operating in the timber products supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset manager) to companies operating in the palm oil products supply chain	Yes	Yes	<Not Applicable>
Investing (asset manager) to companies operating in the cattle products supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset manager) to companies operating in the soy supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset manager) to companies operating in the rubber supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset manager) to companies operating in the cocoa supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset manager) to companies operating in the coffee supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset owner) to companies operating in the timber products supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset owner) to companies operating in the palm oil products supply chain	Yes	Yes	<Not Applicable>
Investing (asset owner) to companies operating in the cattle products supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset owner) to companies operating in the soy supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset owner) to companies operating in the rubber supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset owner) to companies operating in the cocoa supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Investing (asset owner) to companies operating in the coffee supply chain	Yes	No, but we plan to assess our portfolio's exposure to this commodity in the next two years	At this time, we do not have data readily available for reporting purposes given the level of effort needed to consolidate this information across the organization. Over the coming years, we plan to consolidate this information for reporting.
Insuring companies operating in the timber products supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Insuring companies operating in the palm oil products supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Insuring companies operating in the cattle products supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Insuring companies operating in the soy supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>

	Finance or insurance provided to companies operating in the supply chain for this commodity	Amount of finance/insurance provided will be reported	Explain why your organization is unable to report on the amount of finance/insurance provided for this commodity
Insuring companies operating in the rubber supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Insuring companies operating in the cocoa supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>
Insuring companies operating in the coffee supply chain	<Not Applicable>	<Not Applicable>	<Not Applicable>

FW-FS5.2a

(FW-FS5.2a) For each portfolio activity, state the value of your financing and/or insurance of companies operating in forests risk commodity supply chains in the reporting year.

Investing (asset manager) to companies operating in the palm oil products supply chain

Forest risk commodity supply chain stage coverage
Production
Processing
Trading
Manufacturing

Portfolio exposure (unit currency – as specified in C0.4)
1251655309.35

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage portfolio value
0.1

Investing (asset owner) to companies operating in the palm oil products supply chain

Forest risk commodity supply chain stage coverage
Production
Processing
Trading
Manufacturing

Portfolio exposure (unit currency – as specified in C0.4)
1044424581

New loans advanced in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Total premium written in reporting year (unit currency – as specified in C0.4)
<Not Applicable>

Percentage portfolio value
0.4

FW-FS6.1

(FW-FS6.1) Have you published information about your organization's response to forests- and/or water-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Focus of the Publication
Water Security

Publication
In a voluntary sustainability report

Status
Complete

Attach the document
ILIM_responsible-investing-annual-review-2022.pdf

Page/Section reference
Lifeco subsidiary Irish Life Investment Manager's 2022 Responsible Investing Review covers investee engagement on ESG with natural capital as one of four thematic priorities. Pages 3, 5, 8, 9, 11, 15-17, 21-23 all include metrics and information on natural capital. Water is specifically called out on p. 11, 15, 16, 17, 21, and 22.

Content elements
Response to forests- and/or water-related risks and opportunities

Comment
Lifeco subsidiary Irish Life Investment Manager's 2022 Responsible Investing Review covers investee engagement on ESG with natural capital as one of four thematic priorities. Pages 3, 5, 8, 9, 11, 15-17, 21-23 all include metrics and information on natural capital. Water is specifically called out on p. 11, 15, 16, 17, 21, and 22.

Focus of the Publication
Forests

Publication
In a voluntary sustainability report

Status
Complete

Attach the document
ILIM_responsible-investing-annual-review-2022.pdf

Page/Section reference
Lifeco subsidiary Irish Life Investment Manager's 2022 Responsible Investing Review covers investee engagement on ESG with natural capital as one of four thematic priorities. Pages 3, 5, 8, 9, 11, 15-17, 21-23 all include metrics and information on natural capital. The topic of forests is specifically called out on p. 15, 21, and 22.

Content elements
Response to forests- and/or water-related risks and opportunities

Comment
Lifeco subsidiary Irish Life Investment Manager's 2022 Responsible Investing Review covers investee engagement on ESG with natural capital as one of four thematic priorities. Pages 3, 5, 8, 9, 11, 15-17, 21-23 all include metrics and information on natural capital. The topic of forests is specifically called out on p. 15, 21, and 22.

Focus of the Publication
Water Security

Publication
In a voluntary sustainability report

Status
Complete

Attach the document
Putnam Engagement and Stewardship Report Dec 2022.pdf

Page/Section reference
Lifeco subsidiary Putnam's 2022 Engagement Report covers investee engagement on ESG including biodiversity. Pages 6, 7, 9, 10, 13, 28-30 (as referenced on document page) all include metrics and information on water within biodiversity.

Content elements
Response to forests- and/or water-related risks and opportunities

Comment
Lifeco subsidiary Putnam's 2022 Engagement Report covers investee engagement on ESG including biodiversity. Pages 6, 7, 9, 10, 13, 28-30 (as referenced on document page) all include metrics and information on water within biodiversity.

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In which language are you submitting your response?
English

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