## The Land Development Agency Sustainable Development Strategy

## 2024-2028





# Foreword

The Land Development Agency is fast becoming one of Ireland's most significant providers of homes. By 2028, it will deliver around 13,000 much needed new social and affordable homes for families and individuals around the country.

In undertaking this significant programme of housing and community creation, the LDA is conscious of the impact on ecological and social systems that the development and operation of buildings can have and has devised a plan to mitigate these effects.

Our Sustainable Development Strategy considers the near and long term impacts of our activities, ensuring that we mitigate negative environmental impacts, while optimising the conditions that support enhanced biodiversity and the creation of social value. It places sustainability at the core of our mission, informing the priorities we set, the ways we work, and the outcomes we deliver.

Our focus is centred around two main strategic objectives - mitigating our carbon impacts (operational and embodied), and enhancing biodiversity across the LDA's portfolio of developments. It sets out tangible actions, grounded in a structured, evidence-based approach, to realise these objectives.

This isn't just a plan for the future, it is being implemented now. Sustainability targets are embedded in all LDA projects and were made a requirement of our current housebuilder partnership framework (known as 'Project Tosaigh'). Any housebuilder wishing to partner with the LDA must meet strict sustainability criteria. Similarly, our recently produced Apartment Typology booklet, which aims to standardise our approach to

apartment design, provides guidance to design teams on LDA requirements for apartment buildings to facilitate the efficient delivery of affordable homes.

The Strategy sends a clear signal of intent to our stakeholders and to the public of the LDA's ambition to be leaders in the creation of sustainable homes and communities. We want to be a driver of positive change in the planning, design, construction and stewardship of the built environment for the benefit of all. The Sustainable Development Strategy maps out that pathway.

The Strategy:

- Formalises and integrates sustainable development principles into LDA-wide practices;
- Establishes Governance around sustainability issues and develops understanding of our reporting and disclosures obligations;
- · Establishes the basis for our ambition to be market leaders in sustainable development;
- Plans, implements, measures, reports on and improves our practices for the benefit of our tenants, the communities in which we work and the wider environment.

The LDA is keenly aware of the dynamic regulatory environment driving stricter climate mitigation and adaptation targets. The Strategy is aligned with the UN Sustainable Development Goals, European legislation, directives and ambitions, national strategic and policy objectives in the National Planning Framework, the Climate Action and Low Carbon Development Act, the Energy Efficiency Directive and the LDA Act.

But, we want to go further, to be proactive. We will get ahead of the legislation and ensure that the homes



and communities which we are designing and building today meet the needs of our homeowners and tenants into the future.

Our LDA values system shapes everything we do. It guides our work and encourages us to do better. One of our central values is sustainability. Others include innovation and collaboration. All three are intertwined. It is only through innovation and collaboration with partners that we will achieve our sustainability objectives. As we develop our own research capabilities, we will strengthen the work already being undertaken in partnership with other public bodies, our industry peers, and third level institutions to support and promote innovation and an industry-wide shift to more sustainable planning, urban design and housing solutions.

The development of this Strategy has been made possible through the significant effort and dedication of the sustainability team in the LDA. We would like to thank them for their work and ongoing passion and commitment to the LDA vision of delivering homes that are economically, environmentally and socially sustainable.

In particular, we would like to acknowledge the Sustainability Working Group, The Strategic Planning and Sustainability Committee of the LDA and the LDA Board for their contributions and support during the process of developing this Strategy. We look forward to working with our partners, stakeholders, homeowners and tenants as we move towards a more sustainable future.

John Coleman, CEO



## Contents

1 Introduction	1	8 Next Steps	35
2 Strategy Overview and Governance	3	Appendix 1: Bibliography	37
3 Our Journey So Far	5	Appendix 2: Abbreviations	39
4 Policy and Legislative Context	9	Appendix 3: Policy and Legislative Context - Additional Information	
5 Strategic Objectives and Aims	13		40
6 CSRD Alignment and Reporting	29		
7 Priority Actions aligned with Business Pla	ın <mark>31</mark>		

# **1**Introduction

The Land Development Agency (LDA) is a commercial State Body established in 2018. It was created with the purpose of maximising the supply of affordable and social homes in Ireland via the management and development of land within State control.

Our purpose is to provide affordable and social homes to meet the needs of the nation, delivering a social return and a stable, national capacity to support sustainable, inclusive and vibrant communities. We seek to:

- Support compact growth and promote active and sustainable modes of travel;
- Make more efficient use of land within state control;
- Provide affordable, climate adaptive & low-carbon homes;
- Deliver a social return from the development and regeneration of communities.

It is acknowledged that in pursuance of our core purpose, the totality of our actions will create significant demand for resources and energy which will have an environmental impact. We will work to quantify and limit the potential impacts of our activities whilst endeavouring to leverage the opportunities that exist to support the creation of social value and biodiversity gains as well as promoting circularity in

the built environment. Our ambition is to optimise building performance, minimise environmental impacts and support the creation of social value in LDA developments and their surrounds. We will do this in a financially sustainable manner, operating within market norms and the affordability constraints set out in legislation. In this context, all further references to sustainable development in this document should be taken to mean developments which are environmentally, socially and economically sustainable.

The guiding principles which inform how we address sustainability are as follows:

Mitigation

Endeavouring to mitigate the environmental impacts of our activities (land use, carbon, water & waste) through the sustainable location, design, development, and ongoing management of our assets. The LDA will adopt an energy and resource demand reduction approach across the development lifecycle.

#### Regeneration

Optimising the regenerative potential of our activities through strategic site screening and selection which supports compact growth and modal shift. The LDA will explore the opportunities for adaptive re-use of existing built assets and biodiversity enhancement contributing to the realisation of positive social impact.

#### Innovation

Supporting innovation and promoting industry-wide change to a more sustainable future through the exploration and adoption of innovative and community focused,

planning, urban design and housing solutions. The LDA will develop its own research capabilities and support and collaborate on relevant research initiatives led by other public bodies, our industry peers and third level institutions.

At the core of this strategy is a commitment to achieve a balanced societal gain over the lifetime of our developments. We seek to optimise the balance between environmental, social and economic principles and to enable healthy lives in connected, sustainable communities.

We have identified that our two main strategic objectives in the short to medium term are:

- Mitigating our embodied carbon impact: and
- Focusing on the potential for Biodiversity Net Gain (BNG) across our portfolio.

These are part of a suite of six strategic objectives which form the core of this strategy and which will enable us to deliver on our guiding principles and vision. These objectives are as follows:

- Reduce Carbon (Embodied and Operational);
- Promote Water Stewardship;
- Optimise Sustainable Land-Use & Mobility;
- Enhance Biodiversity & Climate Resilience:
- Promote Circularity;
- Support the Creation of Social Value.

## LDA Vision and Purpose



## **Sustainability Guiding Principles**

Mitigation: Limiting and Lowering Impacts

**Regeneration:** Optimising Regenerative Potential

## **Sustainability Strategic Objectives**



Provide Affordable, Climate Adaptive, Low-Carbon Homes

**Deliver a Social Return for Communities Now** and into the Future

Innovation: Supporting Innovation and Promoting Industry-wide Change

Enhance **Biodiversity** & Climate Resilience

Promote Circularity Support the **Creation of** Social Value

# **2 Strategy Overview** and Governance

#### Purpose of the Strategy

The aim of this document is to:

- Identify actions needed to support the delivery of homes in line with LDA sustainability-related strategic objectives and regulatory requirements,
- · Formalise the sustainabilityrelated ambitions of the Agency, consolidating new and existing actions into a coherent structure,
- Bring consistency to our sustainability approach, embed and support the achievement of the strategic objectives across the LDA.

This strategy elaborates on the six strategic objectives set out in the LDA Sustainability Policy. It identifies aims and actions needed to deliver on the objectives, and to embed them across the Agency. An overview of the governance and implementation approach is outlined, and this will be developed further in a supporting work programme currently being drafted.

The strategy is intended to be read by LDA board members. management and staff, as well as external design teams, collaborators and stakeholders.

#### Governance & Oversight

This section should be read alongside the governance structure diagram in Section 8 Next Steps on pg.35.

The LDA Board and Executive Management Team (EMT) is responsible for oversight and delivery of the Sustainable Development Strategy and the Agency's wider Environmental

Social and Governance (ESG) remit under its CSRD obligations. The EMT is accountable to the Board and its sub-committees, and is supported by Lead Staff in areas including Sustainability, Governance, Procurement and HR.

Two sub-committees of the Board play a role in overseeing the delivery of the workstreams within the scope of this strategy. Further sub-committees may have oversight of governance and social indicators aligned with CSRD obligations which are outside the scope of this strategy. The Sustainability Working Group, Governance Framework Working Group, Risk Management Working Group and LDA Staff will support Lead Staff & EMT in the delivery of the actions in the Sustainable Development Strategy as agreed.

Reporting through this governance structure to the Board will be carried out on a quarterly basis, in line with the target approaches outlined in the Commercial Semi-State (CSS) Framework and will be developed around the three workflows.

#### Sustainable Development Strategy and Workflows

This strategy is a key component in a group of sustainability-focused LDA documents called the Sustainable Development Framework. These components support the strategic objectives and regulatory obligations through Agency-wide coordination, project delivery and reporting requirements. The framework will be managed through three workflows: Strategic Objectives, Project Support and Agency-wide Alignment.

Workflow 1	Workflow 2	Workflow 3		
Strategic Objectives	Project Support	Agency-wide Alignment		
Action Plan - Aims, Actions & Outcomes - Establishing Strategic Targets.	Ensuring strategic targets & reporting requirements are integrated into project level design, delivery, management & reporting.	Coordination with other LDA policies, strategies, templates, guidelines and reporting requirements under the CSRD and the CSS Framework for Commercial State Bodies through the Governance Framework Working Group. Includes the development of a CSRD readiness pathway, to commence reporting in 2025.		

	Policy	Strategy	Manage	Monitor	Align
velopment ork	Sustainable Development Policy	Sustainable Development Strategy	Sustainable Design Guidelines	Sustainable Design Metrics & Reporting Table	Agency-wide alignment
Sustainable De Framew	This sets out the Agency's overall sustainability approach	This details the six sustainability-related strategic objectives and arising actions	Five documents containing design team guidance on various aspects of design development	This sets out target performance metrics and reporting requirements to support design teams	This comprises a governance approach, programme etc for CSRD & CSS alignment contained in the action plan
Alignment	Policies in relation to: • Investment Management • Asset Management • Construction Cost Management • Environmental • Equality & Diversity • Procurement • Economic Appraisal • Financial Disclosures	Strategies in relation to: • Corporate Strategy & Business Plan • Code of Business Conduct • Land Acquisition • Community Benefit • Asset Management	Guidance in relation to: Investment Model Heads of Terms Standard Forms for Collateral Contracts Development Procedure Development Execution Development Brief Scope of Services Typology Handbook Pipeline Development CSES Employers Requirements	<ul> <li>EMT Reports</li> <li>Transaction Report Template</li> <li>DSR Reporting Template</li> <li>DM Reporting</li> <li>Construction Phase</li> <li>Environmental Register</li> <li>Asset Management Reporting</li> <li>Risk Register</li> <li>Annual Report &amp; Financial Statements (CSRD)</li> </ul>	<ul> <li>CSS commitments and target approaches</li> <li>CSRD readiness pathway</li> <li>Integrated IT systems to support data capture, processing and reporting</li> <li>Governance Framework Working Group Terms of Reference</li> <li>Sustainability Working Group Terms of Reference</li> </ul>

### 2018

# **3 Our Journey So Far**

#### Home Performance Index (HPI)

In November 2021 the LDA Board adopted the Irish Green Building Council's (IGBC) HPI as its primary sustainability assessment methodology. The early adoption of HPI has facilitated a culture of target setting, quality assurance and measurement across key environmental, social and economic indicators on our projects. At the time of publication, all LDA-led development projects have been registered with HPI and all projects are currently on track to achieve certification.

#### LDA Sustainability Working Group

In 2022, the LDA Sustainability Working Group was established to support the development of the LDA's Sustainable Development Policy and Strategy. It ensures that sustainability is considered and integrated across all LDA functional areas, in line with its statutory obligations and strategic ambitions. The group monitors and reports on evolving policy and legislation relating to climate action and sustainability, and how this impacts the Agency's activities including, planning, design, construction & delivery, asset management, finance & investment.

#### **CSS** Framework

In April 2023 the LDA Board adopted the NewERA Framework for Commercial State & Semi-State Bodies. The framework sets out a series of commitments and target approaches which provide guidance on how companies can demonstrate compliance with their climate action obligations under the Climate Action & Low Carbon Development Act 2021. The target objectives will be met through the relevant processes referred to in the strategy. Overview and progress will be reported to the LDA Board and NewERA on a regular basis.

#### Strategic Partnerships

In 2021 the LDA became a Strategic partner of the **Construction Sector Group**, established by the Department of Public Expenditure to provide a platform for structured dialogue between government and industry on how to achieve and maintain a sustainable and innovative construction sector which can deliver on the aspirations of the National Development Plan (NDP).

The LDA became an **IGBC Gold member** in 2023. Through our membership of the IGBC we have participated on technical committees and steering groups with our industry peers to establish best practice approaches to decarbonising the built environment in Ireland. Membership of the IGBC has also supported training and up-skilling of LDA staff.

#### In 2024 The LDA will become a patron member of

**Construct Innovate**, the National Construction & Technology Centre, established as one of the core actions of the Construction Sector Group. This is a significant development of a relationship established through previous engagement in research programmes with Construct Innovate and will support not only the LDA's strategic ambitions but also industry-wide dissemination of best practice and innovative approaches to sustainable development.

The LDA engages regularly with Government Departments and State Agencies through committees and steering groups on many sustainability issues, including but not limited to compact growth and sustainable mobility, district heating, decarbonisation of concrete and the use of biobased building materials.

#### **Research Initiatives**

The LDA has actively supported research on sustainability in the built environment since its establishment. In 2020 the LDA co-sponsored the development of a free to use online tool for measuring whole life carbon in buildings, Carbon Designer for Ireland, developed by the IGBC. We are currently supporting research initiatives concerning biodiversity in the built environment, post-occupancy evaluation of building performance and tenant wellbeing, and developing a national methodology for whole life carbon evaluation. 2019: National Climate and Biodiversity Emergency Declared  Nearly Zero Energy Building (NZEB) requirement introduced in Part L of Building Regulations

2020

Climate Action
 & Low Carbon
 Development
 Act

2022

 National Carbon Budgets & Sectoral Ceilings Set

 EU Restoration Law Passed

## 2024

- Update to the Energy Performance of Buildings Directive (EPBD) to be launched
- New National Climate Adaptation Framework to be launched

- National Planning Framework (NPF) is published setting out the intention for a state agency to manage the regeneration of public lands for the purpose of building affordable homes
- National Development Plan is published setting out ten year investment strategy
- Land Development Agency is established

### 2019

- Partnership with Dún Laoghaire Rathdown County Council to deliver Shanganagh, the largest Passive House residential project
- LDA Corporate Strategy & Business Plan
   completed

## 2021

- IGBC's HPI adopted by the LDA Board as its primary sustainability methodology
- Strategic partner of the CSG
- Shanganagh Passive House scheme commences on site
- Co-sponsor of Carbon Designer Ireland, with the Environmental Protection Agency (EPA)
- Sustainability Working Group established

## 2023

- NewERA Framework for CSS Bodies adopted
- Sustainable Design Metrics & Reporting Table

6

- launched to support Taxonomy alignment
- IGBC Gold Membership
- LDA Sustainability Strategy launched

# Innovation on LDA Projects

#### **Building Performance Standards -**Passive House



Shanganagh, Shankill, Co. Dublin.

The Passive House Standard is the world's most rigorous energy standard focusing on occupant comfort and ultralow energy use. Set to be one of Europe's largest certified Passive House housing schemes, the Shanganagh project, jointly delivered with Dún Laoghaire Rathdown County Council, underlines the LDA's commitment to delivering affordable, sustainable communities. As the first Passive House development at this scale in Ireland it will provide a significant opportunity for the LDA to access in-use data for comparative analysis with other energy performance standards including NZEB and the impending Zero Energy Building (ZEB) standard. This research and analysis will inform recommendations for the optimal energy performance standard for use in affordable homes. The first phase of the project is due for completion in Q4 2024.



#### Adaptive Re-Use -Integrated Capitals Framework Approach

**St. Bricin's Military Hospital,** Stoneybatter, Dublin 7 Digital Hub, Thomas Street, Dublin 8.

瓜瓜

The Integrated Capitals Framework is an approach that considers various forms of capital to assess the comprehensive impact of development initiatives. It goes beyond economic considerations, incorporating environmental, social, and cultural dimensions essential for the long-term resilience and vitality of available spaces in cities. The adaptive reuse of existing buildings at St. Bricin's College and Digital Hub was qualitatively assessed against the Integrated Capitals framework using Multi-Criteria Analysis (MCA). Amongst the preliminary findings was that the refurbishment of the existing buildings would mean a saving of 2,644 tonnes of CO2e, when compared to a newbuild brownfield development.

The study also explores the potential for accelerated delivery of much needed homes through adaptive re-use by making use of existing exemptions which can facilitate works to existing building fabric being undertaken in parallel with other statutory processes e.g. change of use planning applications or fire safety.



**Biodiversity Net Gain (BNG)** Natural England Metric



Sandy Quarter Framework Plan Galway City Centre

The LDA trialled the use of the Natural England Metric on the Sandy Quarter Framework Plan in Galway City. The methodology was used to quantify the multi-functional benefits of integrated landscape, urban design & Sustainable Drainage System (SUDS) design and establish measurable BNG targets. Since piloting the use of the Natural England Metric, it has been applied to the majority of LDA projects. Feedback and reporting from these projects will give us a clearer indication at site and portfolio level of the potential for regenerative impact on our urban sites. These insights will support the development of a strategy around our future ambitions aligned with emerging policy, legislation & targets at EU and national level.





#### **Post Occupancy Evaluation –** Building Performance & Tenant Wellbeing



#### Heat Check Research Programme

(In collaboration with NUIG, Construct Innovation and MaREI) Archers Wood, Delgany, Co. Wicklow

In partnership with Construct Innovate & Cairn Homes the LDA will commence the monitoring of building fabric and systems performance at 96 apartments in Archers Wood, which have been acquired by the LDA under the Project Tosaigh forward purchase scheme. The research will be carried out under the Heat Check Research Programme to support industry-wide knowledge of building and systems performance and progress a number of LDA strategic objectives including reducing operational carbon, improving water stewardship and supporting tenant wellbeing. The findings at the end of the research period will help to inform how the LDA devises and implements a structured monitoring regime across its portfolio, including minimum monitoring & reporting requirements supplemented by more detailed representative sampling. This monitoring and disclosure process will be developed to support continuous improvement in our processes.



# 4 Policy and Legislative Context

The LDA's sustainability-related strategic objectives are aligned with and are derived from policies, charters, directives and legislation at a global, European and national level.

#### Global

Ireland is a signatory to the legally binding 2015 Paris Climate Agreement which establishes that exceeding 1.5°C above preindustrial levels risks severe climate change impacts. The first global stocktake of progress in 2023 found that temperatures are on track to increase by 2.1°C to 2.8°C<sup>1</sup>. Deep, rapid reductions in emissions are urgently needed <sup>1,2</sup>. The Agreement also emphasises the importance of implementing adaptation measures <sup>3</sup>. The LDA recognises the urgency of this situation and the significance of its impact.

The UN Sustainable Development Goals (SDG's) set out a holistic ambition where addressing social and economic challenges go hand in hand with tackling climate change and preserving the natural world. In 2023, the UN High Level Political Forum on Sustainable Development noted that whilst progress was made by the EU on socio-economic indicators, that insufficient progress on environmental objectives had been achieved <sup>4</sup>.

The Kunming-Montreal International Biodiversity Framework, adopted by Ireland, sets out a vision to achieve a world living in harmony with nature by 2050. It includes targets such as 30% of land and sea to be protected globally by 2030  $^{5}$ .

#### European

The Energy Performance of Building Directive (EPBD) is part of the EU 'fit for 55' package, aimed at setting the EU on the path towards net zero Greenhouse Gas (GHG) emissions (climate neutrality) by 2050. A provisional agreement has been reached on a revision to the directive, which will be formally adopted in March 2024. Amongst the measures is that Zero Energy Buildings (ZEB) is the new standard, replacing the Nearly Zero Energy Buildings (NZEB) standard <sup>6</sup>.

EU Taxonomy, adopted by the European Commission as a series of delegated acts under Taxonomy Regulation, comprises a classification system related to ensuring green investment under the EU Green Deal. EU Taxonomy encompasses a broad range of criteria, with sections on construction (7.1 & 7.2), acquisition and ownership (7.7) relevant to the LDA <sup>7</sup>.

Alongside EU Taxonomy regulation, the Corporate Sustainability Reporting Directive (CSRD) is a central component in EU sustainability reporting requirements and includes a full range of Environmental, Social and Governance (ESG) criteria. Data must be third party audited and meet specific requirements <sup>8</sup>.

Under the EU Biodiversity Strategy, the EU Restoration Law adopted in February 2024 <sup>9</sup> sets legally binding targets for at least 20% of EU's land and sea areas to be restored by 2030. Targets include no net loss of urban green space by 2030.

#### National

The Climate Action and Low Carbon Development Act <sup>10</sup> sets Ireland on a legally binding path to net-zero no later than 2050. Under the Act, as a relevant body, the LDA is required to perform its functions in a manner consistent with the most recent approved:

- Climate Action Plan,
- National long term Climate Action Strategy,
- National Adaptation Frameworks and sectoral adaptation plans,
- The furtherance of the national climate objective to achieve the transition to a climate resilient, biodiversity-rich, environmentally sustainable and climate neutral economy, and
- The objective of mitigating GHGs and adapting to the effects of climate change.

The Act establishes the CSS Framework, which has been adopted by the LDA board.

The National Biodiversity Action Plan, published 2024, recognises that the economy and society are wholly embedded within the environment and biosphere, rather than separate to it. It sets planning and development targets, such as that all public authorities are to move towards no net loss of biodiversity by 2030 <sup>11</sup>.

The strategic objectives contained in this strategy align with the National Strategic Outcomes contained in the NPF such as compact growth, sustainable mobility and transition to a low carbon and climate resilient society <sup>12</sup>.

		Strategic Objectives						
	Reduce Carbon	Promote Water Stewardship	Optimise Sustainable Land-Use & Mobility	Enhance Biodiversity & Climate Resilience	Embed Circularity	Support the Creation of Social Value		
United Nations Sustainable Development Goals (UN SDGs)	<b>V</b>	<b>V</b>	¥	¥	¥	¥		
Paris Climate Agreement	<b>V</b>			¥		¥		
Kunming-Montreal International Biodiversity Framework	<b>V</b>	<b>V</b>	¥	¥		¥		
EU Taxonomy	<b>V</b>	<b>V</b>	<b>V</b>	¥	<b>V</b>			
Corporate Sustainability Reporting Directive (CSRD)	<b>V</b>	¥	¥	<b>V</b>	<b>V</b>	<b>V</b>		
Geneva UN Charter on Sustainable Housing	<b>V</b>	¥	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>		
Energy Performance of Buildings Directive (EPBD)	<b>V</b>		<b>V</b>			¥		
Energy Efficiency Directive (EED)	<b>V</b>					¥		
EU Nature Restoration Law	<b>V</b>	<b>V</b>	<b>V</b>	¥	<b>V</b>	<b>V</b>		
EU Anti-Deforestation Policy	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>		
National Planning Framework (NPF)	<b>v</b>	¥	<b>V</b>	<b>V</b>	~	<b>V</b>		
Climate Action & Low Carbon Development Act	<b>v</b>	¥	<b>v</b>	<b>V</b>	~	<b>V</b>		
National Biodiversity Action Plan	¥	¥	¥	~		~		

For further information on the above policies, charters, directives and legislation please refer to Appendix.

## **Policy and Legislation Timeline**



**Energy Performance** of Buildings Directive: 2019, Part L of the

**Building Regulations** updated, all new buildings are required to be built to Nearly Zero Energy Building (NZEB) standards.

2019

**Climate Action** and Low Carbon **Development Act:** 2021 is published setting Ireland on legally binding pathway to net-zero emissions no later than 2050, and to a 51% reduction in emissions (relative to 2018) by 2030.

2022: Following on from the Act above, Ireland's Carbon Budget & Sectoral Ceilings Agreed, including for newbuild residential.

2021

Kunming-Montreal

adopted by parties

**Biological Diversity** 

such as 30% of land

and sea protected

globally by 2030.

including targets

to the Convention on

2022: The

International

Biodiversity

Framework is

**UN Sustainable Development Goals** (UN SDGs): Second voluntary national review (VNR) of progress published by Ireland, coinciding with a global 'reboot' of the UN 2030 Agenda and following publication of Ireland's second National

National Planning Framework: Process of revising the NPF commences.

Implementation Plan

for the UN SDGs.

#### National Biodiversity Action Plan

launched, with planning and development targets included, and a vision for biodiversity in 2050 that is valued, conserved, restored and sustainably used.

M&R Gap to Target

Modellina: LDA have proposed 2024 as the baseline modelling year for establishing LDA targets.

National Adaptation Framework: revision to be published.

2024

2026

Corporate Sustainability and **Reporting Directive** (CSRD): 2026 is the first year of mandatory reporting required for an organisation such as the LDA. Reporting is based on information collected in 2025.

**Climate Action** and Low Carbon **Development Act:** Alignment with Energy Performance of Buildings Directive (see below).

2027

#### **Energy Performance** of Building Directive (EPBD): by 2027:

- Life-cycle Global Warming Potential (GWP) disclosure for all new buildings >2,000sqm
- ZEB standard for new buildings owned/occupied by public authorities (applies to LDA projects)
- 100% energy demand to be covered by renewable energy generated on site averaged over a year.

### 2023

**EU Restoration Law:** 

Provisional political agreement reached including a target to restore at least 20% of the EU's land and sea areas by 2030. Targets for greening in urban areas also set.

#### **Paris Climate**

Agreement: First global stocktake published finding trajectories are not in line with the temperature goal of limiting warming to critical threshold of 1.5°C above 2019 levels.

**Energy Performance** of Buildings Directive Revision: Ratified March 2024 with introduction of Zero Energy Buildings (ZEB) standard, whole life carbon (WLC) disclosure, new requirements around renewables, sustainable mobility and building renovation.

#### EU Deforestation Law:

This law will start to apply with implications for supply chains and operators.

#### Energy Efficiency

Directive: No investment in fossil fuels by public bodies, 'energy efficiency first' principle given priority and legal standing.

**Global and European** 

National

#### **Climate Action** and Low Carbon **Development Act:** Commercial Semi-

State companies are, by 2030, to achieve:

- 51% Reduction in GHG Emissions
- 50% Reduction in Fossil Fuel Use (relative to a baseline to be confirmed)
- All new buildings design and constructed to ZEB standard.

National Biodiversity Action Plan: No net loss of urban green space.

## 2030

#### **UN Sustainable Development Goals:** Majority of targets relating to the 17 goals to be achieved.

#### **Paris Climate**

Agreement: 50 per cent cut (from 2019) to be achieved to remain below critical 1.5 °C threshold.

**EU Restoration Law:** No net loss of urban green space.

2035: EPBD; by 2035, fossil fuel based heating systems to be phased out (2040 latest) and,

2031-2034: Introduction of performance standards in building regulations

#### **Climate Action** and Low Carbon **Development Act:** Achieve the transition

to a climate resilient. biodiversity-rich, environmentally sustainable and climate neutral economy.

**Climate Action** and Low Carbon Development Act: All buildings (new and existing) to achieve ZEB standard.

## 2050

 $\rightarrow$ 

#### **Energy Performance** of Buildings Directive:

Achieve a ZEB stock (both new and existing buildings) in line with the European Climate Law target of economywide climate neutrality by 2050.

#### Paris Climate

Agreement: Net Zero Carbon Emissions by 2050 to remain below critical 1.5 °C threshold.

#### EU Restoration Law: All ecosystems restored, 5% increase urban green space, 10% increase urban tree cover.

# **5** Strategic Objectives and Aims

At the core of this Sustainable **Development Strategy** are six strategic objectives which seek to mitigate the environmental impacts of our activities, optimise the regenerative potential of our projects and support innovation and industry-wide change. To structure the realisation of these objectives, twentyone aims have been identified. These objectives and aims align with, and are derived from global, European and national legislation and policy as shown in the previous section.

Strategic Objective	Aim
	Develop an LDA Climate Action Roadmap
	Develop capability for carbon accounting
Reduce Carbon (Embodied &	Pursue a design-led approach to embodied carbon reduction
Operational Carbon)	Design for energy efficiency and operational carbon reduction
	Minimise the performance gap for improved tenant comfort and affordability
	Develop LDA approach to water stewardship
Promote Water	Ensure LDA sites are resilient to surface water and tidal flooding
Stewardship	Reduce potable water usage and optimise supply
	Prevent water pollution and maintain water quality
Optimise Sustainable	Support compact growth
Land-Use & Mobility	Champion modal shift and sustainable mobility
	Measurably increase biodiversity
Enhance Biodiversity & Climate Resilience	Prioritise the use of Nature Based Solutions (NBS) to support climate resilience
	Develop LDA approach to climate adaptation
_	Maximise resource efficiency and circularity
Promote	Design for changes in future use
Circularity	Treat waste as a resource
	Develop a social value framework
Support the	Promote community integration and betterment
Creation of Social Value	Support tenant well-being

### **Establishing Strategic Targets**



In some cases, an aim and any associated target, can be implemented immediately. This applies especially when an aim falls within existing affordability constraints, and aligns with normative practices. In other cases, preparatory actions may need to be undertaken to inform how an aim can be achieved and to establish what the associated target should be.

#### Non-Residential and Adaptive Re-Use:

The targets set out on the following pages which apply to building performance relate to residential, new-build proposals only. The LDA approach to adaptive re-use is being progressed as a separate work-stream (see Strategic Objective: Promote Circularity Action 1.2). Note: LDA targets for retail and other nonresidential uses are aligned with EU Taxonomy requirements. Any residential refurbishments are subject to HPI.

#### Actions and Targets:



## Strategic Objective: Reduce Carbon - Embodied

#### Definition

Embodied carbon (EC) is a term used to describe the total greenhouse gas (GHG) emissions associated with producing buildings and infrastructure. It includes the energy used to extract, process, transport & assemble the materials used to construct buildings or infrastructure.

By quantifying the embodied and operational carbon impacts of our buildings and factoring in maintenance, repair and replacement of building fabric over their lifetime, we can determine the whole life carbon (WLC) impact.

#### **Metrics**

- Embodied carbon kgCO2e/m<sup>2</sup>
- Whole life carbon (WLC) kgCO2e/ m²/yr

#### **UN SDG Alignment**



#### Background

More than a third of GHG emissions from Ireland's construction and built environment sectors are attributable to embodied carbon. Carbon budgets under Ireland's Climate Action Plan are focused on operational carbon only. Embodied carbon associated with the Government's retrofitting and newbuild targets is shown to be significant, and urgent reductions are needed for successful decarbonisation of the built environment <sup>1,2</sup>.

Embodied carbon is not currently addressed in building regulations in Ireland. This is set to change from 2027 onwards, the year when the EPBD requires disclosure of the whole life carbon (WLC) impact of a building on its Building Energy Rating (BER) certificate <sup>3</sup>. EU Taxonomy, CSRD and HPI all require disclosure of embodied carbon assessed in accordance with EN 15978.

The reduction of embodied carbon should be considered alongside the application of circular economy and circular design principles in order to maximise the potential multiple benefits these approaches offer <sup>4</sup>. This includes looking beyond embodied carbon alone to the contribution of material specification towards nature regeneration and ecology more broadly <sup>5</sup>.

#### LDA Approach

setting.

The LDA recognises that building new homes and communities will result in increased demand for building materials and their associated embodied carbon emissions. The Agency will endeavour to minimise the intensity of the impact of our activities through a design-led approach guided by carbon accounting and target

In 2024 the Agency will prioritise the development of a Climate Action Plan in order to determine LDA specific carbon reduction targets for 2030 & 2050. To support an Agency-wide approach to decarbonising our activities the LDA commit to:

- Developing in-house capability for carbon accounting. This will include a standardised approach to quantifying the whole life carbon (WLC) impact of LDA developments through the development stages and aligned with the development cost analysis process and life cycle costing (LCC).
- Exploring the potential to reduce material demand through the adaptive re-use of existing buildings and efficient design of new buildings (see Strategic Objective: Promote Circularity).

Seeking to avoid unnecessary
costs and carbon associated
with "locked-in" infrastructure
e.g. podium car storage and new
basements.

- Developing guidance on optimised material use, waste reduction and modern methods of construction (MMC).
- Minimising upfront carbon through the specification of lower carbon and bio-based materials & building systems.

- 1. Develop an LDA Climate Action Roadmap
- 2. Develop capability for carbon accounting
- 3. Pursue a design-led approach to embodied carbon reduction

			Actions	Current Performance Measure	Current Metric	Current Target for LDA Projects						
I	Develop an LDA Climate Action Roadmap	1.1	Develop LDA Climate Action Roadmap (embodied & operational carbon) based on an energy demand reduction approach. Roadmap to include baseline carbon, cost, investment & risk modelling, and scenario testing to identify optimised carbon targets. Analysis to include assessment of associated design performance standards that can support the strategic objectives of the LDA in relation to affordability, investment and sustainability.	Whole Life Carbon (WLC) Embodied Carbon (EC)	kg/CO2e/m <sup>2</sup>	<ul> <li>HPI EN 7.1 - Level 3 &amp; EU Taxonomy Full WLC Assessment via LCA software (report only)</li> <li>Assess all projects against HPI EN 7.1 - EC Benchmarks: Apartments Level 2 - 625 kg/CO2e/m<sup>2</sup> Houses Level 2 - 450 kg/CO2e/m<sup>22</sup></li> </ul>						
2	Develop capability for carbon accounting	2.1	Develop integrated approach to carbon accounting and development cost procedures to include an integrated Whole Life Carbon (WLC) and Life Cycle Costing (LCC) analysis in line with relevant standards.	See above	See above	<ul> <li>See above for current WLC and EC benchmarks</li> <li>Life Cycle Costing (LCC) carried out on energy strategy assessments</li> </ul>						
3	Pursue a design-led approach to embodied carbon reduction	3.1	Maximise use of Modern Methods of Construction (MMC) and minimise waste production via LDA Sustainable Design Guidelines 4: Sustainable Buildings, LDA Typology booklet and development of appropriate metrics.	MMC Adoption	Extent of MMC on project	<ul> <li>Prefer MMC solutions for M&amp;E installations and standardised components e.g. bathroom pods. Currently no MMC targets or metrics</li> <li>Alignment with LDA Typology booklet</li> </ul>						
		3.2	3.2 Maximise pre-fabrication / use of MMC via LDA Sustainable Design Guidelines 4: Sustainable Buildings / Typology booklet.	Low Carbon Specification	kg/CO2e/m <sup>2</sup> and metrics	<ul> <li>Current focus is on concrete &amp; steel, the most significant embodied carbon materials, including alignment with the Cement and Construction Decarbonisation Working Group recommendations for Public Bodies (Guidance note to be issued)</li> </ul>						
				Procurement of Timber	% timber from certified sources	• HPI EN 10.0 - Level 1						
										Environmental Product Declarations (EPDs)	No. or % of materials with EPD	• HPI EN 11.0 - Level 2
		3.3	Identify pathfinder project to explore use of bio-based, low carbon materials at scale (e.g. mass timber).			• Examine scope, benefits, challenges, impacts & delivery mechanisms						
						10						

## Strategic Objective: Reduce Carbon - Operational

#### Definition

Operational carbon (OC) is the carbon dioxide and other GHG emissions associated with a building's energy consumption in-use. It includes carbon associated with both regulated energy (mainly the energy used for space and water heating) and unregulated energy (cooking, TVs, appliances etc.)

#### Metrics

Operational carbon - kgCO2/m²/yr.
Operational energy - kWh/m²/yr.

#### **UN SDG Alignment**



#### Background

In Ireland, operational energy from residential buildings is the largest contributor to built environment sector emissions. The construction and operation of our buildings accounts for 37% of all national emissions, on a par with agriculture. 23% of these are attributable to operational carbon and 14% to embodied carbon <sup>1</sup>.

Technical Guidance Document Part L, and the associated Dwelling Energy Assessment Procedure (DEAP), focuses on primary energy demand and regulated loads only. It does not take unregulated loads into account. These unregulated loads can account for up to 50% of total energy use <sup>2</sup>. To address this, it is anticipated that building regulations will transition to a performance-based approach, with the introduction of MEPS (Minimum Energy Performance Standards) from 2030 onwards <sup>3</sup>. In March 2024, a revision to the EU Energy Performance of Buildings Directive was approved which sets the Zero Energy Buildings (ZEB) standard as the new energy standard for buildings from 2027, replacing Nearly Zero Energy Buildings (NZEB) <sup>3</sup>,<sup>4</sup>. A zero-emission building is defined as building with very high energy performance, requiring zero or a very low amount of energy, producing zero on-site carbon emissions from fossil fuels and producing zero or a very low amount of operational GHG emissions <sup>3</sup>.

#### LDA Approach

The LDA's operational energy and associated carbon demand will grow as we develop more homes. The LDA will mitigate the intensity of impacts by applying an energy demand reduction strategy. This will focus on a building fabric first approach guided by carbon accounting and target setting.

In 2024 the Agency will prioritise the development of a Climate Action Plan in order to determine carbon reduction targets for 2030 & 2050. The LDA commit to:

- Undertaking a building performance standards review to inform the adoption of operational energy and carbon performance targets.
- Ensuring that the LDA adopts the ZEB standard in advance of 2027 deadline.
- Focusing on early stage optimisation to minimise energy demand via design of building form, fabric and site layouts.
- Ensuring potential for future connection to low-carbon municipal district heating or site level communal heating systems.

- Minimising the performance gap by monitoring and reporting on:
- Operational energy and carbon to educate and support tenants in optimising their energy use,
- Operational energy and carbon at a site and portfolio level to track our progress and improve our processes,
- Corporate carbon impacts through the adoption of the CSS framework and developing a gap to target model.

- 1. Develop an LDA Climate Action Roadmap
- 2. Design for energy efficiency and operational carbon reduction
- Minimise the performance gap to support improved tenant comfort and affordability

			Actions	Current Performance Measure	Current Metric	Current Target for LDA Projects
1	Develop an LDA Climate Action Roadmap	1.1	Develop LDA Climate Action Roadmap (embodied & operational carbon) based on an energy demand reduction approach. The roadmap is to include baseline carbon, cost,	Primary Energy (regulated)	kWh/m²/yr	<ul> <li>HPI EN 6.1 - Level 1 satisfies the requirements of EU Taxonomy SCCCM1(1) - PED at least 10% better than NZEB</li> </ul>
			investment & risk modelling, and scenario testing to identify optimised carbon targets. Analysis to include assessment of associated design performance standards that can support the strategic objectives of the LDA in relation to affordability, investment and sustainability.	Carbon In-Use	kg/CO2e/ m <sup>2</sup>	<ul> <li>HPI EN 6.2 - Level 1</li> <li>No combustion of fossil fuels on site</li> </ul>
2	Design for energy efficiency and operational carbon reduction	2.1	Develop and publish LDA Sustainable Design Guidelines 4: Sustainable Buildings	Energy Demand Reduction		<ul> <li>Promote an energy demand reduction strategy for all projects through a fabric first approach with reference to LDA Apartment Typology booklet</li> </ul>
		2.2	Implement a standardised approach to assessment of site heating strategies, and valuation of emissions in investment decisions, in line with CSS Framework commitments.	Low Carbon Energy Infrastructure		<ul> <li>Site heating strategy analysis to include centralised and decentralised options analysis (Guidance note to be issued)</li> <li>No combustion of fossil fuels on site</li> </ul>
3	Minimise the performance gap for improved tenant comfort and affordability	3.1	In partnership with Construct Innovate and Cairn Homes, undertake monitoring of building fabric and systems performance at Archers Wood as part of the Heat Check Research Programme.	Operational Energy	kWh/m²/yr	<ul> <li>Landlord areas will be subject to energy monitoring &amp; gap to target analysis under SEAI M&amp;R system.</li> <li>Total energy demand for tenant areas will be collected under scope 3 reporting requirements</li> </ul>
		3.2	Develop metering strategy to support data collection, reporting and analytics to inform continuous improvement in LDA processes and standards and support tenant education and well being. Develop & Publish LDA Sustainable Design Guidelines 5: Building Management.	Performance Gap & Metering	% buildings with metering strategy % buildings with PoE undertaken	<ul> <li>Ensure that all necessary infrastructure (e.g. an EMS and associated meters) is included in LDA developments to support the collection and sharing of data for key building performance indicators such as energy and water use</li> <li>HPI QA 7.1 - min Level 1 with Level 2 to be determined on project by project basis</li> </ul>

## Strategic Objective: Promote Water Stewardship

#### Definition

Potable water is water which has been treated to make it safe for human consumption.

Grey water is previously used water (e.g. sinks and showers). It is not harmful and can be re-used for other purposes, such as irrigation of landscaping or flushing toilets, without treatment.

Surface water is rainfall which occurs on surfaces. It must be managed to ensure that it does not adversely affect people or buildings by causing flooding or water ingress to building fabric.

SUDS (Sustainable Urban Drainage Systems) is a term used to describe a collection of drainage management systems which aim to align with manmade and natural water processes to reduce surface water run-off. They can also contribute to biodiversity gain.

#### Metrics

•Potable Water - Litres per Person per Day I/p/day

• Surface water run-off - Peak runoff rate Run-off volume / Allowable discharge rates / % addressed using nature-based solutions

#### **UN SDG Alignment**



#### Background

Water is a finite resource. Water cycles control the quality of habitats and the stability of ecosystems necessary for life <sup>1</sup>. However, development alters the hydrological cycle by introducing surfaces that reduce infiltration and increase water run-off, escalating the risk of flooding and pollution<sup>2</sup>. It is predicted that by 2080, water flow in 37 catchments in Ireland will decrease by 21%<sup>3</sup>, increasing the concentration of pollutants and making abstraction difficult<sup>4</sup>.

Freshwater resources are put under further stress by unsustainable consumption and water leakage patterns. In Ireland, water conservation is set to form a cornerstone of policy <sup>5</sup>, with conservation-related recommendations from An Fórum Uisce <sup>6</sup> including changes to Building Regulations. In the UK, farreaching changes regarding water management are being introduced, with 10 key actions including new efficiency standards for homes enshrined in Building Regulations <sup>7</sup>.

#### LDA Approach

The LDA will implement water stewardship across projects and will develop Agency-level guidance to ensure a consistent approach to water management. The LDA commit to:

- Ensuring a coordinated approach to the design of landscape and civil works, defaulting to a Nature-Based Solutions (NBS) / SUDS approaches as the primary means of managing surface water.
- Prioritising efficiency measures to reduce potable water demand by setting consumption targets and requiring appropriate specification of flow rates and appliances aligned with EU taxonomy.
- Supporting tenant engagement and education on water conservation based on monitoring and reporting of potable water usage.

Ensuring that appropriate metering and leak detection strategies are in place to support tenants which facilitate cloud-based reporting in support of CSRD aligned reporting obligations.

- Exploring the potential for water resource diversification including rainwater harvesting and greywater recycling, and potential integration with attenuation systems.
- Requiring that contractors plan for, implement, monitor and report on the impacts of their actions during the construction phase, in line with the requirements of EU taxonomy.

- 1. Develop LDA approach to Water Stewardship
- 2. Ensure LDA sites are resilient to surface water and tidal flooding
- Reduce potable water usage and optimise supply
   Drayont water pollution and
- 4. Prevent water pollution and maintain water quality

	Aims		Actions	Current Performance Measure	Current Metric	Current Target for LDA Projects
1	Develop LDA approach to Water Stewardship	1.1	Establish standardised approach to Water Stewardship via publication of LDA Sustainable Design Guidelines 4: Sustainable Buildings.	Water Stewardship		<b>Note:</b> The LDA will undertake Uisce Eireann's Water Stewardship training course. (*Guidance note to be issued)
2 Ensure LDA sites are resilient to surface water and tidal flooding		2.1	Establish standardised approach to the maximisation of NBS and minimisation of run-off for on-site water management via publication of LDA Sustainable Design Guidelines 3: Planning for Amenity, Biodiversity and Nature-Based Solutions.	Surface Water Run-Off	Peak run- off rate / Run-off volume	<ul> <li>HPI EN 3.0 - Level 3 - 15% reduction in runoff from baseline scenario using at least 2 of 13 SUDS methods in line with HPI guidance</li> <li>Compliance with EU Taxonomy DNSH requirements re: climate adaptation and use of nature based solutions</li> </ul>
			See Actions listed under Strategic Objective: Enhance Biodiversity & Climate Resilience Aim 3			
3	Reduce potable water usage and optimise supply	3.1	Reduce internal water usage by design via performance & product specification.	Internal Water Use	litres per person per day l/p/day	<ul> <li>HPI EN 4.0 - Level 2</li> <li>95I per person per day</li> <li>&amp; specify flow rates and capacities for water</li> <li>appliances as per EU</li> <li>Taxonomy requirements</li> </ul>
		3.2	Reduce water consumption during the construction stage by following Water Management Plan. Guidelines to be set out in LDA Sustainable Design Guidelines 4: Sustainable Buildings.	Water use on-site	litres per person per day I/p/day	Contractors required to put water management plan in place
		3.3	Develop strategy for monitoring water use and assisting. tenants optimise use via publication of LDA Sustainable Design Guidelines 5: Building Management.	Monitoring Internal Water Use	l/p/day	• Flow metres to be installed in all developments for each home in addition to bulk water metres
		3.4	Develop LDA approach to source diversification (grey water use, rainwater storage etc) via publication of LDA Sustainable Design Guidelines 4: Sustainable Buildings.	Source Diversification	% recycled water being used	• No current target
4	Prevent water pollution and maintain water quality	4.1	Ensure no pollution to water courses or sources arises during construction, and that water quality of existing water bodies on site is maintained to protect amenity and biodiversity.	Protection of water resources during construction	Risks mitigated via design. Report measures and impacts	• HPI QA 4.1 - (Level N/A) & EU Taxonomy Environmental site risks assessed & managed
		4.2	Ensure that potable water quality is maintained to a sufficiently high standard.	Potable water quality		<ul> <li>Review possible adoption of ISO 24512 Drinking Water Management as part of LDA approach to Water Stewardship within LDA sites</li> </ul>

## Strategic Objective: Optimise Sustainable Land-Use & Mobility

#### Definition

Sustainable land-use, in the context of the LDA's task to deliver compact growth, is the balance of accommodation, services, natural habitat and amenity that we must provide to support healthy communities.

Sustainable mobility means connecting people and places in a sustainable way by supporting safe, accessible and affordable journeys. It means shifting away from the private car to walking, cycling and public transport.

#### Metrics

- % of brownfield vs greenfield sites (definition/ methodology for categorization TBA)
- PTAL (Public Transport Accessibility Level), AToS (Access to Services)

#### **UN SDG Alignment**



#### Background

Land-use involves the modification of the natural environment for human uses and has implications for human life, biodiversity and climate action <sup>1,2</sup>. Artificial surfaces have increased in Ireland by 65% since 1990 <sup>3</sup>, putting pressure on water, air and nature. The Land Use Review – Phase 1<sup>1</sup> sets out the importance of the 'no net land take' by 2050 objective in European policy. This aligns with the NPF compact growth objective <sup>4</sup>, where 'soil sealing' is eliminated, and brownfield sites and land recycling is prioritised.

Between 1990 and 2022, transport showed the greatest overall increase of GHG of all sectors in Ireland at 126%, and trends indicate that emissions have not yet been decoupled from economic activity <sup>5</sup>. The National Sustainable Mobility Policy sets out a pathway away from private car use towards more sustainable modes of travel <sup>6</sup>. This shift will result in emissions reductions whilst also reaping multiple positive impacts for society such as improved health, reduced road deaths, improved streets and reduced financial burdens on governments <sup>7,8</sup>.

#### LDA Approach

- The LDA will undertake a structured and consistent approach to landuse planning to support compact, sustainable growth and promote modal shift. The LDA commit to:
- Prioritising development of brownfield sites (including the refurbishment of existing buildings) close to existing amenities and services, over greenfield sites, and in line with EU Taxonomy.
- Developing sustainable mobility strategies via analysis of access to community, cultural and employment assets for existing and new communities, which seek to optimise connectivity for pedestrians and cyclists and improve access to low carbon mobility options.
- Developing LDA Land-Use and Sustainable Mobility Design Guidelines to support the approach described in the previous point.

- Prioritising a car-free approach on all developments. Where this is not possible, a low-car approach is to be taken. Permanent infrastructure associated with car storage is to be avoided. Any short-term residual need for reduced private car access and storage will be planned for via mobility management plans.
- Identify tools, datasets and mapping approaches to support evidence-based decision making.
- Ensuring that an integrated design approach is taken to sustainable mobility including landscape design, civil and structural elements, ecology, and urban design.
- Establishing procedures to support consistent screening of land acquisition and transfer opportunities to ensure alignment with compact growth and sustainable development priorities, as defined in the LDA Act and EU Taxonomy.

- 1. Support compact growth
- 2. Champion modal shift and sustainable mobility

	Aims		Actions	Current Performance Measure	Current Metric	Current Target for LDA Projects
1	Support compact growth	1.1	Develop standardised Agency procedures for assessing all potential sites for alignment with LDA Act.			<ul> <li>Application of the draft pipeline development procedure templates for assessing strategic alignment of sites with LDA objectives</li> </ul>
2	Champion modal shift and sustainable mobility	2.1	Publish LDA Sustainable Design Guidelines 1: Land-Use and Sustainable Mobility to guide design teams production of Sustainable Mobility Strategies for each site.	Land-Use, Modal & Storage Split Targets, Distance	Kilometres / metres, Number of spaces / amenities	<ul> <li>HPI sustainable location indicators - HPI SL1.0 - SL1.5</li> <li>HPI Environmental Indicators EN1.0 &amp; EN2.0 and EU Taxonomy alignment</li> <li>Complete a land use and sustainable mobility strategy at the commencement of stage 1a of each project</li> <li>Adopt a no-car / low-car approach to LDA Developments. Prioritise sustainable modes of transport and adopt an evidence based approach to quantifying residual car storage needs where they are shown to exist e.g. the provision of designated elderly / disabled parking, set down spaces, deliveries, limited private cars etc</li> <li>Permanent infrastructure associated with car-storage is to be avoided to support modal shift, and reduce associated costs and embodied carbon</li> </ul>

## Strategic Objective: Enhance Biodiversity & Climate Resilience

#### Definition

Biodiversity is the variety of plant and animal life which underpins ecosystems, and which provide us with clean air, water, and fertile soils whilst protecting against flooding and heat.

Climate resilience is the ability to bounce back following a shock. It also addresses the slow-burn processes of climate change and the need to adapt to and reduce risk.

Blue & Green Infrastructure (BGI) is an integrated approach to adaptation that uses Nature-Based Solutions (NBS) to address flood risk, heat stress, biodiversity enhancement and air quality as well as providing amenity and enhanced experience of a place.

#### Metrics

- Biodiversity Net Gain (BNG), Natural England Metric
- Climate Risk and Vulnerability
   Assessment

#### **UN SDG Alignment**



#### Background

The exploitation of natural ecosystems to date is risking food security, people's health and human capital, as well as people's ability to mitigate against climate hazards<sup>1</sup>. Approximately 75% of the Earth's surface is in a state of severe degradation <sup>2</sup>. Ireland's 4th National Biodiversity Action Plan (NBAP) states that Ireland's biodiversity is in crisis, that action is imperative, and that biodiversity should be embedded in climate action <sup>3</sup>. The EU restoration law sets out that there will be no net loss of urban green space by 2030, and a net increase thereafter <sup>4</sup>. This is mirrored in the NBAP <sup>3</sup> which sets out planning and development targets, and a vision for biodiversity in 2050 that is valued, conserved, restored and sustainably used. EU Taxonomy, CSRD and HPI all require biodiversity-related disclosures.

National policy recognises that Ireland's climate is changing in line with global trends, that further change is expected, and that a planned approach to climate adaptation is necessary <sup>5</sup>. In the housing sector, much progress is needed on adaptation <sup>6</sup>, whilst the multiple co-benefits offered by a green adaptation and neighbourhood scale nature-based approaches are well documented <sup>7</sup>,<sup>8</sup>.

#### LDA Approach

The LDA has a significant opportunity to have a regenerative impact on our sites and to contribute to BNG supported through the use of naturebased solutions (NBS) which in turn support climate resilience.

While many LDA development opportunities are classed as brownfield and are within existing urban footprints, it is recognised that not all sites will present the same opportunities for biodiversity enhancement. We will clearly define the specific goals for a project that blue & green infrastructure will contribute to achieving. This includes prioritising the realisation of measurable BNG across a significant proportion of our strategic & development sites.

The LDA has a significant opportunity to have a regenerative impact on our sites and to contribute to BNG supported through the use of nature-based solutions which in turn support climate resilience. The LDA commit to:

- Undertaking BNG assessments (Natural England Metric) on all projects and striving to achieve highest possible qualitative and measurable outcomes within project constraints. This includes adopting appropriate methodologies to establish baseline conditions and measure the net impact of our proposed interventions, ensuring that BNG targets are not adversely impacted through design iterations.
- Reporting on site and portfoliowide metrics and using these to inform agency level biodiversity target setting.
- Prioritising a nature-based approach to ensuring that buildings, public realm and residents can withstand emerging and future changes to our climate, as well as extreme weather events. This includes over-heating, urban heat island effect, wind, storms, precipitation, flooding and sea-level rise.
- Undertaking research into relationship between social value, landscape and community consultation as part of LDA Community Benefit Strategy development.

- 1. Measurably increase biodiversity
- 2. Prioritise the use of Nature-Based Solutions to support climate resilient, biodiversityrich communities
- 3. Develop LDA approach to climate adaptation

Aims		Aims Actions		Current Performance Measure	Current Metric	Current Target for LDA Projects
1	Measurably increase biodiversity	1.1	Develop methodology for land-use assessments of pipeline sites to include existing and planned use / ecological / biodiversity characteristics and support target setting.			<ul> <li>Exceed NPF target requirement for 40% of new development to be on brownfield sites within existing urban boundaries</li> </ul>
		1.2	Establish best practice approach to BNG assessments via publication of LDA Sustainable Design Guidelines 3: Planning for amenity, biodiversity and nature-based solutions and LDA Sustainable Design Guidelines 2: Site Planning and Urban Design.	BNG % increase in Biodiversity Units from baseline	Natural England Metric 4.0	<ul> <li>HPI EN 5.0 Option A - Level 3 BNG assessment using Natural England Metric 4.0</li> <li>Qualified Ecologist to lead on use of Natural England Metric to establish baseline conditions and set project level targets for agreement with LDA. Ecologist to ensure that qualitative measures and impacts are prioritised and reported alongside quantitative reporting of Natural England metrics</li> </ul>
2	Prioritise the use of Nature Based Solutions to support climate resilient, biodiversity- rich communities	2.1	Establish best practice approach to climate adaptation and resilience in external spaces via publication of LDA Sustainable Design Guidelines 3: Planning for amenity, biodiversity and nature-based solutions and LDA Sustainable Design Guidelines 2: Site Planning and Urban Design.	Flood Risk	Probability of flood events	• HPI EC 6.1 - Level 2 / 3 site dependant contributes to satisfying EU Taxonomy requirements
				Surface Water Run-Off	Peak run-off rate / Run-off volume	<ul> <li>HPI EN 3.0 - Level 3 &amp; EU Taxonomy 15% reduction in runoff from baseline scenario using at least 2 of 13 SUDS methods in line with HPI guidance</li> <li>Compliance with EU Taxonomy Do No Significant Harm (DNSH) requirements re climate adaptation and use of nature based solutions</li> <li>Targets to form part of site-wide blue and green infrastructure strategy</li> </ul>
3	Develop LDA approach to climate adaptation	<b>3.1</b> Establish best practice approach to climate adaptation in buildings via LDA Sustainable Design Guidelines 4: Sustainable Buildings.	Climate-related adaptive capacity	% hours exceeding 26°C	<ul> <li>HPI EC 6.2 - Level 1 Assessment in accordance with Appendix A of EU Taxonomy Annex satisfies the requirements of DNSH 2 - climate change adaptation to take place early in the design process (post stage 1a) Mitigation measures to be integrated into design process</li> <li>Guidance note to be issued</li> </ul>	
				Overheating	% hours exceeding 26°C	HPI HW 5.0 - Level 2 contributes to satisfying EU Taxonomy requirements dynamic simulation required

## **Strategic Objective: Promote Circularity**

#### Definition

Circularity in the built environment is the process of keeping materials that have already been extracted, or harvested to their highest value, and re-using these materials rather than disposing of them.

#### Metrics

- % materials components & systems reused (or displacement of new material demand)
- % materials, components & systems designed to be reusable at end-oflife (weighted relative to impacts)
- % of Construction and Demolition (C&D) waste recovered for re-purposing or re-use.

#### **UN SDG Alignment**



#### Background

The built environment demands almost half of the worlds extracted materials <sup>1</sup>. We take natural resources, use them to create building materials, then dispose of those materials as waste at the end of their life with little or no consideration of the environmental or social impacts of extraction and processing construction materials, or of their future life. This causes significant water stress, biodiversity losses and GHG emissions, and it is becoming increasingly difficult and damaging to extract ores from raw materials <sup>2</sup>.

By contrast, a circular economy involves moving away from our current linear economy (make-use-dispose) towards one where our products, and the materials they contain, are valued differently; creating a more robust economy in the process <sup>3</sup>. In the built environment, this means adopting a range of approaches such as designing out waste, designing for adaptability, designing for disassembly and re-use, responsible material specification and treating waste as a resource <sup>2</sup>. These measures extend the useful life of buildings and components, as well

as regenerating nature, and could

reduce CO2 emissions by

38% in 2050 <sup>4</sup>.

Circular design is not only concerned with reducing waste across all the life-cycle stages of a building. It is about avoiding building depreciation (and associated loss of revenue yields), demolition and downcycling. It is about creating a built environment where residual value is locked into buildings and materials, where value chains and local economies are strengthened and where buildings are better for the environment and for people <sup>2</sup>.

#### LDA Approach

The LDA aims to promote circularity through a design-led approach focused on resource efficiency, standardisation, optimisation and the re-use of existing material assets where practical. The LDA commit to:

- Promoting the retention of materials already in the value chain through the adaptive reuse of existing building fabric to displace the material demands of new buildings where practical.
- Promoting and supporting the use of MMC solutions, which can reduce material waste through the efficiencies achieved in assembling building components in a controlled environment (see Strategic Objective: Reduce Carbon -Embodied).
- Ensuring that proposed design

and construction solutions have considered the potential for adaptive re-use or disassembly in line with HPI and EU Taxonomy requirements.

- Committing to achieving a minimum 70%recovery rate for C&D waste generated through our development operations, in line with EU Waste Directive targets and EU Taxonomy.
- Promoting on-site waste management strategies for refuse and recycling.
- Ensuring robust measurement and reporting mechanisms are in place to quantify the scale of our impacts and inform the strategies necessary to reduce those impacts over the lifecycle of our developments and at an Agency level.

- 1. Maximise resource efficiency and circularity
- 2. Design for changes in future use
- 3. Treat waste as a resource

	Aims		Actions	Current Performance Measure	Current Metric	Current Target for LDA Projects
1	Maximise resource efficiency and circularity	1.1	Examine potential for retention and re-use of existing built assets including justification for proposed demolition where applicable.	Adaptive Re-Use	% of existing structures (m <sup>2</sup> ) to be retained as part of proposal	• Undertake adaptive re-use feasibility study for all sites with existing buildings (include where appropriate assessment under HPI EN 8.1 / 8.3 and EU Taxonomy (*Guidance note to be issued)
		1.2	Undertake research to determine wider impacts and benefits of adaptive re-use for affordable housing including carbon, financial supports, New European Bauhaus alignment, cultural and heritage value and the potential for accelerated delivery.			<ul> <li>Identify Pilot Project</li> </ul>
			See Actions listed under Strategic Objective: Reduce Carbon - Embodied Aim 3 Pursue a design-led approach to carbon reduction.			
2	Design for changes in future use	2.1	Publish circularity guidelines via LDA Sustainable Design Guidelines 4: Sustainable Buildings including adaptability, disassembly and re-use.	Circular Design	complete HPI design for disassembly template	<ul> <li>HPI EN 8.2 and EU Taxonomy</li> <li>Undertake adaptability, disassembly and re-use studies in line with EU Taxonomy and HPI EC 3.2 (Guidance note to be issued)</li> </ul>
3	Treat waste as a resource	3.1	Ensure 70% of C&D waste is recovered for re-purposing or recycling in line with the requirements of EU waste directive regulations.	Construction Waste	% (by weight)	• HPI EN 8.3 - Level 2 and EU Taxonomy
		3.2	Publish guidelines for waste avoidance and reduction, including construction stage waste as well as on-site waste production post-construction via LDA Sustainable Design Guidelines 4.	Construction Waste & Circular Design	% materials components & systems reused / re-useable, % waste recovered	<ul> <li>HPI EN 8.3 - Level 2 and EU Taxonomy</li> <li>HPI EN 8.2 and EU Taxonomy</li> </ul>

## Strategic Objective: Support the Creation of Social Value

#### Definition

Social value is a term used to describe the economic, environmental and social benefits that are experienced by people.

Measuring social value is vital to ensuring that outcomes are clearly stated and committed to across the development lifecycle.

#### Metrics

Metrics for quantifying social value are wide ranging. The LDA will review, analyse, adopt and where necessary adapt best practice methodologies and their associated metrics which are most relevant to its activities. It is expected that these metrics will evolve over time.

#### **UN SDG Alignment**



#### Background

There is growing evidence that people's health and well-being are influenced more by their physical and social environments than by their genetics and medical conditions<sup>1</sup>. Population growth and increasing urbanisation, alongside the impacts of climate change, means an increasing proportion of the global population is at health risk from the built environment<sup>2</sup>. The Government's Well-Being Framework for Ireland <sup>3</sup> seeks to re-orientate policy making in the direction of well-being. It states that traditional macroeconomic indicators do not provide a comprehensive picture of overall societal progress, and that a holistic multi-dimensional approach is needed focused on person, place and society.

related considerations encompass a broad range of issues including health, well-being, comfort, connection to nature, user experience, occupant behaviour, communities, interconnectivity and inclusion<sup>4</sup>. Social value covers all of these issues and more, encompassing overall environmental, economic and social wellbeing. It is focused on people, dependent on context and inherently local to a particular area <sup>5</sup>. Significant work has been done in the UK to progress tools and methodologies in relation to social value in the built environment. Some approaches focus on process and

In the context of housing, human-

procurement <sup>5</sup>, whilst others focus on assessing completed projects <sup>6</sup>.

#### LDA Approach

The LDA recognises the history of housing in Ireland and elsewhere which shows that our success will be judged, in the long-term, not just by numbers of homes delivered but by the quality of the homes, streets and public spaces which we create, and the extent to which these places can support a sustainable and high quality of life for the people and communities which they serve. One of the LDA's core purposes is "to achieve the best possible social and economic return.....from the use of relevant public land...". To achieve this, the LDA commit to;

- Developing a Social Value Framework: mapping the potential for social value creation along the development lifecycle and aligning these nodes with appropriate procedures, methodologies and reporting metrics.
- Prioritising readily measurable core social value impacts initially and expanding these over time.
- Putting people and communities at the centre of built environment

projects via development and implementation of meaningful, project-specific consultation / engagement strategies.

- Developing robust procedures, methodologies and measurement mechanisms which are cognisant of additionality and optimism bias

   we will only take credit for those outcomes which we can attribute to our actions.
- Assigning value to and reporting on the creation of social value in LDA developments.
- Promoting the integration of social value considerations in design processes.

- 1. Develop a Social Value Framework
- 2. Promote community integration and betterment
- 3. Support tenant well-being
- 4. Champion universal access and life-long homes

		Aims	Actions		Current Performance Measure	Current Metric	Current Target for LDA Projects	
	1	Develop a Social Value Framework	1.1	Develop a Social Value Framework at Agency level to deliver quality and structure in defining, setting targets, measuring and reporting on social value.			<ul> <li>Progress scoping and brief to develop an LDA Social Value Framework</li> </ul>	
	2	Promote community integration and betterment	2.1	Develop metrics and implementation approaches to support policies, procedures & strategies for consistent and meaningful approach to public consultation and stakeholder engagement.			<ul> <li>Implement the LDA Community and Stakeholder</li> <li>Engagement Strategy on all projects in line with the associated procedures and toolkit</li> </ul>	
			2.2	Develop a community benefit strategy for each project which considers wider impacts and opportunities associated with LDA acquisitions & developments in their catchment area, and across our design, development and management functions.			Undertake a Community Infrastructure Audit for all projects and integrate into the design stages and planning application	
			2.3	Establish best practice principles for community-centred public realm design via publication of LDA Sustainable Design Guidelines 2: Site Planning and Urban Design and LDA Sustainable Design Guidelines 3: Planning for amenity, biodiversity and nature-based solutions.			<ul> <li>Guidance note to be issued as interim measure</li> </ul>	
	3	Support tenant well-being	3.1	Develop a tenant-focused approach as part of the undertaking of Post Occupancy Evaluation where residents comfort and well-being is measured alongside energy, water and indoor air quality monitoring. Guidelines to be set out in LDA Sustainable Design Guidelines 5: Building Management.			<ul> <li>12 month POE requirement under HPI QA7.1</li> <li>Tenant survey requirement under HPI QA7.2</li> </ul>	
4 Ch un ac life ho		Champion universal access and life-long homes	4.1	Ensure rents are maintained within affordability / cost rental threshold.			Compliance with statutory requirements is monitored through, development cost analysis, cost rental analysis and investment modelling throughout the design, development and management process	
			4.2	Develop a strategy to support universal access within LDA developments and provide flexibility for tenants of all abilities and at all stages of life to remain within their communities.			<ul> <li>Universal design principles in LDA Typology booklet</li> <li>Typology &amp; tenure mix in LDA Typology booklet</li> <li>Promote a tenure blind approach to buildings and public realm</li> </ul>	

## **6 CSRD Alignment and Reporting**

As noted earlier in the document, one of the primary actions in Workflow 3 of the LDA Sustainable Development Framework will be to develop an Agency-wide reporting framework aligned with the Corporate Sustainability reporting Directive (CSRD). It is envisaged that this work will be coordinated through the Governance Framework Working Group (a draft governance structure diagram is included in Section 8, Next Steps on pg.35).

CSRD is an EU non-financial reporting directive which arises from the EU Green Deal objectives. Its core purpose is to increase economic flows to more sustainable economic activities. In addition to this it also:

- legally obliges companies to report on Environmental, Social and Governance (ESG) matters
- creates ESG transparency and facilitates comparability
- collates verifiable data to support corporate decision making

The European Sustainability & Reporting Standards (ESRS), developed by European Financial Reporting Advisory Group (EFRAG), set out the themes and indicators for ESG reporting. Companies must determine which of the indicators are material to them and:

- 1 report on the associated Key Performance Indicators (KPIs)
- 2- disclose the impacts, risks and opportunities associated with each KPI

The themes under ESRS are:

Environmental	Social	Governance
<ul> <li>Climate Change (Adaptation and Mitigation)</li> <li>Pollution</li> <li>Water Conservation</li> <li>Biodiversity and Ecosystems</li> <li>Resource Use and Circular Economy</li> </ul>	<ul> <li>Own Workforce</li> <li>Workers in the Value Chain</li> <li>Affected Communities</li> <li>End Users and Stakeholders</li> </ul>	• Business Conduct

While CSRD is focused on disclosures, another EU nonfinancial instrument, EU Taxonomy, establishes minimum technical screening criteria for economic activities. Demonstrating compliance with EU Taxonomy criteria allows that activity to be defined as "sustainable" for the purpose of investment.

The LDA has developed its strategic objectives to align with what we have assessed to be material to our own activities and the themes of ESRS. We have also focused on taxonomy alignment of key building performance indicators to ensure that single metrics for key indicators can satisfy the requirements of:

- HPI certification
- EU Taxonomy compliance
- Relevant ESRS indicators.

In this sense we have taken our first steps towards CSRD alignment. However there is a significant amount of work to be done. The current LDA business plan and growth projections indicate that the Agency will exceed the CSRD thresholds in mid 2025. Based on these assumptions,



CSRD requirements will be effective from 1st of January 2025 with first reporting in 2026.

CSRD reporting will be subject to limited assurance in its initial stages with a draft standard due to be published by Q4 2026. It is expected that full audits will apply from 2027 - 2028 and therefore it is essential that the LDA adopts a robust approach to the assessment of what is material to its activities and the associated impacts, risks and opportunities.

A draft implementation timeline to meet these readiness and reporting dates below.

e		audit-ready			
	deep dive into all categories	full disclosure			
uirements upport T ns	develop KPI's / IRO's - Develop systems for intergration with LDA IMS	full implementation			
commence tracking KPI's (using proprietary tools)					
easurement	development / refinement				
anuary 2025	February - December 2025	January 2026			
	CATEGORY WIDE				
	DEEP ANALYSIS				

## **7 Priority Actions aligned with Business Plan**

The Sustainable Development Strategy comprises a four year cycle aligned with the LDA Business Plan cycle. It will be revised and updated alongside the Business Plan review and publishing process.

During each Sustainable Development Strategy cycle, the LDA will progress all six strategic objectives. It is proposed that from 2024-2028 the LDA will focus on carbon reduction and biodiversity and resilience initially.

The relationship between actions, targets and the regulatory context are shown in the Priority Actions Timeline in the following section. 2026, 2027, 2030 and 2050 are key years for the LDA from a sustainability related legislative and policy perspective.

The undertaking of a climate action road-map, as well as land-use mapping to support a biodiversity strategy, are key actions which will support the LDA in taking a structured approach to meeting these legislative targets in advance of their introduction, and will also enable the LDA to set Agency level targets which surpass minimum requirements where practicable.

2024 - 2028	2029 - 2032	2033 - 2050
Progress on all Strategic Objectives will be made during this period. There will be a focus on the objectives to <b>Reduce</b> <b>Carbon and Optimise Biodiversity &amp;</b> <b>Resilience.</b>	Progress on all Strategic Objectives will be made during this period. It is anticipated that there will be a focus on the objectives to <b>Support</b> <b>the Creation of Social Value and</b> <b>Promote Circularity.</b>	It is envisaged that there will be a focus on integration of all six objectives within the context of progress towards the National Climate Objective of a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy by 2050.
<ul> <li>Successful outcomes will include:</li> <li>A Climate Action Road-Map (i.e. baseline carbon and carbon trajectory) integrated across all business unit workstreams</li> <li>An Agency-level biodiversity strategy setting measurable targets supported by biodiversity design guidelines for a standardised approach at project level</li> <li>Meeting or exceeding regulatory milestone of EPBD alignment anticipated in 2027</li> <li>Meeting CSRD reporting requirements in 2026 and each year thereafter, meeting CSS reporting requirements from baseline year 2024 onwards</li> </ul>	<ul> <li>Successful outcomes include:</li> <li>An Agency-level social value framework, including social value strategy and guidelines implemented on projects, with measurable targets and a standardised approach embedded across the Agency</li> <li>A circular approach to design and construction embedded on projects in line with circular economy principles</li> <li>Meeting or exceeding regulatory milestones in 2030 including the Climate Action and Low Carbon Development Act and National Biodiversity Action Plan.</li> <li>Meeting CSRD and CSS reporting requirements</li> </ul>	<ul> <li>Successful outcomes include:</li> <li>Sustainable outcomes-based design approach embedded in line with the realisation of a regenerative built environment</li> <li>Full decarbonisation by 2050 in line with global, EU and national policy and regulation</li> <li>Contribution towards an increase in urban green space</li> <li>Meeting or exceeding regulatory milestones</li> <li>Ongoing monitoring and disclosure regarding statutory CSRD and CSS reporting requirements</li> </ul>

#### Key Actions 2024 - 2025

#### 2024 **Climate Action Road Map**

Undertake agency-level carbon baseline and scenario modelling (operational & embodied), including building performance standards review. Map cost optimal target pathways to 2030 and 2050.

Corporate and Social Responsibility Directive (CSRD) Readiness, Alignment and Reporting. Develop CSRD readiness programme assuming initial year of reporting in 2026 (on 2025) and reporting on an annual basis thereafter.

#### **Biodiversity Methodology and Targets**

Develop methodology for land-use assessments of pipeline sites to include ecological / biodiversity characteristics and support Agency level target setting.

#### Low Embodied Carbon Pathfinder Project

Identify pathfinder project to explore use of bio-based, lower carbon materials at scale (e.g. mass timber).

LDA Sustainable Design Guidelines 1: Land-Use and Sustainable Mobility Publish guidelines focused on sustainable land-use and mobility for LDA projects.

#### 2025 Social Value Framework

Both

Years

Produce draft / brief setting out scope of work. Identify how LDA processes could be measured and integrated into emerging social value framework, strategy, community benefit & asset management work.

#### LDA Sustainable Design Guidelines 2: Site Planning and Urban Design

Publish guidelines focused on early stage optimisation, public realm design, nature-based solutions design integration and human centred approaches.

#### LDA Sustainable Design Guidelines 3: Planning for amenity, biodiversity and nature-based solutions

Publish guidelines focused on planning for amenity, biodiversity and nature-based solutions in urban environments.

#### Whole life Carbon and Life-Cycle Costing

Develop scope for integrated approach to carbon accounting and development cost procedures to include an integrated Whole Life Carbon (WLC) and Life Cycle Costing (LCC) analysis.

#### Commercial Semi-State (CSS) Alignment and Reporting

Ensure CSS readiness - Continuing engagement with SEAI on developing our Gap to Target Modelling for our corporate activities and integrating this with our modelling of impacts from our development and asset management activities, on-going bi-annual reporting thereafter. Note: In 2024: Implement a standardised approach to assessment of site heating strategies, and valuation of emissions in investment decisions, in line with CSS Framework commitments.

## **Priority Actions Timeline**

is and largets	Climate Action Road Map Biodiversity Methodology and Targets Adaptive re-use research Identification of Low Embodied Carbon Pilot Project LDA Sustainable Design Guidelines 1: Land-Use and Sustainable Mobility	<ul> <li>Whole Life Carbon and Life Cycle Costing approach</li> <li>Implement recommendations from Climate Action Road Map</li> <li>Implement Biodiversity Methodology and Targets</li> <li>LDA Sustainable Design Guidelines 2: Site Planning</li> </ul>	<ul> <li>Ensure Zero Energy Buildings (ZEB) standard (and all other 2027 EPBD) requirements) are met by 2026</li> <li>Ensure progress is made towards Climate Action Road Map targets</li> <li>Ensure progress is made towards Biodiversity</li> <li>Methodology and Targets</li> </ul>	Ensure that progress is made towards Climate Action Road Map targets Ensure that progress is made towards Biodiversity Methodology and Targets Ensure progress is made on Social Value Framework	Strategy for phasing out any fossil fuel based systems in legacy projects by 2035 in place	<ul> <li>Achieve a minimum of;</li> <li>51% Reduction in GHG Emissions</li> <li>50% Reduction in Fossil Fuel Use</li> <li>(relative to a baseline to be confirmed)</li> <li>All new buildings designed and constructed to Zero Energy Buildings (ZEB) standard, by 2029</li> <li>Ensure progress is made towards decarbonisation and biodiversity strategy targots</li> </ul>
LDA Action	CSRD and Commercial Semi-State (CSS Framework) readiness.	and Urban Design LDA Sustainable Design Guidelines 3: Planning for amenity, biodiversity and nature- based solutions Social Value Framework CSRD: data collection year 2025	Ensure progress is made on Social Value Framework LDA Sustainable Design Guidelines 4: Sustainable Buildings CSRD: first reporting year (on 2025 data), and annual reporting thereafter	LDA Sustainable Design Guidelines 5: Building Management including post-occupancy evaluation LDA Circular Design and Circular Economy Guidelines	LDA Social Value Framework and related strategies and documents are completed and embedded within the Agency LDA Circular Design and Circular Economy Guidelines	Ensure progress is made towards social value and circular economy strategy targets LDA roadmap to climate neutrality and zero emissions published
Regulatory Context	2024 EPBD: revision to be ratified EU Deforestation Law: will apply Energy Efficiency Directive: no investment in fossil fuels by public bodies National Biodiversity Action Plan: launched	2025	2026 Corporate Sustainability and Reporting Directive (CSRD): 2026 is the first year of mandatory reporting required for an organisation such as the LDA. Reporting is based on information collected in 2025	<ul> <li>2027</li> <li>EPBD: by 2027:         <ul> <li>Life-cycle Global Warming Potential (GWP) disclosure for all new buildings &gt;2,000sqm</li> <li>Zero Energy Buildings (ZEB) standard for new buildings owned/ occupied by public authorities (applies to LDA projects)</li> <li>100% energy demand to be covered by renewable energy generated on site averaged over a year</li> </ul> </li> </ul>	2028	2029

LDA Actions and Targets

Phase-out of fossil fuels and replacement with renewable energy in the small proportion of LDA legacy acquisitions is substantially complete

Exceeds EU Restoration Law 2030 target of no net loss of urban green space and National Biodiversity Action Plan 2030 target of no net loss of biodiversity

Ensure progress is made towards climate neutrality and zero emissions targets.

Ensure progress is made towards decarbonisation, biodiversity, social value and circularity strategy targets

By 2050, the LDAs activities and outputs will be in line with the Climate Action and Low Carbon Development Acts 2050 goal of achieving the transition to a climate resilient, biodiversityrich, environmentallysustainable and climate neutral economy

The LDA's work will also be consistent with the Energy Performance of Building Directive and EU Restoration Law requirements as well as all other applicable legislation

The LDA will have met its own targets and agreed trajectories including those in relation to carbon, biodiversity, social value and circularity

## 2030

- Climate Action and Low Carbon Development Act: Commercial Semi-State companies are to achieve:
- 51% Reduction in GHG Emissions
- 50% Reduction in Fossil Fuel Use (relative to a baseline to be confirmed)
- All new buildings design and constructed to zero emissions standard.
- EPBD: by 2035, fossil fuel based heating systems to be phased out (2040 latest)

## 2050

**Energy Performance of** Building Directive: by 2050, members to have achieved a Zero Energy Buildings (ZEB) stock (both new and existing buildings) in line with the European Climate Law target of economy-wide climate neutrality by 2050

EU Restoration Law: All ecosystems restored, 5% increase urban green space, 10% increase urban tree cover

# **8 Next Steps**

Following approval of this strategy by the Board and its publication, a work programme focused on core actions for 2024 & 2025 will be finalised. This will include details on deliverables, timelines, resourcing, risk, communications plan, reporting plan and budget.

#### **Governance & Reporting**

It is intended that reporting will be structured around the three workflows identified in section 2 and noted again here. The current terms of reference for the Sustainability Working Group are to be reviewed to support monitoring and reporting of actions and initiatives under Workflows 1 & 2. Actions and initiatives under Workflow 3 will be managed through the Governance Framework Working Group and coordinated with the Sustainability Working Group.

Reporting to the Strategic Planning & Sustainability Committee of the Board will be on a quarterly basis in line with CSS target approaches and will commence in Q3 2024. EMT reporting will include monthly updates on progress of actions under each of the workstreams.



Merifieur 1	Werkflow 2	Werleflow 2
WORKTIOW 1	WORKTIOW 2	WORKTIOW 3
Strategic Objectives	Project Support	Agency-wide Alignment
Action Plan - Aims, Actions & Outcomes - Establishing Strategic Targets.	Ensuring strategic targets & reporting requirements are integrated into project level design, delivery, management & reporting.	Coordination with other LDA policies, strategies, templates & guidelines and reporting requirements under the CSRD and the CSS Framework for Commercial State Bodies through the Governance Framework Working Group. Includes the development of a CSRD readiness pathway to commence reporting in 2025

36

## **Appendix 1: Bibliography**

## **Appendix 1: Bibliography**

#### 4. Policy and Legislative Context

- UNFCCC, 'Outcome of the first global stocktake. Draft decision -/CMA.5', https://unfccc.int/documents/636608 (2023).
- 2. International Monetary Fund, 'Is the Paris Agreement Working? A Stocktake of Global Climate Mitigation', https://www.imf.org/en/Publications/staff-climate-notes/ Issues/2023/11/14/Is-the-Paris-Agreement-Working-A-Stocktake-of-Global-Climate-Mitigation-541083 (2023).
- 3. UNFCCC, 'The Paris Agreement', https://unfccc. int/ process-and-meetings/the-paris-agreement (2024).
- Hiller, N., 'The UN High Level Political Forum on Sustainable Development', 2023, https://www.europarl. europa.eu/RegData/etudes/BRIE/2023/740088/IPOL\_ BRI(2023)740088\_EN.pdf (2023).
- 5. Convention on Biological Diversity, 'The Biodiversity Plan Life on Earth, https://www.cbd.int/gbf (2024).
- Council of the European Union, 'Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the Energy Performance of Buildings (Recast) - Analysis of the Final Compromise Text with a View to Agreement', https://data.consilium. europa.eu/doc/document/ST-16655-2023-INIT/en/ pdf?utm\_campaign=website&utm\_medium=email&utm\_ source=sendgrid.com (2023).
- European Commission, 'EU taxonomy for sustainable activities', https://finance.ec.europa.eu/sustainablefinance/tools-and-standards/eu-taxonomy-sustainableactivities\_en (2023).
- 8. European Commission, 'Corporate sustainability reporting', https://finance.ec.europa.eu/capital-marketsunion-and-financial-markets/company-reporting-andauditing/company-reporting/corporate-sustainabilityreporting\_en (2024).
- European Parliament, 'Nature restoration: Parliament adopts law to restore 20% of EU's land and sea', https://www.europarl.europa.eu/news/en/ pressroom/20240223IPR18078/nature-restoration-parliamentadopts-law-to-restore-20-of-eu-s-land-and-sea (2024).
- 10. Government of Ireland, 'Climate Action and Low Carbon Development (Amendment) Bill 2021', https://www.gov. ie/en/publication/984d2-climate-action-and-low-carbondevelopment-amendment-bill-2020/ (2021).
- Government of Ireland, 'Ireland's 4th National Biodiversity Action Plan 2023–2030', https://www. gov.ie/en/publication/93973-irelands-4th-nationalbiodiversity-action-plan-20232030/ (2024).
- Government of Ireland, 'National Planning Framework - Ireland 2040 Our Plan (NPF) (2018)', https://www.gov. ie/en/publication/daa56-national-planning-frameworkireland-2040-our-plan-npf-2018/ (2020).

#### 5. Strategic Objective: Reduce Carbon - Embodied

- Irish Green Building Council (IGBC), 'Building a Zero Carbon Ireland', https://www.igbc.ie/resources/building-azero-carbon-ireland-a-roadmap-igbc/ (2022).
- Hegarty, R. O. & Kinnane, O, 'A whole life carbon analysis of the Irish residential sector - past, present and future', Energy and Climate Change 4, 100101 (2023).
- Council of the European Union, 'Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the Energy Performance of Buildings (Recast) - Analysis of the Final Compromise Text with a View to Agreement', https://data.consilium. europa.eu/doc/document/ST-16655-2023-INIT/en/ pdf?utm\_campaign=website&utm\_medium=email&utm\_ source=sendgrid.com (2023).
- Gallego-Schmida, A., Chenb, H.-M., Sharminaa, M. & Mendozad, J. M. F.,'Links between circular economy and climate change mitigation in the built environment 2', (2020).
- Antonelli, L., 'Seeing the wood for the trees -Placing ecology at the heart of construction', https:// passivehouseplus.ie/magazine/feature/seeing-the-woodfor-the-trees-placing-ecology-at-the-heart-of-construction (2021).

#### 5. Strategic Objective: Reduce Carbon - Operational

- Irish Green Building Council (IGBC), 'Building a Zero Carbon Ireland', https://www.igbc.ie/resources/building-azero-carbon-ireland-a-roadmap-igbc/ (2022).
- Low Energy Transformation Initiative (LETI),' Climate Emergency Design Guide', https://www.leti.uk/cedg (2020).
- 3. ZEB Summit, RDS, Dublin, 22nd February 2024, Presentation from Ciaran Cuffe MEP.
- European Parliament, 'Energy performance of buildings: climate neutrality by 2050', https:// www.europarl.europa.eu/news/en/pressroom/20230206IPR72112/energy-performance-ofbuildings-climate-neutrality-by-2050 (2023).

#### 5. Strategic Objective: Promote Water Stewardship

- 1. Hasman, Mina, 'RIBA Climate Guide', Royal Institute British Architects (RIBA) Publishing (2023).
- Urban water cycle processes and interactions -UNESCO Digital Library. https://unesdoc.unesco.org/ark:/48223/ pf0000149460.
- 3. Meresa, H., Donegan, S., Golian, S. & Murphy, C. Simulated changes in seasonal and low flows with

climate change for Irish catchments. Water 14, 1556 (2022).

- 4. Environmental Improvement Plan 2023. GOV. UK https://www.gov.uk/government/publications/ environmental-improvement-plan (2023).
- 5. Water Services Policy Statement 2024 2030. https:// www.gov.ie/en/publication/443cc-water-servicespolicy-statement-2024-2030/ (2024).
- 6. McCarron, G. Policy Position on Water Conservation. An Fóram Uisce https://thewaterforum.ie/policyposition-on-water-conservation/ (2023).
- National Water Resources Plan. Uisce Éireann https:// www.water.ie/projects/strategic-plans/national-waterresources/.
- 8. Water and circular economy White Paper. https:// acrplus.org/en/epr/water-and-circular-economy-whitepaper.

#### 5. Strategic Objective:

#### Optimise Sustainable Land-Use & Mobility

- Environmental Protection Agency, 'Land Use Review Phase 1', https://www.gov.ie/en/publication/f272c-landuse-review-phase-1/ (2023).
- Environmental Protection Agency, 'Research 418:Built Environment Climate Resilience and Adaptation', https://www.epa.ie/publications/research/climatechange/research-418-built-environment-climateresilience-and-adaptation.php (2022).
- Environmental Protection Agency, 'State of Environment Report', https://www.epa.ie/our-services/ monitoring--assessment/assessment/irelandsenvironment/state-of-environment-report-/.
- 4. Government of Ireland, 'National Planning Framework Ireland 2040 Our Plan', https://www.gov. ie/en/ publication/daa56-national-planning-frameworkireland-2040-our-plan-npf-2018/ (2020).
- 5. Environmental Protection Agency, Transport. https:// www.epa.ie/our-services/monitoring--assessment/ climate-change/ghg/transport/ (2024).
- Department of Transport, Government of Ireland, 'National Sustainable Mobility Policy', https://www.gov. ie/en/publication/848df-national-sustainable-mobilitypolicy/ (2022).
- Newman, P. & Kenworthy, J., 'The End of Automobile Dependence: How Cities Are Moving Beyond Car-Based Planning', Island Press/Center for Resource Economics, Washington, DC, (2015).
- 8. Whitelegg, J., 'Mobility: A New Urban Design and Transport Planning Philosophy for a Sustainable Future', Straw Barnes Press (2015).

#### 5. Strategic Objective: Enhance Biodiversity & Climate Resilience

- 1. Hasman, Mina, 'RIBA Climate Guide', Royal Institute British Architects (RIBA) Publishing (2023).
- IPBES, 'Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services', https://zenodo.org/records/6417333 (2019).
- 3. Department of Housing, Local Government and Heritage, 'Ireland's 4th National Biodiversity Action Plan' (2024).
- The Official Website of the European Union, 'Nature Restoration Law', https://environment.ec.europa. eu/topics/nature-and-biodiversity/nature-restorationlaw\_en (2024).
- Department of the Environment, Climate and Communication, 'National Adaptation Framework (NAF)', https://www.gov.ie/en/publication/fbe331national-adaptation-framework/ (2018).
- 6. UK Climate Change Committee, 'UK housing: Fit for the future?', https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/ (2019).
- Directorate-General for Climate Action (European Commission), 'EU-Level Technical Guidance on Adapting Buildings to Climate Change: Best Practice Guidance', (2023).
- 8. Environmental Protection Agency, 'Research 418:Built Environment Climate Resilience and Adaptation', https:// www.epa.ie/publications/research/climate-change/ research-418-built-environment-climate-resilience-andadaptation.php (2022).

#### 5. Strategic Objective: Promote Circularity

- 1. Lebot, B.,'UN Environment Programme Global Status Report' (2017).
- Cheshire, David, 'The Handbook to Building a Circular Economy', Royal Institute British Architects (RIBA) Publishing (2021).
- House of Commons Environmental Audit Committee, 'Growing a circular economy: Ending the throwaway society', https://publications.parliament. uk/pa/ cm201415/cmselect/cmenvaud/214/21402.html (2014).
- 4. Ellen McArthur Foundation, 'Completing the picture: How the circular economy tackles climate change', https://www.ellenmacarthurfoundation.org/completingthe-picture (2021).

## **Appendix 1: Bibliography**

#### 5. Strategic Objective: Support the Creation of Social Value

- 1. WELL Building Standard, 'WELL Standard', https:// standard.wellcertified.com/well (2024).
- 2. Jones, R., Y., G. 'The Built Environment and Health: An Evidence Review', https://www.gcph.co.uk/ assets/0000/4174/BP\_11\_-\_Built\_environment\_and\_ health\_-\_updated.pdf (2013).
- 3. Government of Ireland, 'First Report on Well-being Framework for Ireland', https://www.gov.ie/en/pressrelease/fb19a-first-report-on-well-being-framework-forireland-july-2021/ (2021).
- 4. Hasman, Mina, 'RIBA Climate Guide', Royal Institute British Architects (RIBA) Publishing (2023).
- 5. UKGBC, 'Framework for Defining Social Value', https:// ukgbc.org/resources/framework-for-defining-socialvalue/ (2021).
- 6. Royal Institute British Architects (RIBA), 'Social Value Toolkit for Architecture', https://www.architecture.com/ knowledge-and-resources/resources-landing-page/ social-value-toolkit-for-architecture (2020).

## Appendix 2: Abbreviations & Definitions

AToS	- Access to Services
BNG	- Biodiversity Net Gain
CALCDA	- Climate Action and Low Carbon Development Act
C&D	- Construction and Demolition
CSO	- Central Statistics Office
CSS	- Commericial Semi-State Framework
CSRD	- Corporate Sustainability and Reporting Directive
DNSH	- Do No Significant Harm (EU Taxonomy
DEAP	- Dwelling Energy Assessment Procedure
EPD	- Environmental Product Declarations
EED	- Energy Efficiency Directive
EPBD	- Energy Performance of Buildings Directive
ESG	- Environmental, Social and Governance
ESRS	- European Sustainability Reporting Standards
EUGD	- European Green Deal
EUT	- EU Taxonomy
GHG	- Greenhouse Gas Emissions
GWP	- Global Warming Potential
HPI	- Home Performance Index
IGBC	- Irish Green Building Council
MEPS	- Minimum Energy Performance Standards
MMC	- Modern Methods of Construction
M&R	- SEAI Public Sector Monitoring and Reporting System
NBS	- Nature Based Solutions
NDP	- National Development Plan
NPF	- National Planning Framework
NZEB	- Nearly Zero Energy Building
POE	- Post Occupancy Evaluation
PTAL	- Public Transport Accessibility Level
SUDS	- Sustainable Urban Drainage Solutions
UN SDGs	- United Nations Sustainable Development Goals
WLC	- Whole Life Carbon

ZEB

- Zero Emission Buildings

## Appendix 3: Policy and Legislative Context - Additional Information

This section provides supplementary information on the various thematic areas within some of the key policies, charters, directives and legislation listed in section 4 Policy and Legislative Context (Page 15) of this document. It should be read in conjunction with section 4.

It can be seen that there is close alignment between these and the six LDA Strategic Objectives which form the core of this document, which are to;

- Reduce Carbon (Embodied and Operational)
- Promote Water Stewardship
- Optimise Sustainable Land-Use & Mobility
- Enhance Biodiversity & Climate Resilience
- Promote Circularity
- Support the Creation of Social Value

United Nations Sustainable Development Goals

The UN SDGs comprise 17 goals in total, with the goals most relevant to the LDAs work listed below. The LDA is required to contribute to the whole-of-government approach in implementation and reporting in relation to the UN SDGs.

- 3 Good Health & Well-Being
- 6 Clean Water & Sanitation
- 7 Affordable and Clean Energy
- 11 Sustainable Communities
- 12 Responsible Consumption and Production
- 13 Climate Action
- 15 Life on Land



Montreal International Biodiversity Framework

This landmark agreement contains 23 targets which fall under four overarching goals listed below. The plan includes concrete measures to halt and reverse nature loss, including protecting 30% of the planet and restoring 30% of degraded ecosystems by 2030. The EU restoration law and Ireland's National Biodiversity Action Plan aligns with this Framework.

- A Halt loss, restore nature
- B Use lands and seas sustainably
- C Share benefits and services
- D Mobilise necessary resources



## **Appendix 3: Policy and Legislative Context** - Additional Information

**Geneva Convention on** Sustainable Housing



This is a non-legally binding document that aims to support member States as they seek to ensure access to decent, adequate, affordable and healthy housing for all.

It contributes to implementation of the UN SDGs and is focused on four areas:

- Environmental Protection а
- b Economic Effectiveness
- Social Inclusion and Participation С
- d Cultural Adequacy

# **EU Taxonomy**

- 7.1 & 7.2 Construction of New Dwellings
- 1) Substantial contribution to climate change mitigation:
  - Primary Energy Demand
- Air-Tightness/Thermal Integrity
- 2) Climate Change Adaptation
- 3) Sustainable use and protection of water and marine resources
- 4) Transition to a circular economy
- Pollution prevention & control 5)
- 6 Protection and restoration of biodiversity and ecosystems (Note: Section 7.7 also applies to LDA activities.)

## **Appendix 3: Policy and Legislative Context** - Additional Information

**National Planning** Framework



The National Planning Framework is the Governments high-level strategic plan for shaping future growth. It contains ten National Strategic Outcomes, with the following ones being the most relevant to LDA activities:

- 01 Compact Growth
- 04 Sustainable Mobility
- 07 Enhanced Amenities and Heritage
- 08 Transition to a Low Carbon and Climate Resilient Society
- 09 Sustainable Management of Water, Waste and other Environmental Resources

**Reporting Directive (CSRD)** 



**Energy Performance** of Building Directive



of the EU 'fit for 55' package, aimed at setting the EU on the path towards climate neutrality by 2050. It addresses the following areas:

- Minimum Energy Performance Standards
- Neighbourhood Approach •
- Buildings and EV charging •
- Zero Energy Buildings standard (ZEB)
- One-stop Shops •
- Smart Buildings
- Embodied Carbon •
- Solar rooftops •
- Finance

Climate Action & Low Carbon Development Act



The Act sets Ireland on a legally binding path to netzero and obligations are listed in section 4 (pg.14). The Act establishes the Commercial Semi-State (CSS) Framework, which has been adopted by the LDA board. Under the CSS Framework, the LDA are required to report on the following areas:

- Governance of Climate Action Objectives 1
- **Emissions, Measurement & Reduction Target** 2
- **Emissions Valuation in Investment Appraisal** 3
- 4 Circular Economy and Green Procurement
- 5 Climate-Related Disclosures

The European Sustainability & Reporting Standards (ESRS) set out the themes and indicators for ESG reporting as follows;

- E1 Climate Change
- E2 Pollution
- E3 Water and Marine Resources
- E4 Biodiversity and Ecosystems
- E5 Resource Use and Circularity G1 Business Conduct
- S1 Own Workforce
- S2 Workers in Value Chain
- S3 Affected Communities
- S4 Consumers and End Users

The Energy Performance of Buildings Directive is part

National Biodiversity Action Plan



The outcomes include that planning and development will facilitate and secure biodiversity's contributions to people and that data relevant to biodiversity and ecosystems is widely accessible and standardised. Overall, the Action Plan is structured as follows;

- 1 Adopt a Whole-of-Government, Whole-of-Society Approach to Biodiversity
- 2 Meet Urgent Conservation and Restoration Needs
- 3 Secure Nature's Contribution to People 4 - Enhance the Evidence Base for Action
- on Biodiversity 5 - Strengthen Ireland's Contribution to International Biodiversity Initiatives

