



Loughs Agency

Gníomhaireacht na Lochanna
Factrie für Loughs

Loughs Agency Climate Action Plan 2023

www.loughs-agency.org



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Our Climate Ambition:

**To reduce our
greenhouse gas
emissions by 51% by
2030 and be a net zero
carbon and climate
resilient Agency by
2050.**





The time to act is now:

The decade 2010-2019 was the hottest decade on record. In 2021, the World Meteorological Organisation indicated that global mean sea level reached a new record high, rising an average of 4.5mm per year over the period 2013 to 2021. In July 2021, Europe experienced some of its most severe flooding on record. Climate change is posing risks to ecosystems, health and well-being, economies, food security and threatening cultural heritage. To be consistent with the ambitions of the Paris Agreement and the goal of limiting global mean temperature rise to 1.5 degrees, global greenhouse gas emissions must be halved by 2030.

The need for leadership:

Climate change is a global challenge but requires local leadership to deliver comprehensive and innovative actions to achieve net zero by 2050. The governments of Ireland and Northern Ireland have established net zero commitments in legislation, and in policy. For public bodies, such as Loughs Agency, achieving these targets calls for transformation in delivery of public services.

The unique role of Loughs Agency:

The mission of Loughs Agency is to “sustainably manage, promote and develop the fisheries and resources of the Foyle and Carlingford Areas.” As one of the North South Implementation Bodies, Loughs Agency has an important role to play in supporting climate policy ambitions on the island of Ireland. Our services play a key role in ensuring the climate resilience of the Foyle and Carlingford catchments. Our Climate Action Plan will leverage the Agency’s Science Strategy to “use an outcomes-focused approach to deliver robust scientific evidence to conserve and manage the fisheries and natural resources of the Foyle and Carlingford areas from an ecosystem-based perspective”.

A Loughs Agency Climate Action Plan reflects the leadership role we wish to take, mapping organisational level climate risks and impacts, supporting the shift away from high carbon energy, addressing climate adaptation for our organisation and supporting climate resilient solutions for the catchments of Lough Foyle and Carlingford Lough.

CEO Foreword

Loughs Agency is an Agency of the Foyle, Carlingford, and Irish Lights Commission, established as one of the North South Implementation Bodies under the Good Friday / Belfast Agreement in 1998. The Agency aims to provide sustainable social, economic, and environmental benefits through the effective conservation, management, promotion and development of the fisheries and marine resources of the Foyle and Carlingford areas.

Loughs Agency's Strategic Direction 2020-2030 recognises the impact of climate change and the importance of collaborative working to develop the work of the Agency, create better local environments that will enhance peoples' lives and support green / sustainable growth in the local economy of our catchment areas.

Climate change is now an immediate reality, and the work of Loughs Agency has never been more relevant in protecting the aquatic environment in our catchments. The impacts of climate change are already being felt on the aquatic eco-systems that we protect, conserve and develop. We are acutely aware of the delicate ecological balance within these aquatic habitats and how this balance relates to wider eco-systems and to the wider communities who live within these areas.

While the Agency has statutory obligations and targets regarding climate action, in both jurisdictions, a planned response to climate change is at the heart of what we do. In our remit to conserve and protect the catchments under our care, we develop nature-based solutions to the challenges of climate change and implement these solutions through adaptation and mitigation strategies. Thus Loughs Agency, as an environmental organisation, has an opportunity to show leadership in the area and be an exemplar of best practice in response to climate change.

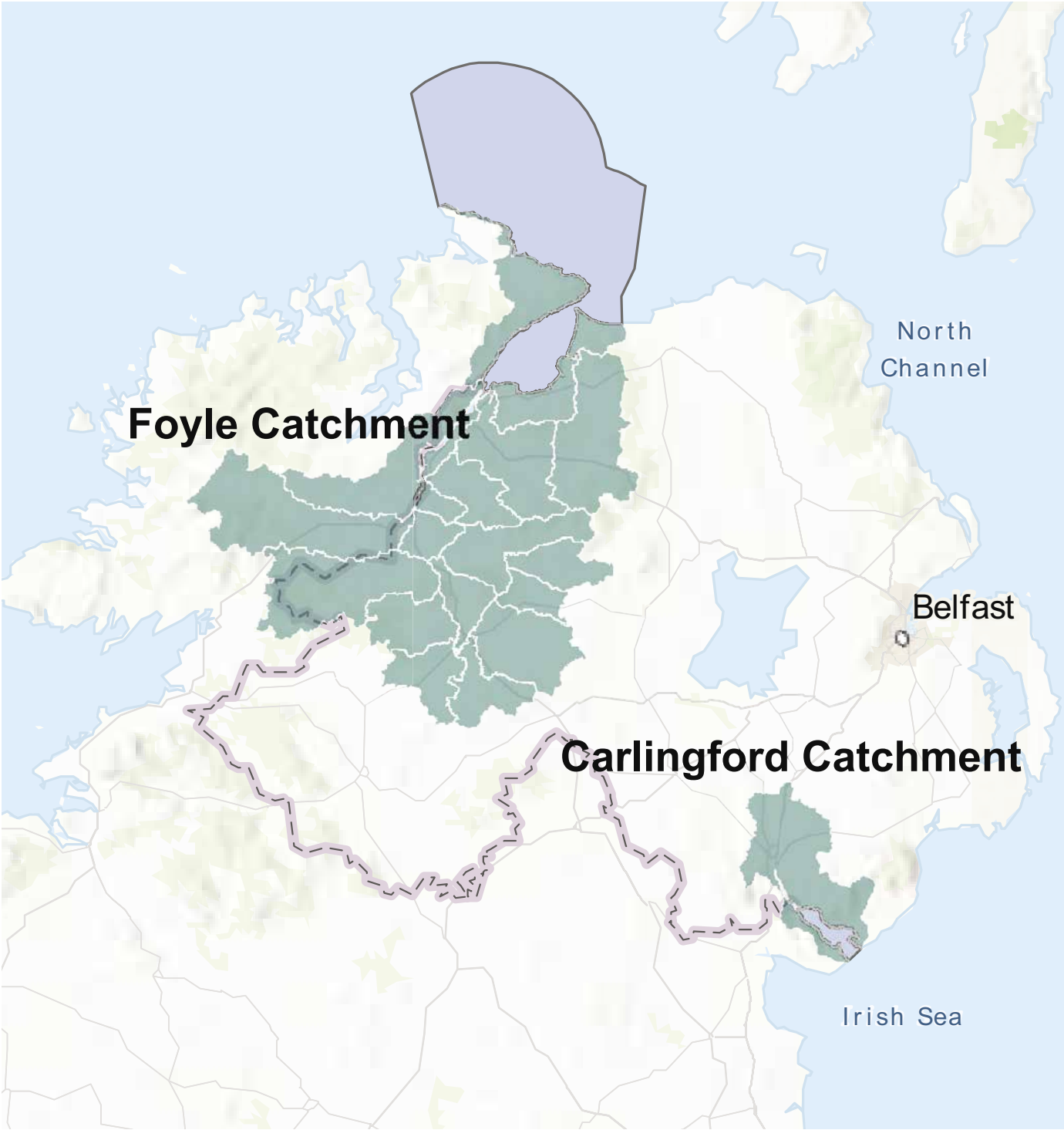
As a North South Body, the Climate Action Plan is also an opportunity for Loughs Agency to showcase how climate resilient actions and adaptation strategies can be effectively implemented across two jurisdictions.

Loughs Agency's environmental management and decision-making process is underpinned by robust scientific research and evidence-based approaches. A Climate Action Plan is an opportunity to focus our efforts on our core services of conservation and protection, to bring scientific expertise and innovation to the challenges of climate change, and to influence and plan for the future.

Our staff are passionate about their work in conserving and protecting the unique environment and species under our care. Their involvement in the development of the plan has been an important element and the achievement of its ambitious outcomes can only be achieved through the ongoing shared ownership and commitment of our staff.

This Climate Action Plan will ensure that Loughs Agency is at the forefront of developing and leading in this field, as we work to protect the natural environment and the species within the Foyle and Carlingford Catchments.

Sharon McMahon
Chief Executive Officer





1

SETTING THE SCENE

1. Setting the Scene

1.1 Climate Action – Our Operating Context

What is encompassed within this Climate Action Plan?

In developing the Loughs Agency Climate Action Plan, we have considered our assets, our people, our supply chains, and our activities in relation to both climate adaptation and climate mitigation (Fig. 1, below).

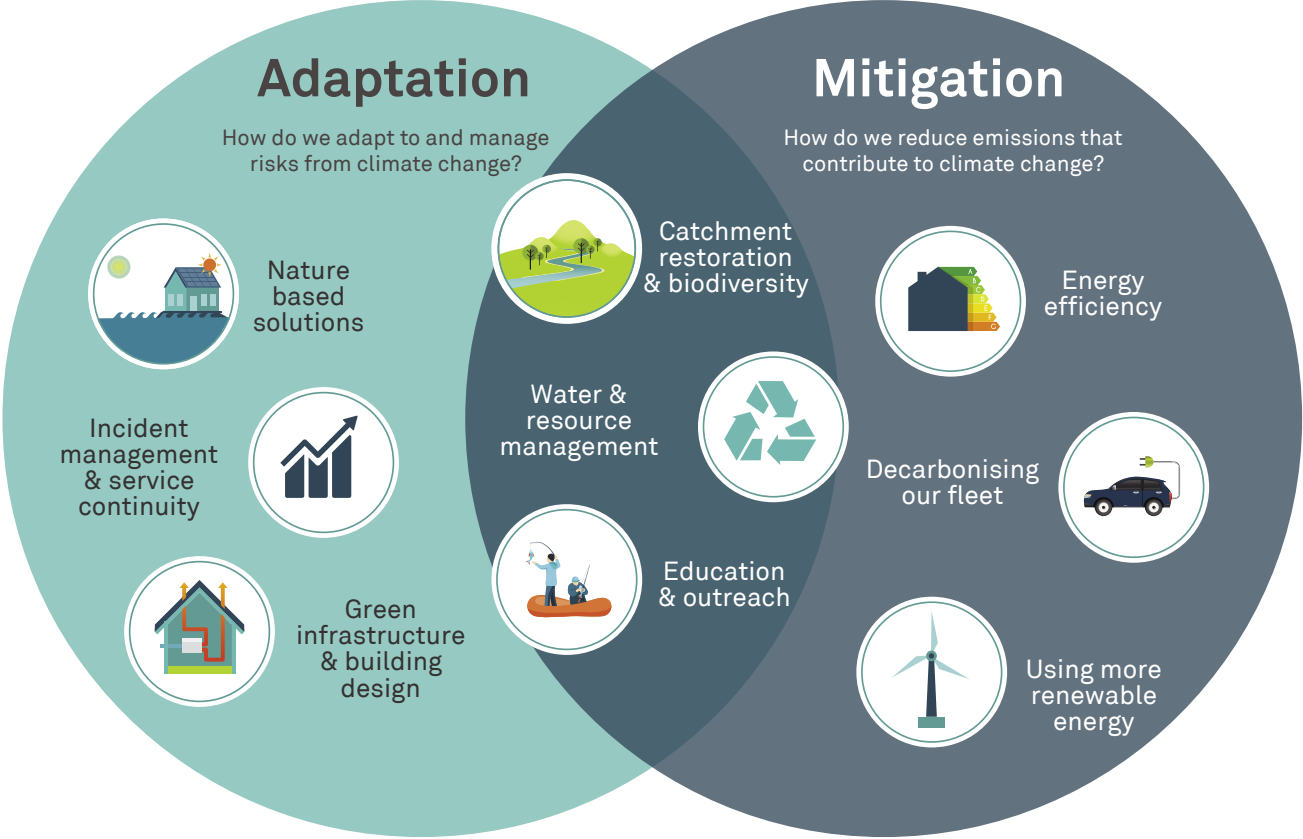


Figure 1: Key adaptation and mitigation areas for Loughs Agency

Why is a Climate Action Plan important for Loughs Agency?

Climate change is the single largest threat to the natural environment this planet has ever faced, bringing about more intense and more frequent storms, drought conditions, heat waves, changes in sea levels and warming oceans. All these impacts create additional challenges for the survival and life processes of the flora and fauna in the Foyle and Carlingford areas and in particular for our cold water and migratory species.

As a conservation and environmental based organisation, Loughs Agency is already (and has been for 70+ years) on the frontline when it comes to protecting the natural world in our catchments, and it is essential that we continue to show leadership in addressing the climate crisis.

Loughs Agency's mission is to "sustainably manage, promote and develop the fisheries and resources of the Foyle and Carlingford Areas." The threats caused by climate change significantly impact on the actions required to deliver on this mission. Our fish numbers are declining, our fish runs are later and our eco systems are changing. It is only by looking at the Agency's work from a holistic viewpoint that we can ascertain if the overall impact of our work is net zero or, better still, net positive.

Loughs Agency's Science Strategy sets out a number of Strategic Priorities for the scientific work that the Agency undertakes. All science at Loughs Agency is designed, delivered, and communicated from an ecosystem-based approach. The ecosystem-based approach requires Loughs Agency to consider all aspects of the ecosystem to deliver a system of integrated management of land, water, flora and fauna which promotes conservation and provides an informed evidence base for sustainable anthropogenic use. The ecosystem-based approach recognises that humans are an integral part of the ecosystem. It is impossible to implement an ecosystem-based approach without considering the impacts of man-made climate change.

What has been done to date by the Agency to reduce the effects of climate change on the catchments under its protection?

Loughs Agency and its predecessor, Foyle Fisheries Commission, have played a significant role in the conservation and protection of the Foyle and Carlingford ecosystems for decades. Loughs Agency has an enduring role in facilitating both jurisdictions in implementing key environmental decisions with regard to national and international agreements, EU Directives and regulations. Physical work on the ground in terms of habitat restoration, tree planting, invasive species control and other "nature-based solutions" are all tools used by Loughs Agency to try to combat

and reverse the direct impacts of climate change on our aquatic ecosystems. Additionally, long term monitoring of our water quality and the population dynamics of a number of key fish and shellfish stocks allows the Agency to monitor trends and assess the health of our ecosystems. It is only by collecting data on appropriate spatial and temporal scales that we will be able to attribute potential changes to the impacts of climate change and prioritise areas of concern.

Within our organisation, we have also made many changes to how we work. We have been increasing our use of renewable energy, strengthening the energy efficiency of our buildings, reducing our fleet, procuring electric vehicles, enhancing energy monitoring and the use of smart technologies and introducing sustainable drainage and rainwater harvesting systems.

What opportunities does this Climate Action Plan present for Loughs Agency?

The Climate Action Plan presents a significant leadership opportunity for the Agency in how we deliver on our environmental responsibilities. It will also help to showcase the work that the Agency is already doing and will provide a platform for highlighting the benefits of such work in a manner that is relevant to our stakeholders. The low-carbon transition also creates opportunities for efficiency, innovation, and growth, enabling us to explore opportunities for new products and services, build resilience across our supply chains and target resources where they are needed most.

Our hope is that the Climate Action Plan will help us to ensure that our positive impact on climate change significantly outweighs any negative impacts arising from the work we do. The Climate Action Plan needs to be embedded across all functions and strategies of the Agency, as well as being a central component of our Riverwatch outreach programme.

Through this Climate Action Plan, Loughs Agency has a responsibility to not only operate in a highly sustainable manner and to deliver real-time data and solutions to the impacts of climate change in the Foyle and Carlingford Areas, but also to clearly and transparently communicate this to our staff, stakeholders and the wider public. As an environmental organisation, Loughs Agency should be an exemplar of best practice, to which other organisations and stakeholders will aspire. To achieve this, we must continue to excel in communicating the vital work we do in the context of climate change and the difference that can be made. In the words of the Sir David Attenborough: "No one will protect what they don't care about, and no one will care about what they have never experienced".



1.2 Climate Action – Our Policy Context

In line with the legal framework of the Paris Agreement 2015 and the United Nations 2030 Sustainable Development Goals, Ireland and Northern Ireland share commitments to reduce greenhouse gas emissions. By 2050 we have a statutory requirement to be climate neutral which means whatever greenhouse gases we emit (including our carbon emissions) will have to be in balance with greenhouse gases removed from the atmosphere. By 2030 we are obliged to reduce our energy use and emissions by at least 50%.

In Ireland, the National Adaptation Framework sets out practical steps to build climate resilience to extreme impacts of climate change such as flooding, drought and storms. A series of sectoral plans have been developed including biodiversity and flood risk management. Ireland's Programme for Government targets a 51% reduction in greenhouse gas emissions by 2030 and net zero emissions by 2050.

The Climate Action and Low Carbon Development (Amendment) Act 2021 establishes the legislative basis for climate action and the 2050 target. Ireland's Climate Action Plan 2023, launched in December 2022, implements the carbon budgets and sectoral emissions ceilings as set out in 2022 and details how climate targets will be measured. It also sets out a roadmap for taking decisive action to halve emissions by 2030 and reach net zero by 2050 as committed to in the Programme for Government.

In Northern Ireland, the Northern Ireland Green Growth Strategy 2021 and the Northern Ireland Environment Strategy 2022 set out Northern Ireland's environmental priorities for the coming decades including responses to the global challenges of climate change, biodiversity loss and a multi-decade plan to balance climate, the environment, and the economy.

The Climate Change Act (Northern Ireland) 2022, sets targets for Northern Ireland to reduce its greenhouse gas emissions. All departments in Northern Ireland must ensure that net-zero emissions are achieved by 2050 and the Act also establishes the Northern Ireland Climate Commissioner as an independent office to oversee and report on the operations of the Act and to develop a Climate Action Plan by June 2024.

As well as setting a net-zero target by 2050, a reduction of at least 48% must be achieved by 2030, while the target for 2040 must be set by June 2024. Progress made to meet the carbon budgets and emissions targets must be reported to the Department of Agriculture, Environment and Rural Affairs (DAERA) by the Committee on Climate Change, an independent, non-governmental body established under the UK Climate Change Act 2008.





2

**WHERE WE
WANT TO
BE BY 2030**

2. WHERE WE WANT TO BE BY 2030 – A NET ZERO AND CLIMATE RESILIENT LOUGHS AGENCY

Our Commitment

Loughs Agency is in a strong position to drive climate action at scale, but our organisation has to move faster than the climate is changing.

We need to build on our climate adaptation and mitigation work to date and align the resources behind our Corporate Strategy, Science Strategy, Angling Improvement Strategy and Marine Tourism Strategy.

We recognise that climate change has environmental, cultural, social, and economic impacts on what we do and who we are as an Agency. This includes the direct impacts on our catchments and the social and economic value from angling, commercial fisheries, and marine tourism.

Delivery of our Climate Action Plan must ensure that mitigation and adaptation measures are considered holistically within a catchment framework and incorporate evidence on impacts to the habitats, species, and ecosystems for which we are operationally responsible.

We are confident that climate action is a shared goal across Loughs Agency and that the delivery of this plan will create opportunities for collaboration and potentially leverage additional investment.

By committing to reducing our greenhouse gas emissions by 51% by 2030 and to be a net zero carbon and climate resilient Agency by 2050, we publicly set out our ambition in line with the ambitions of our strategic stakeholders and respective government departments.

2.1 Our Baseline and Approach

Understanding the sources of our greenhouse gas emissions is the first step to reducing them. Greenhouse gas emissions are categorised into scope 1, 2, and 3 emissions.

- **Scope 1** refers to our buildings and fleet.
- **Scope 2** refers to our purchased electricity.
- **Scope 3** refers to emissions produced from the services we provide, products we purchase, leased assets. We collectively refer to these as our portfolio emissions.

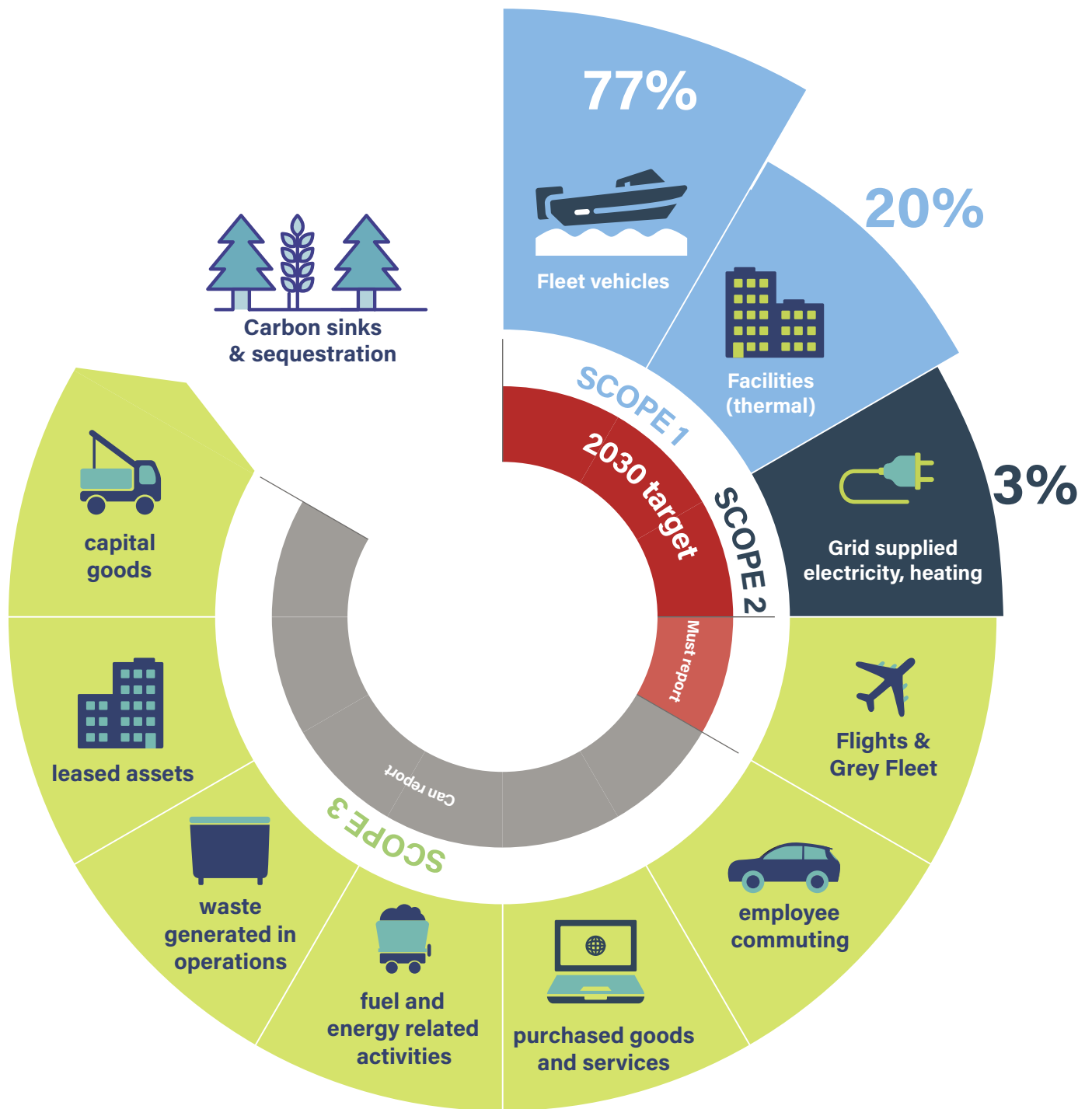


Figure 2: Scope 1, 2 and 3 emissions relevant to Loughs Agency

We are committed to reducing our emissions across our buildings and fleet (scope 1 and 2 emissions) and our wider supply chains (scope 3 emissions) by 51% by 2030 and to net zero by 2050.

In order to understand our emissions, we have combined energy consumption and activity data from our fleet and facilities in Northern Ireland and Ireland. We used an emission factor to calculate the quantity of greenhouse emissions per unit of energy consumption or activity. All emission factors used in this document are in units of kgCO₂ 'per X', where X is a unit of energy or activity.

Different energy / fuel types have different emission factors. For example, gasoil has a higher emission factor than natural gas. It's worth noting that while emission factors for some energy types do not change, they do change for others. For example, emission factors for electricity change from year to year depending on how much renewable energy is on the grid, while diesel blends will change depending on how much biofuel is added to the blend.

Approximately 77% of our emissions come from transport. Reducing these emissions through fuel switching and electrification will pose a huge challenge and will require us to work hard and think differently about how we deliver our critical public services.

To date we have not been required to report on our Scope 3 emissions but have committed to doing this in coming years, starting with our business travel.

To support our emissions reduction, we will build on our current practice of monitoring and reporting of emissions, with an aim to strengthening the effectiveness of these approaches over time, subject to data availability.

Figure 2 outlines a breakdown of Loughs Agency's estimated emissions under Scope 1 and 2 and includes possible Scope 3 emissions which we will track in the coming years.

Figure 3 below sets out the high-level roadmap for this strategic period to better understand our full greenhouse gas emissions impact.

To guide us on our journey to net zero by 2050, the graphic below (Figure 3) presents proposed interim decarbonisation targets for key action areas by 2030. We will need to leverage the ingenuity of our staff and secure the funding and investment required to deliver on our identified pathway for decarbonisation and to close our gap to target.

In order to achieve the above, our high-level pathway for decarbonisation includes the following:

1. Update our scope 1 and 2 greenhouse gas emissions in line with ongoing work.
2. Estimate our scope 3 greenhouse gas emissions, starting with our highest emitting assets and processes.
3. Develop interim decarbonisation targets.
4. Further build our understanding of our scope 3 greenhouse gas emissions and continue to improve our approach to measuring these over time.
5. Continuously develop our approach to incorporating climate change into our decision-making.

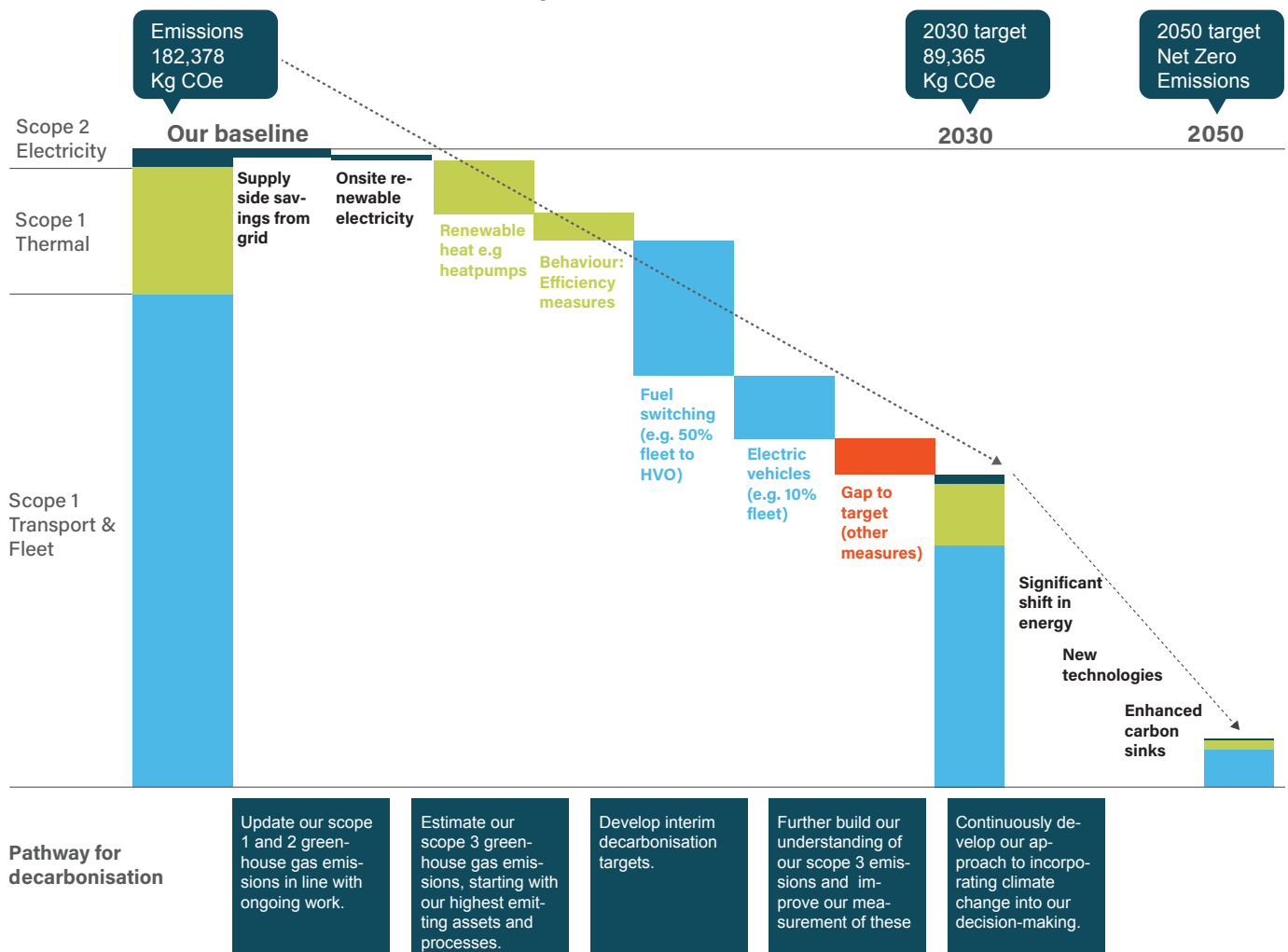


Figure 3: Our proposed decarbonisation roadmap.

2.2 Where we want to be by 2030

Our catchments are our primary resource and we are acutely aware that higher water temperatures, increases in drought incidents due to drier summers, and changing river flows due to wetter winters, could increase the degradation of freshwater habitats and compromise the viability of some of our freshwater habitats and species.

Through this plan, by 2024, Loughs Agency will be implementing an agile, risk-based approach to climate adaptation across our catchment areas. We will establish the organisational capacity and implementation structure required to be responsive to direct and indirect climate impacts, allowing us to prioritise and plan work programmes.

Some critical assets and infrastructure, such as riverbanks and monitoring equipment are at risk of deterioration from the impacts of climate change, especially frequency and intensity of storms and periods of drought and water scarcity. Damage is potentially becoming more frequent in the future due to flooding, erosion and subsidence.

Each of our assets has unique management and maintenance challenges. First and foremost, we must ensure these assets remain safe for those that work in or visit our catchment areas for angling and other on-water recreation. In addition, we must ensure that our aquatic assets, such as our statutory fish counters, are future proofed to allow for routine maintenance, validation and calibration in high water conditions which are likely to occur with increased frequency as a result of climate change. Failure to ensure that our assets are appropriately adapted has the potential to impact on the accuracy of data collection and the validity of data produced.

Warmer and wetter winters may also increase the frequency of invasive non-native species and pathogens. More frequent flooding may also put pressures on water treatment facilities and surface water management leading to negative impacts on water quality across our network.

In addressing climate adaptation and climate resilience, we will build on our existing and well-established approaches and strengthen our long term planning and risk-based responsiveness. Over the timeframe of this plan, we will explore the transition to formalised standards of climate adaptation, such as through the ISO 14091 standard, to contribute towards systemic climate resilience across our network.

The evidence-based approach of our Science Strategy will be central to ongoing risk assessment and implementation of this Climate Action Plan. At the outset, we recognise that key climate risks and opportunities are outlined on the table below.

The ranking in the table is a qualitative assessment of risks, each are scored in terms of probability and consequence. The final risk scoring is arrived at by multiplication of the scoring of probability by consequence. The colour coding is a spectrum between Red (highly probably and high impact) and Green (Low probability and low impact).

CLIMATE CHANGE RISKS AND OPPORTUNITIES FOR LOUGHS AGENCY			PROBABILITY	CONSEQUENCE	RISK
Hazard	Impact	Consequence			
Increased frequency of extreme precipitation	Increased (fluvial and pluvial) flooding	Increased run-off and discharge into rivers and waterways, resulting in increased sediment and nutrient loading, impacting upon designated species such as salmon	8	8	64
	Increased river and stream flow	Increased soil erosion/bank erosion	7	9	63
	Changes in river flow and timing	Impacts on migratory patterns and cues	5	7	35
	Increased river and stream flow	Increased instability of embankments	5	7	35
	Increased (fluvial and pluvial) flooding	Increased groundwater and drainage surcharge, resulting in damage to buildings, infrastructure	5	9	45
	Increased (fluvial and pluvial) flooding	Damage to tracks and road submersion, overstrained drainage systems, instability of embankments	7	9	63
Increase in frequency of high temperatures and low precipitation	Reduced river and stream flow and low recharge of groundwater	Reductions in water quality and oxygen content leading to increased loss of fish	3	7	21
	Increased temperatures in water bodies	Increased algal bloom growth, reduction in water quality, fish mortalities, distribution and spread of invasive species	5	3	15
	Reduced river and stream flow	Reduced capacity of rivers impacting on angling	3	9	27
	Increased drought conditions	Increased maintenance requirements	8	8	64
	Increased drought conditions	Decrease in the water supply and increase in water demand leading to supply restrictions	4	0	0
	Increased drought conditions	Reduction in sources of water (especially groundwater), resulting in reduced water quality	2	0	0
	Reduced river and stream flow coupled with high temperatures	Reduction in oxygen, negative impacts on fish survival, increased susceptibility to angling stress induced mortalities	2	9	18
	Increase in sunshine hours in spring and autumn periods	Longer tourist season and associated positive impacts on businesses and loughs communities	0	9	0
	Deterioration of wetland habitats as a result of desiccation or erosion	Increased maintenance requirements	8	8	64
Increased cooling requirements for current and planned building stock	Reduced work output and an increase in energy use associated with fans and air conditioning	4	6	24	

	Increased cooling requirements for current and planned building stock	Increased energy consumption	6	5	30
	Health and safety concerns for staff working outdoors	Impacts on people accessing the loughs	6	6	36
	Increased public discomfort	Impacts on people accessing the loughs			0
	Increase in sunshine hours	Increased levels of human heat stress resulting in heat-related health impacts	6	8	48
	Increase in sunshine hours	Increase in demands on the tourism and hospitality sectors, leading to a greater demand on services and the need for additional staff/ resources	8	7	56
Low-temperature events	Changes in water body temperature	Impacts on aquatic plants and animals (living in or requiring access to water bodies) because of temperature conditions deviating significantly from the norm. Impacts on multiple trophic levels resulting in ecosystem deterioration	4	8	32
	Increase in snow, ice and freezing conditions	Frozen or burst pipes, resulting in increased pipe repair and road repair work	4	7	28
	Increase in snow, ice and freezing conditions	Hazardous conditions on Loughs resulting in navigation disruption and accidents	4	6	24
	Increase in damaged and cracked hard surfaces	Additional repair costs and costs associated with riparian buffer strengthening	6	7	42
	Increased storm impacts	Damage to riverbanks resulting in disruption to fish stocks	6	6	36
	Increased storm impacts	Damage to bridges, tracks and moorings – impacts on hydromorphology	6	6	36
	Wind-related damages	Disruption of community, cultural and sporting events, resulting in loss of income and/or reputational damage	5	6	30
Increase in frequency and intensity of strong winds	Wind-related damages	Asset and embankment damage and service disruptions	4	9	36
	Wind-related damages	Difficult boating conditions and increase in accidents, resulting in additional pressures on LA	5	6	30
	Loss of available workdays	Delays in and associated increased costs for maintenance and construction	6	9	54



**HOW DO WE
GET THERE?**

3. HOW DO WE GET THERE?

Our Climate Action Plan establishes a strong and shared basis for Loughs Agency to deliver on climate action. We recognise, however, that our approach will need to remain agile and proactive through the lifetime of this plan, both in how we measure our performance and achieve our objectives.

We developed a framework of key objectives and key results to guide us in the implementation of the plan and to measure our success. Utilising a framework of objectives and key results will allow us to be flexible and responsive to the dynamic context in which we operate. It will also enable innovation around delivery of services, delivery of this Climate Action Plan and identification of future challenges and opportunities.

Our Key Objectives and Key results

3.1 Our Buildings and Property



Objective 1

To create better working environments for our staff while reducing emissions and increasing energy efficiency across our buildings and property

Our buildings account for approximately 22% of our greenhouse gas emissions.

We are continuing to invest in the decarbonisation of our building stock and have incorporated multiple decarbonisation measures to date. We know we can do more with our other buildings and facilities in relation to energy performance.

We have upgraded and will continue to enhance our energy management programme to proactively assess the potential to conserve energy, reduce energy usage and source electricity and heat from renewable sources such as solar panels, heat pumps and combined heat and power, etc. Importantly we will create better workspaces for our staff.

Our key results towards this objective

In order to meet the above objective, we have identified a programme of key results. Alongside the key results, we have set out initiatives that need to be delivered and the key metrics these will be measured against.

Loughs Agency already has a range of climate-related initiatives underway across our buildings and facilities. Through this Climate Action Plan, we will build on these initiatives to deliver the following key results:

KEY RESULTS	CURRENT INITIATIVES	FUTURE INITIATIVES
Reduced energy-related carbon emissions in line with statutory targets by 51% by 2030	Focussed retrofit and offloading programmes on assets with high energy demand e.g. key offices and specific pumps to be completed by 2026.	Explore potential to continue the valuable outreach programmes, without the need to re-open the aquarium as a permanent asset.
Met increased share of electricity and heat requirements through renewable sources, including on site generation e.g. photovoltaic	Solar energy is in place and helping to meet current energy needs across a number of facilities.	Annual programme to scale the use of renewable energy technologies across our primary energy-using facilities year-on-year. Commencing 2024. On-site battery charging stations for electrofishing packs and YSI probes that use renewable energy installed by 2025. Ongoing review and desk research on the potential of new and emerging micro-hydro / tidal technologies as they evolve. Annually from 2024.
Established feasibility of ground source and/or air to water heat pumps for Loughs Agency premises and responded accordingly.		Feasibility study of ground source and/or air to water heat pumps for Agency premises completed by Q2 2024.
Fully resourced Loughs Agency energy management programme with a focus on operations by Q4 2023	Loughs Agency currently completes annual Sustainable Energy Authority of Ireland Monitoring and Reporting data and will also meet Northern Ireland Climate Change reporting requirements (by end 2023).	Continue to improve data quality to monitor trends in our energy use and greenhouse gas emissions against baseline and, where possible, include asset level data from 2024.
Obtained ISO 50001 certification for energy management by 2030		Identify requirements and assign responsibility to advance ISO 50001 certification.
Key Metric: Kg CO ₂ e		
Future Metric: Tonnes CO ₂ e sequestered per hectare land under Loughs Agency operational control		

3.2 Our Travel and Fleet



Objective 2

To deliver high quality public services to connect our people to the catchment areas we manage, using low emission vehicles, well managed fleets, and opportunities for active travel.

Our travel and fleet accounts for approximately 77% of our greenhouse gas emissions.

Our fleet is critical to the delivery of our services in sometimes demanding conditions. We know we can do more with our fleet and fleet management.

We will be proactive in enhancing our existing fleet, rolling out a replacement programme to transition towards low and no emission vehicles.

Our key results towards this objective

In order to meet the above objective, we have identified a programme of key results. Alongside the key results, we have set out initiatives that need to be delivered and the key metrics these will be measured against.

Loughs Agency has been undertaking initiatives to reduce emissions from fleet and travel. Through this Climate Action Plan, we will build on these initiatives to deliver the following key results:

KEY RESULTS	CURRENT INITIATIVES	FUTURE INITIATIVES
Reduced emissions from direct business travel compared to our statutory baseline year by 51% by 2030.	Currently undertaking trials of autonomous technologies to reduce the need for travel e.g. drones / gliders for data sampling retrievals. Electric vehicle charging points in place.	Scale application of autonomous technologies where appropriate. Examine cost model for fuel switching (e.g., HVO) for vehicles that are not suited to electrification or where service life of vehicle can be extended. Installation of a wider network of electric charging points across our area by 2027.
Comprehensive fleet replacement programme to prioritise electrification where viable.	Electric vehicles currently in use.	Transition to hybrid and electric on-road vehicles purchased and use diesel vehicles only when necessary. Review of potential for phased transition of on-water fleet to electric power.
Climate and efficiency considerations incorporated into Fleet Management system.	Data-based fleet management system in place for on-road vehicles.	Explore potential for fleet system data to inform initiatives to further reduce travel-related emissions.
Rolled-out resources and strengthened capacity for digital and remote working.	Developing a Hybrid Working Policy in line with Departmental guidelines. Remote digital environmental sensors in place – providing continuous real-time data on a 24/7 basis.	Provide more appropriate technology to facilitate remote working during a response to a crisis. Scale and enhance remote monitoring of assets to strengthen real-time monitoring of environmental events, utilising the most up-to-date and efficient technologies. Reduce travel between Loughs Agency office locations, where appropriate.
Metric: Kg CO ₂ e		

3.3 Catchment Adaptation and Biodiversity



Objective 3

To ensure the fisheries and marine resources of the Foyle and Carlingford catchment areas are climate resilient, and climate risks are managed in an integrated way.

Improving the climate resilience of our catchments, assets and infrastructure will bring medium and long-term benefits as the cascading impacts of climate change are avoided or dealt with in a cost-effective manner.

Our Science Strategy and our Angling Improvement Strategy are both critical to the delivery of this Climate Action Plan and will assist in the development of consistent indicators of climate risk resilience for our catchments, assets and infrastructure; allowing us to monitor our progress over time.

Our key results towards this objective

In order to meet the above objective, we have identified a programme of key results. Alongside the key results, we have set out initiatives that need to be delivered and the key metrics these will be measured against.

Loughs Agency has significant in-house expertise in adaptation methodologies that protect and enhance the ecosystems of the loughs and catchments, in line with our remit. Through this Climate Action Plan, we will further strengthen our work in this area to deliver the following key results:

KEY RESULTS	CURRENT INITIATIVES	FUTURE INITIATIVES
Developed more accurate and consistent data for potential adaptation strategies.	Consistent monitoring of identified parameters to assess long-term trends in chemical and biological water quality and in hydro-morphology. Acoustic telemetry is used as a tool to monitor behaviour of migratory species and inform management strategies.	Scale the use of acoustic telemetry to monitor trends and changes in behaviour of migratory species attributable to climate change. Enhance scale of catchment-wide habitat quality baselining. Strengthen and scale staff training and technical support to ensure accurate, robust baseline data.
Routinely applying ground and weather monitoring and the use of real-time decision support tools as a potential method to mitigate climate risks.	We have a number of weather stations on-site across our catchments, linked to YSI probes providing water quality data.	Increase use of novel techniques and new technologies to amass scientifically robust data sets that can inform evidence-based decision making.
Ensured no significant water, land or air pollution incidents as a result of our activities.	All habitat works are currently screened in line with Habitat Regulation Assessments, to assess potential impacts and ensure biosecurity at all times.	Expand use of nature based solutions e.g., Integrated Constructed Wetlands and riparian buffer strips to accept runoff.
Undertaken soft engineering and instream works in vulnerable areas, as part of our annual work programme.	A range of green engineering and nature-based solutions are already integrated into our work across catchments. Planting of native broadleaf tree species to fortify riparian buffers, provide shade during drought periods, improve soil permeability and moisture-holding capacity, and increase biodiversity. Livestock fencing to protect watercourses and installation of gravity feed and solar powered pasture pump / troughs along the riverbanks. We are currently mapping the presence of barriers across our catchments.	Scale planting of native broadleaf tree species. Livestock fencing to protect watercourses. Develop more barrier removal projects. Scale habitat improvement schemes. Seek new methodologies to strengthen green engineering and move away from grey engineering solutions.

Metric:

% Ha. / Km of catchment area covered by adaptation measures

Future metrics:

- Number/Value of assets within catchment areas at higher level of protection due to adaptation measures
- Reduced asset damages (£ / property) within catchment areas
- Value of avoided damage within catchment areas through INNS control

3.4 Our supply chains



Objective 4

To prioritise our procurement towards reducing greenhouse gas emissions, advancing the circular economy and investing in natural capital

A significant amount of our greenhouse gas emissions are associated with scope 3 emissions, which are the emissions produced from the services we provide, products we purchase, leased assets. We collectively refer to these as our portfolio emissions.

We can reduce our scope 3 emissions by:

- Reducing our exposure to high greenhouse gas emitting product and services;
- Supporting more low/no carbon activities in the catchment areas and support projects that remove carbon from the atmosphere; and
- Ensuring that the greenhouse gas emissions from our services and those accessing our catchment areas are minimised.

Our key results towards this objective

Improving the climate resilience of our catchments, assets and infrastructure will bring medium and long-term benefits as the cascading impacts of climate change are avoided or dealt with in a cost-effective manner.

Loughs Agency is committed to enhancing sustainability in our procurement and supply chains, in line with appropriate procurement guidance. Through this Climate Action Plan, we will strengthen our work in this area to deliver the following key results:

KEY RESULTS	CURRENT INITIATIVES	FUTURE INITIATIVES
Integrated climate and decarbonisation into procurement and asset management prioritisation by 2025.	Operating in line with relevant guidelines for green procurement.	Life cycle costing tools and techniques tested within future procurement programmes.
Delivered on agreed targets for procurement performance.	Sourcing local materials for river restoration projects e.g. aggregate and pinned wood material are sourced locally to ensure fit with local ecosystems and reduction of delivery journeys.	Develop an asset level KPI around carbon usage / value for assets. Source only biodegradable materials.
Reduced waste from Loughs Agency offices.	Loughs Agency has systems in place for office-based recycling.	Review any paper-based processes and evaluate the possibilities for digitisation so it becomes the default approach. Strengthen the separation of waste streams across Loughs Agency facilities. Improve disposal systems for field work materials - fishing nets and surgical (scientific) materials. Appropriate disposal of laptops / phones, where refurbishment is not possible and/ or where replacement is more environmentally sound.
Developed a framework for Natural Capital Accounting.		Increased use of sustainable, recycled, upcycled, local materials in habitat restoration works initiatives. Lessons from existing initiatives undertaken by Loughs Agency can be replicated for other instream works.
Evaluated potential of our Digital Transformation Policy, Innovation Strategy and ICT Policy to support the climate ambitions of the Agency.		Implementation of lessons / initiatives arising.
<p>Metrics:</p> <ul style="list-style-type: none"> • £ spend delivered in line with new procurement and asset management approaches • % of spend / no. of contracts with sustainability criteria built in • Kg CO2e (Scope 3) 		

3.5 Our People, Stakeholders and Communities



Objective 5

Deliver on our climate objectives using the knowledge and expertise of our staff, collaboration with our stakeholders, and outreach with communities across the Foyle and Carlingford areas.

Ongoing engagement during the development of this plan highlighted clearly that our staff recognise the need to decarbonise our operations by reducing direct CO₂ emissions from vehicles, electricity use and waste management, as well as indirect emissions from our procurement.

We have a highly skilled and experienced workforce that are passionate about the work they do and the role of Loughs Agency. The direction and actions of this Climate Action Plan have been shaped in close collaboration with Loughs Agency staff, who will be central to its delivery and success.

The engagement with staff also highlighted how our work with stakeholders on the ground, including our education and outreach activities, plays a critical role in influencing the behaviours of those that live within, work in and visit our catchment areas. Loughs Agency is proud to be a bronze corporate member of 'Leave No Trace' and we will continue to adopt best-practice frameworks that can support our partnership-working with the communities in our catchments.

Our key results towards this objective

Improving the climate resilience of our catchments, assets and infrastructure will bring medium and long-term benefits as the cascading impacts of climate change are avoided or dealt with in a cost-effective manner.

Loughs Agency staff bring significant expertise to the area of climate action. Through this Climate Action Plan, we will further support our staff, and their work with partners and stakeholders, to deliver the following key results:

KEY RESULTS

A culture of climate action within Loughs Agency is developed through the delivery of positive outcomes and regular engagement with staff and stakeholders.

CURRENT INITIATIVES

Climate action is central to the work of our education and outreach programmes.

FUTURE INITIATIVES

Establish a climate action governance structure and Climate Action Policy Team from across the organisation.

Conduct a corporate resilience / readiness assessment for climate change events to equip and train staff to respond appropriately and provide support for stakeholders.

Supervisors and managers trained to undertake energy management and climate risk audits.

Mandatory climate action and energy efficiency training courses.

Integrate a climate element into Loughs Agency job profiles and performance review process by Q4 2023.

Reporting back to staff on Climate Action Plan progress as part of quarterly staff conferences.

Climate is built into all of our education, outreach and communications.

Providing opportunities for climate related education and outreach amongst the wider population of the Foyle and Carlingford areas.

Communication and engagement activities with public and stakeholders to inform and educate people on the importance of climate action within our work.

Build on our current education and outreach programmes to strengthen the emphasis on climate action in our work.

Contributing to third-party research and all-island initiatives on climate action and resilience in aquatic environments.

Contribute to North / South governmental policy development on fisheries-based mitigation.

Identify potential for projects / partnerships with external partners.

Metric:

Self-reported responses to surveys

Future metrics:

- Numbers of visits; hours spent in blue & green space within catchment areas
- Improvements in educational attainment due to higher quality local natural environment among visitors and those living within catchment areas
- Quality Adjusted Life Year metrics (monetary value) among visitors and those living within catchment areas

3.6 Prioritisation in Delivery: Our steps towards these objectives

We will build on the work we are doing already while knowing we must change as an organisation to more effectively deliver on climate action. The table below outlines the key changes we will expect to see in our organisation as a result of delivering the above key results.



	ESTABLISHING (YEAR 1)	EMBEDDING (YEARS 2-4)	SCALING (YEAR 5+)
Our buildings and property	<p>Aligning the work of our Energy Performance Officer with this Climate Action Plan.</p> <p>Increasing the use of energy management data to enable appropriate targeting of our investments.</p>	<p>Managing our energy use and transitioning away from carbon intensive energy sources and complying with the energy performance in Buildings Directive that requires new buildings to be “Nearly Zero Energy”.</p>	<p>Monthly cumulative electrical energy usage data compared to cumulative electrical energy usage for the same month in previous year.</p> <p>Comparing year-on-year thermal data, tracked against Heating Degree Days.</p> <p>Monitor energy consumption trends and take corrective actions when anomalies are found.</p> <p>Predicting future energy use</p>
Our travel and fleet	<p>Ensuring the aims of the EU Clean Vehicles Directive are delivered by identifying options and timeframes for procurement of Low Emission Vehicles.</p>	<p>Reducing emissions of our fleet and business travel in key priority areas in line with statutory targets.</p>	<p>Completion of Fleet Replacement Plan commenced in Year 1.</p> <p>Prioritising the provision of adequate electric vehicle charging infrastructure where parking is provided for employees and/or the public and encourage employee car-pooling.</p>
Catchment adaptation and biodiversity	<p>Measuring and adapting to climate change risks in line with the Northern Ireland Climate Change Adaptation Programme, Ireland’s Sectoral Climate Adaptation Plans and landscape plans.</p>	<p>Improving the climate resilience of our assets and infrastructure will bring medium and long-term benefits as the cascading impacts of climate change are avoided or dealt with in a cost effective manner.</p>	<p>Utilising accurate and consistent data for understanding the linkages between climate impacts on catchments and understanding potential adaptation strategies and trends over appropriate spatial and temporal scales.</p>
Our supply chains	<p>Ensuring that our procurement incorporates sustainable criteria and is climate proofed.</p>	<p>Developing a profile of Scope 3 emissions profile and incorporating climate and sustainability measures in contracts and tenders.</p>	<p>A sustainable procurement policy that incorporates Scope 3 disclosures.</p>
Our people, stakeholders and communities	<p>Mandatory and regular climate action training in place for all staff.</p>	<p>Climate action ‘induction’ training in place for all new staff, returning staff, or staff changing roles within the Agency.</p>	<p>Empowering staff to contribute to climate action improved information-sharing sessions, knowledge and responsibility.</p>

4

**HOW DO
WE MAKE
IT HAPPEN?**

4. HOW DO WE MAKE IT HAPPEN – OUR PEOPLE AND OUR PROCESSES

We recognise that the actions in this Climate Action Plan will evolve and strengthen as climate policy requirements change and when we have developed capacity to go beyond targets. We will review and if necessary, revise this Climate Action Plan on an annual basis.

We will ensure that implementation is flexible and continue to identify and develop additional and specific actions on climate action. We will develop actions to reduce the risks associated with negative climate change impacts and build resilience to these impacts through effective implementation of Climate Adaptation Strategies / Climate Change Action Plans.

4.1 Governance

We will embed decarbonisation, climate resilience and Just Transition at the centre of our Agency's work aligning with the recommendations of the Science Strategy, Angling Improvement Strategy and upcoming Marine Tourism Strategy and investing in climate related roles, including at Senior Management and Board level.

Over the last 12 months our governance structure has been enhanced to align with our new Strategic Direction, our Science Strategy and upcoming Marine Tourism Strategy.

These new structures will help to increase scrutiny of our approach towards climate risks, identify opportunities for decarbonisation, and enhance energy and emissions monitoring.

Our CEO has overall responsibility for the Climate Action Plan and our Board provides oversight of delivery against climate strategy and policy within the Agency.

Supporting the work of the staff and the CEO, Loughs Agency will designate a new Climate Action Lead from within the existing Heads of Teams. This Climate Action Lead will be responsible for establishing the Climate Action Steering Group that will oversee implementation of the Climate Action Plan. This Steering Group will be supported by a new Climate Action Policy Team (CAPT) which will be made up of staff from across Loughs Agency.

This CAPT will leverage the significant in-house expertise available to Loughs Agency and strengthen the Agency's ability to provide advice and evidence for the actions being delivered over the timeframe of this plan. The CAPT will create focus on how Loughs Agency manage our climate change approach and ensure appropriate monitoring and reporting for our work in this area.

The proposed implementation structure is set out in Figure 4 below: Loughs Agency Climate Action Plan implementation structure:



4.2 Decision-making

We will continue to take account of climate in our decision-making and delivery of our services:

- When undertaking economic appraisals of significant expenditures, projects and proposals, the shadow price of carbon, as set out in the Public Spending Code, should be used.
- Use required public sector guidelines to measure the carbon impact of our various activities as accurately as possible and report as required to inform progress against targets.
- Integrate climate criteria across our organisational and departmental plans and strategies, Annual Reports and Corporate Risk Registers.

4.3 Change Management

We will support staff in the implementation of this Climate Action Plan, so they are supported and empowered to implement the changes for Loughs Agency.

- We will leverage the skills and knowledge of our staff, and build capacity within our staff, recognising this as a shared ambition and responsibility for the Agency.
- Appoint a member of the Senior Management Team / Board as Climate Lead / Champion with the responsibility of leading the Climate Action Steering Group.
- Establish a Climate Change Forum that hosts events, at least annually, where staff can hear from climate change experts and learn about the implementation of this plan from teams across the Agency.
- Implement an internal Communications Strategy to deepen staff awareness of climate change issues.
- Work with colleagues across departments to embed a culture of climate change awareness in our staff, so they take account of climate change in all that we do.

4.4 Developing our people

We will ensure to leverage the extensive knowledge and expertise of our staff and ensure all staff have access to the appropriate knowledge, training and awareness needed to deliver this plan.

- Resource and implement a long-term training and development plan for staff, in collaboration with Climate NI, Climate Action Regional Offices and other relevant stakeholders across both jurisdictions.
- Support staff to reduce carbon emissions across all areas of work and encourage employee-led groups to identify and implement ideas for improvement.
- Survey staff annually to track views, training needs, and opportunities for innovation in the delivery of our Climate Action Plan.

4.5 Community and stakeholder engagement

We will engage with our external communities and stakeholders to help support delivery of our Climate Action Plan.

- Report progress on climate through existing annual reports and other public facing channels.
- Cultivate opportunities for climate related education and research with enterprise, academia, community, voluntary groups and strategic stakeholders.
- Inform stakeholders, such as anglers, of sources of funding for implementing climate action projects.
- Explore opportunities to partner or collaborate on climate action initiatives across the public, private and education sectors.



APPENDICES

5. APPENDIX 1 - LINKS AND RESOURCES

5.1 Glossary

- **Active travel** – Includes walking, running, cycling, scootering, skateboarding, low-speed electrical devices such as motorised wheelchairs, e-scooters, and electric-assist bicycles.
- **Adaptation** – Adaptation seeks to mitigate, avoid harm, or exploit beneficial opportunities from expected climate change and its effects.
- **Asset Management** – The coordinated activity of an organisation to realise value from assets. This involves the balancing of costs, opportunities and risks against the desired performance of assets to achieve an organisation's objectives.
- **BER** – Building Energy Rating (BER) indicates how energy efficient a building is on a scale from A1 to G, where A is the most efficient and G is the least efficient.
- **Biofuel** – Biofuels are renewable fuels produced from biomass. Biofuels must be compatible with existing engine and fuel requirements; there are often similar properties between biofuels and their conventional fossil fuel counterparts.
- **Carbon Budgets** – Defines the total amount of greenhouse gas emissions that is permitted to emit during each carbon budget period.
- **Carbon Neutral / Net Zero** – Sometimes known as Net Zero Carbon, is where any Carbon Dioxide (CO₂) or Greenhouse Gas (GHG) emissions after decarbonisation are equal to or less than the emissions removed by carbon sinks and carbon sequestration e.g. through forestry or managed wetlands.
- **Circular Economy** – Economic activity that is decoupled from the consumption of finite resources. A circular economy aims to keep resources in the economic system for as long as possible and phase waste out of the system.
- **Climate Action** – Any policy, programme, project, or activity initiated with the intention to provide some contribution to climate mitigation or adaptation.
- **Climate Action Plan** – A strategic document (or series of plans and documents) that demonstrates how an organisation will deliver on its commitment to address climate change.
- **Climate Change** – A long-term shift in global climate patterns predominately attributed to anthropogenic, or human-induced, greenhouse gas emissions.
- **Climate-First Process** – The process of mainstreaming climate change mitigation and/or adaptation into strategies and programmes. The result is mainstreaming climate change into strategies and programmes, i.e. viewed through a climate change lens.
- **Climate Risk Assessment** – An evaluation to understand the likelihood of future climate hazards and the potential impacts of these hazards.
- **Co-benefit** – Non-greenhouse gas-related benefits of climate actions e.g. provision of basic services, health, prosperity and other sustainable development agendas.
- **CO₂ Equivalent (CO₂e)** – The universal unit of measurement to indicate the global warming potential of each greenhouse gas.
- **Community** – A group that is bound together by a common interest, characteristic and/or place.
- **Decarbonisation** – Process of reducing greenhouse gas associated with energy consumption, industry, and transportation.
- **Energy efficiency retrofits** – Upgrading inefficient buildings, equipment, or appliances by replacing them with more efficient systems or appliances, insulation changes and envelope improvements to reduce heating and cooling demand.
- **Glide Path** – The 'glide path' is the estimated path towards the 2030 and 2050 target based on known emission reductions.
- **Just Transition** – A framework for social change that provides socially and economically just pathways for workers to transition away from carbon intensive employment.
- **Mitigation** – Any process of limiting greenhouse gas emissions.
- **Natural Capital Accounting** – Natural Capital Accounting is a tool to measure the changes in the stock of natural capital at a variety of scales and to integrate the value of ecosystem services into accounting and reporting systems.
- **Nature-Based Solutions** – The use of natural systems to address climate challenges; e.g. restoring wetlands in catchment areas to minimise the impact of flooding and runoff pollution.
- **Resilience** – The ability to anticipate, prepare for and respond to hazardous events, trends or disturbances related to climate.
- **Scope 1 Emissions** – Greenhouse gas emissions from sources located within the organisation.
- **Scope 2 Emissions** – Greenhouse gas emissions occurring because of the use of grid supplied electricity, heat, steam and/or cooling within the organisation.
- **Scope 3 Emissions** – Greenhouse gas emissions arising from business travel, employee commuting, waste disposal, leased assets, franchises, goods and services bought or sold and related distribution / transport.

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