Natural Environment Strategy
Net Zero Aberdeen

1. Purpose

1.1 How is the Natural Environment Strategy relevant to Net Zero Aberdeen?

This Strategy forms part of our city-wide approach to a Net Zero Aberdeen. It is required to address the urgent need to reduce our greenhouse gas (GHG) emissions, to reach the national and city targets of Net Zero by 2045 and thereby ending our contribution to climate change.

Natural environments play a significant role in global greenhouse gas cycles through the removal and storage of gases from the atmosphere. It is vital the Natural Environment is managed in a sensitively to avoid emissions from the land and nature.

2. Context

2.1 What is the context for the Natural Environment theme

Impacts climate change, arising from our emissions, are already evident in our natural environment, which is vital in supporting our economy, communities, and biodiversity. In addition to the significant loss of biodiversity, extreme weather events are becoming more frequent and severe affecting all sectors of society, for examples storms Frank, Arwen, Malik and Corrie. At the current trajectory of emissions, it is predicted we will see yet more changes.

Aberdeen covers an area of 185.7 km^2 and on 30th June 2019, National Registers of Scotland estimated it was home to 228,670 people. Many internationally, nationally, and locally protected areas fall within Aberdeen. Most prominently the River Dee Special Area of Conservation (SAC) is designated for its Atlantic salmon, freshwater pearl mussel, European otter and is frequented by Harbour porpoises and Bottlenose dolphins. As importantly, the city is also home to a diversity of green and open spaces for people and wildlife, whilst helping us adapt and mitigate to climate change and enriching people's wellbeing.

The City's Countryside Ranger Service manages 25 countryside sites across Aberdeen City where the priority is managing for biodiversity, education, and public access. These sites total more than 1,000 hectares and include a Site of Special Scientific Interest, four Local Nature Reserves, and 14 of Aberdeen's 45 Local Nature Conservation Sites.

Aberdeen City Council manages 350 hectares of woodlands and 1,450 hectares of parks and other greenspaces. Further extensive areas of land are managed for people and nature and other co-benefits by other public, private and community bodies and partnerships, including Forestry and Land Scotland, The River Dee Trust, the Woodland Trust and individual private land-owners.

In addition, Aberdeen benefits from one marine Special Protection Area extended into Aberdeen's coastal zone in December 2020. The coastline is increasingly frequented by marine mammals such as Minke and Humpback whales.

In addition to protecting designated areas, the amount of blue green infrastructure, including green walls, green roofs and rain gardens, within the built environment must be increased and enhanced to ensure a sustainable balance of Blue, Green and Grey is achieved and to halt urban crawl and the density of buildings, roads and hard infrastructure devoid of blue and green space. By working together across Aberdeen, we can meet the aspirations of both The Edinburgh Biodiversity Declaration and Glasgow Food and Climate Declaration.

In December 2020 the Scottish Government published the *Scottish Biodiversity Strategy post-2020: statement of intent* setting the direction for a new biodiversity strategy in Scotland that will respond to the increased urgency for action to tackle the twin challenges of biodiversity loss and climate change. This forms part of the Global Biodiversity Framework that will be taken forward to the Convention on Biological Diversity (COP-15) in China in 2022.

2.2 Key challenges for the Natural Environment theme

How do we:

1. **Provide information** on the nature crisis for all stakeholders to understand.
2. **Raising awareness** of the value the natural environment has for the health and wealth of our city and its people, now and in the future.
3. **Work in partnership** with all to protect and enhance our natural environment.
4. **Rebuild nature** we've lost to meet the targets of the UN post 2020 framework.
5. **Increase natural habitats** for the benefits they provide to people and nature.
6. **Enhance our urban greenery**, such as street trees, green roofs and walls, verges and reservations for the benefits they provide.
7. **Enhance our blue infrastructure** in and around Aberdeen to manage flooding, improve water quality and our marine ecosystems.
8. **Improve monitoring efforts** to ensure we're heading in the right direction.
9. **Secure the investment** to deliver the scale and pace of change needed.
10. **Lobby for changes** required beyond Aberdeen, e.g. government and agencies decisions and transboundary issues.

2.3 What is already happening

Aberdeen has an award-winning history of combining green into the grey, for example:

- Species interventions, such as red squirrel expansion and red kite re-introduction.
- Tree planting across the city to create new woodlands for people and wildlife.
- Co-ordinated control of invasive non-native species along our watercourses.
- Nature based flood alleviation schemes enhanced with amenity and active travel.
- Volunteering to enhance green spaces and nature sites across Aberdeen.

Aberdeen is home to global knowledge institutes and associated research, such as:

- Robert Gordon University – Schools of Public Health and Architecture / Built Environment with links to food, health and green infrastructure.
- University of Aberdeen – History of health, nature, forestry and geography, to name a few. Now also home to Rowett Institute linking food, agriculture and health.
- James Hutton Institute – Specialists on geology, soil, land use & agriculture.
- Scottish Rural College (SRUC) – Providing education and training on rural and agriculture matters.

Aberdeen benefits from partnerships focused on the natural environment, including:

- The North East Scotland Biological Records Centre (NESBReC), which manages and disseminates biological data for use in making nature and land-use decisions.
- The North East Scotland Biodiversity Partnership (NESBiP), a nationally valued focal point for regional nature conservation information and initiatives.
- The Dee Catchment Partnership of organisations with an interest in protecting, promoting and enhancing the River Dee and its species and habitats.

Aberdeen is a consistent winner of 'In Bloom' initiatives, showcasing communities playing central roles in the enhancement of Aberdeen's spaces and environments.

3. Strategic drivers

UK	Environment Bill (delayed) UK Climate Risk Assessment - current and future risks to biodiversity, specific risks for Scotland highlighted by Climate Change Committee The Economics of Biodiversity: The Dasgupta Review
Scotland	Wildlife and Countryside Act 1981 Town and Country Planning (Scotland) etc. Acts 1997 onwards Land Reform (Scotland) Act 2003 / Scottish Outdoor Access Code. Nature Conservation (Scotland) Act 2004 Wildlife & Natural Environment (Scotland) Act 2011 Community Empowerment (Scotland) Act 2015 Climate Ready Scotland: Adaptation Programme 2019 – 2024 EU Habitats, Birds & Water Framework Directives (Natura2000) Environmental Assessment (Scotland) Acts and Regulations 1999… Flood Risk Management (Scotland) Act 2009 Scottish Biodiversity Strategy – post 2020 statement of intent
Regional	Regional Land Use Partnerships Regional Marine Planning River Basin Management Plan North East Local Flood Risk Management Plan 2016-2022
Aberdeen	Local Outcome Improvement Plan 2016-2026 (refresh 2021) Aberdeen Adapts (2022) Open Space Strategy (2022)

Tree & Woodland Implementation Plan (draft)   Nature Conservation Plan   Local Development Plan and related policies, etc.

4. Approach

4.1 Overview

Strategic Aim: We will further protect and expand nature across Aberdeen, enhancing its integrity, managing it to contribute to an overall reduction in green house gas emissions, and reversing the nature decline for the multiple benefits these provide in ensuring our most basic societal and economic goods.

Key Outcomes	Strategic objectives	Measures
Reduction in green house gas emissions	Promote and facilitate collective action across Aberdeen to reverse the harm caused to nature	Citywide CO_2e emissions
Increase in biodiversity	Increase use of nature-based solutions in delivery of hard and soft infrastructure	Area of Aberdeen protected Area of Aberdeen managed for nature
Improved health and wellbeing	Empower stakeholders through communication, collaboration and action on climate and nature	% citizens who feel able to influence decisions Number of Friends of Groups

Natural environment specific measures and targets tend to be longer-term. Single species / habitats data cannot tell us about the quality of the overall environment but can on occasion act as proxies for it. Hence, useful measures attempt to capture the qualities of the wider blue / green environment, e.g. area of land protected.

4.2 About the approach

Reversing the harm

A collaborative city-wide approach between all sectors of society is essential if we are to reverse the harm to our Natural Environment. Specifically in relation to this Natural Environment Strategy, but also contributing to adaptation and synergies with other themes, nature-based solutions will form the basis of the mitigation required to reach our Net Zero target by 2045 and our contribution to the nations Nationally Determined Contributions (NDCs) under the Paris Agreement on Climate Change.

Nature Based Solutions

Nature based solutions are defined as actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges, (e.g., climate change, food and water security or natural disasters) effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits.

Empower stakeholders

Stakeholders will work together to share knowledge and inform ourselves, and the public about the value of, and the diverse and critically important roles the natural environment plays in the health and wealth of our city and its people, now and in the future. We shall communicate, collaborate and act to raise awareness, empowering stakeholders including the public and communities, to participate in the challenge we face to enhance and protect our natural environment in our just transition to Net Zero. As defined in the Empowerment Theme, we need to involve everyone in the decision-making process: we need more agile, iterative and responsive approaches that involve all the various communities in identifying and prioritising their needs and suitable solutions.

Areas of activity

- Explore opportunities to map areas suitable for installation and retrofit of blue green infrastructure, e.g. through partnership work on a Sustainable Growth agreement.
- Explore sites to create naturalised grasslands and wildflower meadows across multiple land ownerships.
- Increase biodiversity, contributing to carbon stores and carbon savings from a reduction in intensive grass cutting on land across the city.
- In line with Scottish Forestry Strategy 2019 – 2029, and to support long-term emission sequestration, expand the city's tree and woodland cover from 16% to 21% by 2032 with a diversity of species and styles of planting that are more resilient to climate change and disease.
- Sustainably manage the city's existing tree and woodland cover to ensure we have the right trees in the right place for the right purpose.
- Identify opportunities to enhance the connectivity of blue and green corridors for wildlife and active travel.
- Increase use of permeable surfaces, Sustainable Urban Drainage Systems, and swales in our built environment, green roofs, green walls, rain gardens.
- Ensure the incorporation of high quality blue green infrastructure in our 20-minute neighbourhoods and transport networks.
- In partnership with developers and other stakeholders, embed high quality green and blue infrastructure across the city through the planning process.
- Collaborate with partners such as North East Scotland Biological Records Centre to improve the quality and accessibility of local nature information data to inform decision making.

- Invest in the enhancement and improvement of blue/green spaces and biodiversity moving from traditional financial focus to nature and net zero being at the forefront of all investment and financial decisions.
- Support local food growing, including orchards, to encourage a healthy relationship to local food which is accessible to all, and which is both good for people and the planet.
- Ensure we have a diverse mix of greenspaces for people and wildlife evenly distributed across the city, as identified in the Local Outcome Improvement Plan and Open Space Strategy.
- Explore the opportunities and risks to our Natural Environment and Food systems from the production and use of biofuels and other emerging products.

5. Risks for this theme

Nature is coming under increasing and competing pressures from inappropriate land uses and from further exploitation for societal products, e.g. land grabs for carbon offsets. There's an increasing need to ensure the right type of land use in the right place so as not to exacerbate climate and nature crises, for example not planting forests on peat soils or even prime agricultural land and ensuring the sustainable use of nature products in our circular economy and energy transition, e.g. biofuels.

Following Brexit, the UK and Scottish Governments have their strongest opportunity to date to reconsider and put in place alternative nature policies, targets and land use subsidy schemes that act in favour of climate and nature, e.g. Biodiversity Net Gain. However, these remain to be meaningfully defined or achieved.

The continued reduction in revenue funding for public bodies, including environmental agencies, and the quick turnaround nature of capital funding opportunities presents further risks to securing outcomes associated with nature.

6. Theme synergies

Mobility	Design routes for people and nature; making walking and wheeling attractive with networks that encourage modal shift.
Buildings & Heat	Incorporating blue and green infrastructure, e.g. Sustainable Urban Drainage Systems, green walls, roofs and rain gardens.
Energy Supply	Sustainable use of land and nature as both potential fuel sources and emissions sinks.
Circular Economy	Local food growing, reducing food waste, composting and anaerobic digestion. Nature based products and packaging.
Empowerment	Climate and nature focus via public participation, collaboration and action in shaping policies and changing behaviours.