

# **North Ayrshire Nature Network**

## **2024 to 2045**



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## Introduction

The Global Climate Emergency and the Nature Emergency are twin reinforcing crises. Biodiversity loss increases climate change, and the changing climate contributes to biodiversity loss. The actions we take to address each are fundamental to our wellbeing and survival. It is only possible to tackle this crisis by working to halt climate change and biodiversity loss simultaneously.

The Scottish Government's Scottish Biodiversity Strategy to 2045 states that local authorities will deliver a Scotland wide Nature Network. Local authorities will be responsible for delivering a Nature Network in their own area. In response, North Ayrshire Council will deliver the North Ayrshire Nature Network (NANN). The delivery will involve considerable community buy in, partnership working and interdepartmental cooperation. The intention of this document is to be a single document be a single document to set out:

- An explanation of what Nature Networks are and what they will deliver.
- The national and local policy context
- A methodology for developing a Nature Network for North Ayrshire, following the NatureScot Nature Network delivery guidance.
- An action plan for the implementation and delivery of the NANN.

## Background

Biodiversity is an abbreviated term for “biological diversity” and includes all our species, habitats and ecosystems. All life on earth, including our economy, is linked to ecosystem services in numerous ways. These include photosynthesis, soil formation, nutrient and water cycling, fresh water, food, fuel, timber, fibre, and pharmaceuticals, flood management, pollination, carbon sequestration, erosion reduction, regulation of regional and local climate, air purification, water filtration, pest control, as well as the non-material benefits we obtain from the environment such as recreation, tourism and improved health and wellbeing through the fulfilment that nature experiences can bring.

However, there is strong evidence of the scale and nature of a biodiversity crisis. The natural environment is being degraded across much of our land and seascapes. Scotland now has half the biodiversity it used to have.

## Biodiversity loss in Scotland has direct and indirect drivers

The direct drivers continue to cause biodiversity loss at unprecedented rates. Climate change will continue to impact on biodiversity in Scotland for decades to come. The biggest direct driver of biodiversity loss is the way in which people use the land and sea. How we grow food, harvest materials, and build towns and cities all has an impact on the natural environment.

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Another direct driver is the negative impact from the direct exploitation of organisms. In Scotland this has taken the form of overfishing and the felling of native woodlands. Pollution in Scotland has reached all types of ecosystems, even those in remote areas. Pollution comes in many forms, for example nitrogen and ammonia caused by intense agriculture, to microplastics found in our soils and seas.

Invasive non-native species are species that have been brought to our country by human activity. When they arrive, they out-compete local biodiversity for resources such as sunlight and water. This causes the native species to die out causing a shift in the makeup of the natural ecosystem. Some examples of invasive species not native to Scotland are Japanese knotweed, Himalayan balsam, and the American mink.

Indirect drivers are the underlying causes of the direct drivers of biodiversity loss. Research has shown the main underlying cause is the disconnection of people and nature. This disconnection results in a lack of recognition for the value and importance of nature. If people do not feel connected to nature, they are more likely to over-exploit it. They will not take seriously the impacts of climate change, pollution, and invasive non-native species.

NatureScot (Scotland's nature agency) published a research report classifying the indirect drivers of biodiversity loss under five headings:

1. Socio-cultural
2. Demographic
3. Economic
4. Political, institutional and governance
5. Technological

It is vital that direct and indirect drivers of biodiversity loss are addressed. In doing so we will stop the biodiversity crisis worsening. But only a proportion of species and habitats will regenerate on their own. The others will need substantial restoration efforts.

The implementation of a range of Scottish policies has started to try and address these indirect drivers. These include:

- implementing the United Nation's Sustainable Development Goals through the National Performance Framework,
- joining the Wellbeing Economy Alliance,
- establishing the Just Transition Commission
- publication of both the National Strategy for Economic Transformation and the Environment Strategy.

### **Proactive or reactive changes**

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The Stern review on the Economics of Climate Change shows that the costs of inaction on climate change substantially outweigh the costs of action. The biodiversity crisis needs to be viewed in the same way.

Figure 1 below shows the Scottish Government's 'vision' infographic; a timeline from 1970 to 2045. This shows biodiversity (examples of flora and fauna) declining and regenerating by 2045. The timeline begins with images of the exploitation of land and sea in the 1970's.

Figure 1. A Nature Positive Scotland by 2030



As the timeline progresses it shows a decline in biodiversity. From 2030 to 2045, the image shows restoration of biodiversity on land and sea through taking the right action. The image includes the draft Scottish Biodiversity Strategy vision text. "By 2045, Scotland will have restored and regenerated biodiversity across our land, freshwater, and seas. Our natural environment, our habitats, ecosystems, and species, will be diverse, thriving, resilient and adapting to climate change."

COP15 stated that there is a connection between biodiversity loss and climate change. It recognised the important role of local government in addressing the nature crisis. This gave effect to the [Edinburgh Declaration](#), recognising the importance of "subnational governments, cities and local authorities" in delivering

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effective biodiversity and climate change action. In response the [Scottish Government](#) has published the draft Scottish Biodiversity Strategy to 2045: tackling the nature emergency.

The goals for the strategy are ambitious. They have set a target for halting biodiversity loss by 2030 and being nature positive by 2045. The draft strategy's vision is set out as:

- By 2045, Scotland will have restored and regenerated biodiversity across our land, freshwater, and seas.
- Our natural environment, our habitats, ecosystems, and species, will be diverse, thriving, resilient and adapting to climate change.
- Regenerated biodiversity will drive a sustainable economy and support thriving communities, and people will play their part in the stewardship of nature for future generations.

There are twenty-six priority actions set out in the proposed 5-year Delivery Plan. Work is already in progress across Scotland to restore and regenerate ecosystems and habitats however, urgent action is needed to accelerate and expand the scale of our efforts. The three priority actions which will have the most immediate effect are:

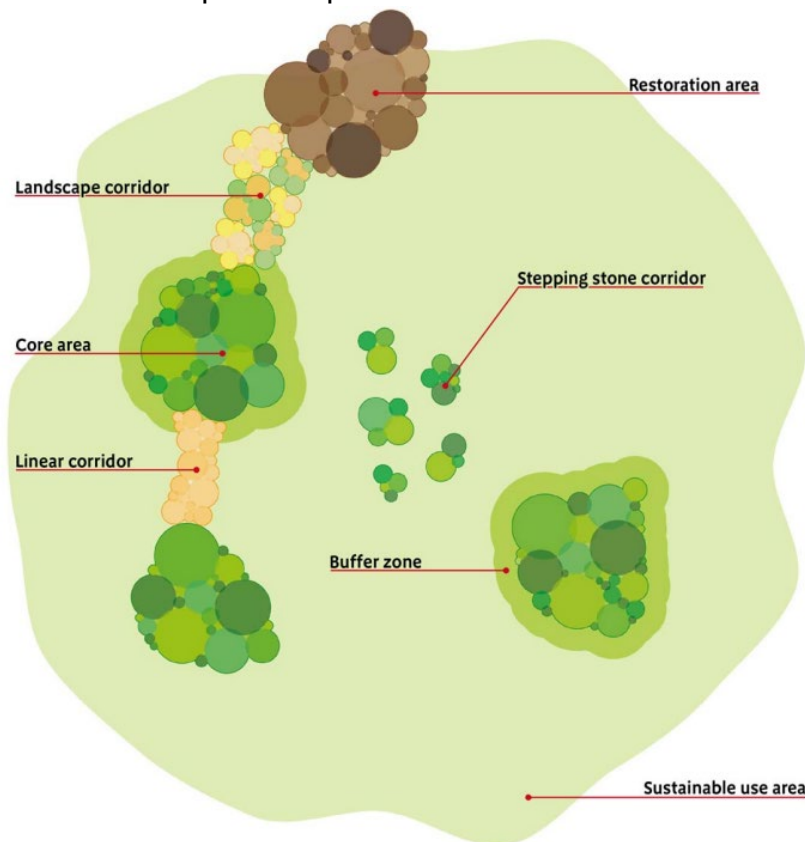
- The introduction of statutory nature restoration targets.
- The introduction of a programme of ecosystem restoration.
- The increase and safeguarding of space for coastal habitat change.

Nature Networks are highlighted as key for the Scottish Government to deliver the Biodiversity Strategy to 2045. Nature Networks are to be one of the principal tools for Scottish local authorities to deliver on biodiversity and climate change action. Together with the introduction of statutory nature restoration targets from the forthcoming Natural Environment Bill, the Council will be expected to deliver a "measurable increase in urban biodiversity."

### **What are Nature Networks?**

A Nature Network is a network that connects nature-rich sites, restoration areas, and other environmental projects through a series of areas of suitable habitat, habitat corridors and stepping-stones. Figure 2 below identifies the components of a Nature Network.

Figure 2. Lawton Report components of a theoretical Nature Network



**Core areas**, often called ‘**patches**,’ are areas of high nature conservation value which form the heart of the network. They can provide high quality habitat for a specific species or a group of species. Isolated patches can support a limited population of a species. Their small size makes them unlikely to guarantee species survival. A single catastrophic event, such as a fire or new predator, could wipe out the entire population in a core area.

**Corridors and ‘stepping stones’** are spaces that improve the functional connectivity between core areas, enabling species to move between them to feed, disperse, migrate or reproduce. Although the term implies the two areas of habitat have a physical connection; to be a network this does not have to be the case. Separate areas of habitat can have functional connectivity rather than structural connectivity.

**Restoration areas** are areas where measures are planned to restore or create new high value areas so that ecological functions and species populations can be restored.

**Buffer zones** are areas that closely surround core areas, restoration areas, ‘stepping stones’ and ecological corridors, and protect them from adverse impacts from the wider environment.

**Sustainable use areas** are areas within the wider landscape focussed on the sustainable use of natural resources and appropriate economic activities, together with the maintenance of ecosystem services.

### **Matrix**

The matrix is all the outer land that surrounds the core areas. It may be any kind of land use, including urban development and agriculture. An animal or plant moving from one core area to another must pass through this matrix. Different land uses are easier for different species to move through. A badger would find it more difficult to pass through a town than a farm. The use of the right management makes the matrix of land use easier for species to cross. The same management can also have social and economic benefits. An area improved for wildlife can also have a higher public amenity value.

### **Movement routes**

These are areas that allow plants and animals to move from one area to another.

A movement route may be:

- a connecting area of variable shape
- linear patches of habitat, like a corridor
- a series of 'stepping stones' of habitat patches – which species can use to 'jump' from one area to another.
- a particularly permeable part of the matrix – which plants and animals can move through more easily.

### **The connections**

Patches of habitat form a network if they're connected structurally or functionally. The most suitable type of connection will vary by species.

Connectivity can also apply to people. In a green network people must be able to move between different areas of greenspace. The permeability of a matrix can vary among people as it can with biodiversity. A footbridge with steps will be impermeable to a wheelchair user or person with a heavy pram.

### **Structural connectivity**

A structurally connected landscape has physically linked core areas of similar habitat types. Structural connectivity can be seen on a map or aerial photo as a block of habitat. But it takes the structural connection of patches to create a network. To make a network species must be comfortable with, and capable of, moving between the patches.

Difficulties may arise if the linking area:



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- is too small for an animal to feel safe passing along it
- receives too much direct sunlight for some plant species to thrive there.

### **Functional connectivity**

A functionally connected landscape has core areas of habitat that species can move between even though they aren't physically joined. For example, an animal may be able to move through an area of suitably managed matrix, meaning that the habitat patches are connected in practice for that specific species. Computer modelling is often used to assess functional connectivity, as it usually won't appear as a network on a map or aerial photo. Sometimes species can move between core areas of a landscape not physically joined. The movement of species happens through the proper management of the landscape between. This is a functional connection.

As well as supporting regional and national approaches to protect and restore nature, nature networks provide local benefits to wildlife and people. In their creation nature networks will help to improve Scotland's biodiversity and defend against the climate crisis. They will help preserve the integrity of ecosystems, provide safe havens to help wildlife move as it adapts to climate change, and help improve access to nature for people.

Nature Networks are a key component in tackling the nature and climate emergency. These networks will deliver increased ecological connectivity and restoration across Scotland.

### **Types of networks**

Connectivity not only improves biodiversity, but it also makes it more resilient to climate change. Climate change forces species to move to areas with a climate that suits them better. Habitat connectivity eases the movement of species.

To deliver a Nature Network we need to understand existing habitat connectivity. Mapping the habitat is the best way of getting to grips with the existing connectivity. This allows us to prioritise areas for action and to expand an existing network, improve management or increase connectivity.

### **Green Networks**

A green network must deliver social and economic benefits alongside environmental improvements.

Developing a green network could involve:

- improving health and wellbeing of people by providing paths and creating open space.
- reducing flood risk by establishing land to act as sustainable urban drainage systems (SUDS)

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Green Networks help to improve the economic status of an area. They make areas a more attractive place to live and work. Activities involved in developing a green network can reduce habitat fragmentation. They deliver a broader range of benefits for both people and wildlife than a simple habitat network.

### **Integrated habitat networks**

An integrated habitat network combines the needs of different habitats and species. [Glasgow and Clyde Valley Green Network](#) partnership is an example of an integrated habitat network. It covers a mix of habitats, for example:

- unimproved grassland
- floodplain wetland
- woodland
- raised bog.

### **Habitat networks and climate change**

If climate change forces species to shift their range, habitat connectivity may enable movement to a more suitable core area.

North Ayrshire will experience the effects of climate change. What the extent of these climatic changes will be is still unknown. What we do know is that humans and wildlife will need to adapt to our changing climate.

As the climate changes many species in Scotland will begin to move northwards. Species will disappear from North Ayrshire and new species take their place. Without a habitat network it will be more difficult for species to find new suitable habitat.

### **Shifting climate envelopes**

Each species has its own 'climate envelope' or 'climate space'. These are a range of climatic conditions that suit it and an area where these conditions occur. As the climate changes, climate envelopes will move, and many species will need to move with them.

Some species will find that the climate in their area changes such that it no longer suits them. It might become too hot, too wet, or too dry, or a mixture of these factors. Such species will either need to adapt to the new climate or move in search of a climate that suits them better.

Species with a low dispersal ability may be unable to move fast enough to keep pace with climate change. Other plants and animals may be able to disperse but will still have to move through land that surrounds their core areas. Small, isolated habitat patches surrounded by an impermeable matrix will make dispersal impossible. The species in these isolated habitats will not survive.

## How habitat networks can help

Habitat networks link together separate patches of habitat. These can provide away for some species to follow their shifting climate envelope. This is important in the face of climate change. Many species must migrate, adapt, or die. The creation of a nature network will be a key part in North Ayrshire Councils climate change response.

## Nature Networks and communities

A Nature Network is not just structural and functional connections for nature in the landscape. It also can help a connection between local people and their environment. North Ayrshires natural heritage is part of the identity of its people. Connecting people with their local environment helps develop that sense of place and belonging.

Connecting people with their own natural heritage creates a sense of pride and agency to help conserve it. In turn protecting and conserving nature provide co-benefits to communities and public health and wellbeing. Nature Network co-benefits include the provision of high quality green and blue spaces for health and recreation, active travel networks and sustainable local food production. The NANN will deliver many benefits to society.

## Policy Context

World leaders and local governments are responding to the call to act on the nature emergency, which has led to a number of international, national and local policies to be put in place. Some of these key drivers are listed below:

### International Policy

- **Convention on Biological Diversity**  
Signed by 150 government leaders at the 1992 Rio Earth Summit, the Convention is dedicated to promoting sustainable development. It recognises that biological diversity is about more than plants, animals and microorganisms and their ecosystems; it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment. One of the key actions is to integrate all protected areas into the wider landscape.
- **UN Plan of Implementation of the World Summit on Sustainable Development** The 2002 Earth Summit in Johannesburg agreed to promote the development of national and regional ecological networks and corridors. The Intergovernmental Panel on Climate Change's Climate Change 2001 report recommends that a network of habitats and habitat corridors will be required to facilitate migration through the landscape.
- **EU The Water Framework Directive**

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Requires Member States to plan and act on a larger scale than individual sites. The Directive requires that the Scottish Environment Protection Agency plan on a whole catchment scale to bring bodies of water up to the required ecological status which may also improve habitat networks.

- **EU Biodiversity Strategy**  
Proposes the creation of a Trans-European Nature Network. The NANN would join with the nature networks in neighbouring councils. These would create integrated ecological corridors. These corridors will eventually link up to form part of the Trans-European Nature Network.
- **EU Habitats Directive**  
Aims to improve the 'ecological coherence' of Special Areas of Conservation. This involves actions within a site and often around its designated area. These are to ensure favourable conditions for species and habitats in the long term.
- **EU Birds Directive**  
Requires conservation action to be undertaken both within and outside Special Protection Areas.

## National Policy

- **Conservation Regulations 1994**  
Transposed from the EU Habitats Directive into UK law, states that "for the purposes of the [Town and Country Planning Acts], policies in respect of the conservation of the natural beauty and amenity of the land shall be taken to include policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna."
- **Nature Conservation (Scotland) Act 2004**  
Places a specific 'biodiversity duty' on all public bodies to further the conservation of biodiversity, stating that "It is the duty of every public body and office holder, in exercising any functions, to further the conservation of biodiversity so far as it is consistent with the proper exercise of those functions".  
It is likely that Biodiversity Duty Report will be the method the Council will use for reporting on its delivery of the NANN and the Councils wider new biodiversity commitments under the Natural Environment Bill.
- **Natural Environment Bill**  
Will set legally binding nature restoration targets at land and sea and set a framework for monitoring and enforcing targets which are seen as essential for accountability in tackling the nature emergency. These targets are seen as "absolutely vital" to drive cross government and cross sector action to reverse nature loss, much in the way that we have seen net zero targets drive action on climate change.
- **Scottish Planning Policy (2014)**  
States that the planning system should seek benefits for biodiversity from new development where possible, including the restoration of degraded habitats and the avoidance of further fragmentation or isolation of habitats.

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(The third National Planning Framework, NPF3, and Scottish Planning Policy are now replaced by the fourth National Planning Framework, NPF4.

- **National Planning Framework, NPF4**  
Acknowledges the links between climate change and the biodiversity crisis. The policy will respond to the crisis while promoting equality with social and economic development, and aims to "protect biodiversity, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks".
- **Scottish Biodiversity Strategy to 2045**  
A public consultation exercise was undertaken by Scottish Government in late 2023, seeking feedback on the draft strategy, 5-year delivery plan and proposed Nature Environment Bill. The goals for the strategy are a 2030 milestone of halting biodiversity loss and being Nature Positive by 2045.
- **'30 by 30'**

In 2020, the Scottish Government committed to protect 30% of Scotland's land for nature by 2030. This reflects the new global target to protect 30% of the planet's land and sea by 2030 and is seen as a major opportunity to create more protected areas, and improve the protected sites we already have, ensuring they are bigger, better, and more connected.

- **Climate Change Plan**  
A new Climate Change Plan is being developed by the Scottish Government. It must embed policies across all areas to reduce emissions and meet Scotland's 2030 and 2045 targets. This includes transport, climate and nature friendly farming, restoration of Scotland's peatlands and energy efficiency.
- **Scottish Forestry Strategy**  
One aim is to "promote a landscape-scale approach to habitat networks". The national strategy feeds into regional forestry strategies and implementation plans.
- **Agriculture and Rural Communities (Scotland) Bill**  
The Scottish Government introduced the Bill intended to support farming, forestry, and rural communities. This Bill gives Scottish Ministers the powers to develop a new support framework, following the exit from the EU. This Bill is intended to transition Scotland to nature and climate friendly farming methods. It also aims to protect and improve the management of woodlands and forests.
- **Environmental Assessment legislation**  
The Environmental Impact Assessment (Scotland) Regulations 1999 and the Environmental Assessment (Scotland) Act 2005 require anyone who carries out such assessments to consider impacts on biodiversity, flora, and fauna.
- **Curriculum For Excellence**  
The Council will be required to ensure that the educational aims of Scotland's Biodiversity Strategy are fully integrated into the delivery of the Curriculum for Excellence. Full development of this connection will help children and young people gain the knowledge, skills and attributes needed for life in the 21st century through developing their connection with the natural world.

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- **Local Development Plan (LDP)**

LDPs should promote nature recovery and nature restoration across the development plan area, including by facilitating the creation of nature networks and strengthening connections between them to support improved ecological connectivity; restoring degraded habitats or creating new habitats; and incorporating measures to increase biodiversity, including populations of priority species

## Local Policy

- **North Ayrshire Council Plan 2023 to 2038**

The Council Plan sets out North Ayrshire Council's commitment to deliver on its communities' priorities over a five-year period. These priorities have been identified as, Wellbeing, Communities and Local Democracy, Climate Change and A Sustainable Council. The NANN Strategy supports delivery of each of these priorities.

- **Sustainable North Ayrshire Strategy (SNA) 2024 to 2027**

The SNA Strategy sets out the Council's journey through implementation of nine strategic priorities, specific project actions and a Carbon Footprint and Project Register. The aim of the strategy is to achieve net-zero emissions by 2030, and to halt biodiversity loss and be nature positive by 2030.

- **North Ayrshire Local Biodiversity Action Plan (NALBAP) 2019 to 2031**

The primary vehicle intended for delivering biodiversity enhancement in North Ayrshire. The aims of the NALBAP are to protect and restore biodiversity, connect people with the natural world, and maximise the benefits of a diverse natural environment.

- **Local Outcome Improvement Plan (LOIP)**

The delivery of the NANN supports the strategic themes of the LOIP, World, Wellbeing and Communities and Local Democracy.

- **North Ayrshire Open Space Strategy (2016 to 2026)**

This strategy holds the priority biodiversity actions for greenspace. The biodiversity aims of the Open Space Strategy are expressed through two strategic objectives:

1. Open Space will be promoted as a resource for tourism and recreation, economic development & biodiversity.
2. Respond to climate change through the delivery of a connected and integrated network, incorporating water management, woodland area, and biodiversity benefits

- **Local Development Plan 2 (LDP2)**

Development is recognised as a fundamental driver of net biodiversity loss. LDP2 has had a key role to play delivering the Councils biodiversity commitments.

- **Local Development Plan 3 (LDP3)**

Responding to the global biodiversity crisis, Scotland's national spatial strategy – National Planning Framework (NPF) 4 – puts nature recovery at the heart of

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planning for future places. Significant weight is given to the nature crisis to ensure that it is recognised as a priority in all plans and decisions, including North Ayrshire's third local development plan (LDP3) and planning applications determined by the Council.

- **Ayrshire and Arran Forestry Plan**

The Council is responsible for over 275 ha of woodland. The priorities within the plan related to biodiversity encourage the positive management of existing farm woodlands to provide a range of local economic and environmental benefits.

## Delivering a North Ayrshire Nature Network

Nature Networks use a clear rationale. This rationale has the potential to contribute landscapes and biodiversity conservation. Nature Networks are cost-effective tools for enhancing landscapes.

Networks also offer the chance to work towards multiple Council policy goals. The Scottish Government expect that the nature network will be one the key elements in this, however a nature network cannot deliver on its own or in isolation of other council policy delivery. For the Nature Network to be successfully delivered it will need to be integrated across all North Ayrshire Council policy.

It is important to acknowledge the difficulty of the task that is to be undertaken. The Council has been set the target for halting biodiversity loss by 2030 and being nature positive by 2045.

The task at hand will be to draw a line in the sand at 2024 biodiversity levels. The Council will be required to meet legally binding biodiversity targets, based on a 2024 biodiversity baseline. These targets will be met through reporting "demonstrable gains in biodiversity". By 2030 the Council will need to be able to prove that biodiversity in North Ayrshire is holding at 2024 levels. As biodiversity in North Ayrshire is declining year on year, the Council will need to deliver net gain each year to maintain 2024 levels. In the event of meeting the 2030 target the Council will then need to deliver year on year net gain until 2045.

There will be many ways of delivering nature networks across Scotland. The Council will deliver the nature network best suited to North Ayrshire, by using local knowledge and paying attention to local ecological conditions. This vision for the NANN, made using the Scottish Government's best practice guidance will:

- be delivered from the bottom up. It will address local needs and objectives. In doing so they will support national outcomes for nature and people
- will connect local people and communities to nearby important areas for nature. It will deliver local priorities and deliver connectivity at the local level. This connectivity will enhance existing initiatives such as active travel routes
- will build on connections at the local level. It will create opportunities to deliver strategic nature connectivity. This connectivity will help connect nature across the

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region. By doing so it will support national objectives and priorities. The network will cross administrative boundaries. This will ensure connectivity between landscapes, larger-scale features, and areas of importance.

- will be delivered at the local scale and support local priorities, such as those identified through the NALBAP
- will also join with neighbouring Nature Networks to deliver a network that spans Scotland, supporting national and regional conservation objectives and priorities. These regional networks enable the connection of neighbouring networks. This will increase the ability for species to disperse. This dispersal will strengthen species populations and improving their resilience to pressures.

### Methodology

NatureScot have created a Nature Networks Toolbox. This toolbox is a 'live' resource for local authorities, partnerships, organisations, and groups. It has been established to help the design and implementation of Nature Networks. The Toolbox is intended to evolve over time, with input from target users. This will provide the information leading to practical implementation activities. The Council will explore the use of the Nature Networks Toolbox to the fullest in its delivery of the NANN.

Utilising information gathered from Scottish Government and engagement with NatureScot, the proposed methodology in Table 1 (Methodology) identifies seven key stages of developing the North Ayrshire Nature Network.



Step 1: Evidence gathering to develop an initial vision for the NANN.	Step 2: Identify and involve stakeholders in refining the vision.	Step 3: Prepare final vision.	Step 4: Develop a project team for the delivery of nature network vision.	Step 5: Building the Nature Network	Step 6: Implement the plans.	Step 7: Undertake monitoring to allow evaluation of nature network.
<p>1. Identify baseline and assess what aspects of nature are special or have been degraded or become threatened.</p> <p>a. Landscape character &amp; beauty</p> <p>b. Geology &amp; soils</p> <p>c. Natural processes (e.g., hydrological, geomorphological)</p> <p>d. Biodiversity</p> <p>I. Identify existing and potential core sites for biodiversity.</p> <p>II. Identify opportunities for expansion and joining up existing areas and for improving their natural functioning.</p> <p>III. Review matrix (land between core sites)</p> <p>o Identify important species and habitats.</p> <p>o Identify opportunities to improve connectivity.</p> <p>e. Ecosystem services</p> <p>f. Historical environment</p> <p>g. Socio-cultural context (e.g., traditions, affluence, lifestyles etc.)</p> <p>2. Assess what aspects of nature could be restored or created in North Ayrshire. Consider current and potential national importance.</p>	<p>1. Develop a NANN stakeholder map based on North Ayrshire's land ownership and ecosystem service provision and usage.</p> <p>2. Develop a NANN stakeholder map based on North Ayrshire communities and interested parties.</p> <p>3. Hold workshops, both internal and external to review the initial vision and to refine it.</p> <p>4. Identify opportunities for:</p> <p>a. ecosystem restoration and habitat creation</p> <p>b. restoring natural processes</p> <p>c. new and enhanced ecosystem service provision.</p> <p>5. Use participatory approaches to engage with the wider community to encourage support and to refine the vision further.</p>	<p>1. Agree ultimate goals for NANN. Many of these are already prescribed by NatureScot:</p> <p>a. Biodiversity</p> <p>b. Natural capital</p> <p>c. Ecosystem service</p> <p>d. Landscape character and cultural heritage</p> <p>e. Other societal goals, such as access to the countryside.</p> <p>2. Agree constraints and opportunities of NANN.</p> <p>a. Ecological issues e.g., soil types, likely climate change impacts, natural processes</p> <p>b. Landscape issues e.g., cultural expectations</p> <p>c. Cultural issues e.g., population make-up</p> <p>3. Agree areas of uncertainty including aspects requiring a search for compromise.</p> <p>4. Agree size of area over which NANN will be designed.</p> <p>5. Identify links to wider networks</p>	<p>1. Develop an organisational and governance structure following NatureScot guidance</p> <p>2. Identify leads (teams) for each key aspect of the project.</p> <p>3. Teams to develop aims and objectives for their component of the project.</p> <p>4. Project teams work together to ensure an overall integrated plan.</p> <p>5. Implement plans</p> <p>Start immediately but consider medium and long-term.</p>	<p>1. Build resilience</p> <p>a. What are the pressures in North Ayrshire?</p> <p>b. Think about social resilience.</p> <p>2. Design NANN using the suite of rules of thumb:</p> <p>a. Make sites better.</p> <p>I. Big enough, complex, messy, dynamic</p> <p>II. Enhance natural processes.</p> <p>b. Develop buffers where possible.</p> <p>c. Make sites bigger.</p> <p>d. Create new sites.</p> <p>e. Improve connectivity.</p> <p>f. Improve quality of resources for wildlife in the wider countryside.</p> <p>.</p>	<p>1. Work with the planning system</p> <p>a. National Planning Policy Framework 4</p> <p>b. Net Gain</p> <p>c. Green Infrastructure</p> <p>2. Working with farmers and landowners</p> <p>a. Use of Agri-environment schemes where practicable</p> <p>b. Benefits of farm clusters</p> <p>3. Detailed ecosystem management</p> <p>a. Tailored to improving and using natural processes, working towards rewilding where appropriate.</p> <p>b. Tailored to specific habitats.</p>	<p>1. Develop a programme to monitor progress that considers local and national objectives.</p> <p>2. Refine implementation plan as it progresses in the light of evaluation (adaptive management) .</p> <p>3. Undertake management interventions scientifically to grow the evidence base.</p>

Step 1: Evidence gathering to develop an initial vision for the NANN.	Step 2: Identify and involve stakeholders in refining the vision.	Step 3: Prepare final vision.	Step 4: Develop a project team for the delivery of nature network vision.	Step 5: Building the Nature Network	Step 6: Implement the plans.	Step 7: Undertake monitoring to allow evaluation of nature network.
3. What opportunities are there for new or enhanced ecosystem service provision in North Ayrshire.  4. Think in a network way rather than about individual sites.		6. Develop a suite of targets against which progress can be assessed.				

Table 1: Methodology

## **Education and connection to nature**

The NANN is intended to be the key vehicle for tackling the disconnection between people and nature in North Ayrshire. To achieve this the Council must engage everyone. This includes individuals, organizations, and businesses of all sizes. The goal is to deepen our connection with nature and encourage sustainable practices.

Learning for Sustainability will be a key pathway for facilitating the engagement of the Curriculum for Excellence with the NANN. Using locally targeted nature-based learning the Council will deliver on the mainstreaming of the climate and nature crisis and the levels of stakeholder nature connectedness required.

## **Consultation**

Co-design is a design-led process that uses creative and participatory methods. In this context, it is when an organisation and stakeholders work together to design or rethink a service, policy, or project.

By using a co-design approach, the Council will look to identify and address challenges around the NANN collaboratively. The Council will do this by working with stakeholders in the private, public, voluntary sector, and citizens. The core objective of co-design is to move away from consulting with stakeholders to co-creating services and policies with them.

## **Communications Plan**

The delivery of the NANN will involve the communication of consistent messaging over the long term. The NANN needs to be readily identifiable, which will require the development of branding and a communication strategy. The message will convey:

- The purpose, value, and role the NANN plays in the Scotland wide Nature Network.
- The context of the NANN in the wider context of Scotland's biodiversity, climate, and people.

Communications on the NANN will highlight links to nature-based solutions and climate action, complementing the Make Space for Nature and Let's Do Net Zero campaigns.

## **Knowledge and skills**

NatureScot has identified that local authorities may lack the expertise, knowledge, skills, and resources in ecology. They also identified a possible lack in the resources or ability to engage with communities in key delivery partners, such as local authorities and contractors.

Successful delivery of the NANN will depend on combining evidence and data with local knowledge and expertise. In creating the NANN, the Council will need to

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harness the experience gained from previous work on improving connectivity. Not only in linking areas important for biodiversity but also linking local communities and their biodiversity.

### **Action Plan**

During the development of the first North Ayrshire Nature Network, and beyond, there are a number of activities to be undertaken to engage with stakeholders and Scottish Government. These activities have been summarised in an action plan, as seen in Appendix 1.

### **Governance**

Progress on the development and implementation of the North Ayrshire Nature Network will be reported to the Scottish Government through NatureScot.

It is anticipated that in the future, the Biodiversity Duty will be the primary reporting method on implementation of Nature Networks to Scottish Government.

The North Ayrshire Biodiversity Partnership is open to all stakeholders who have an interest in biodiversity across North Ayrshire. They will be integral to the development of the NANN, and updates will be provided at each quarterly meeting.

The Council's Climate Change Steering Group (CCSG) comprises a range of representatives from the Council, wider public sector partners and local businesses. The CCSG will receive updates on the North Ayrshire Nature Network implementation regularly.

In addition, reporting on performance will be updated through the Council's corporate performance system quarterly, alongside as part of the six-monthly Council Plan updates.

## Appendix 1: Action Plan

What we will do	How we will do it	When we will do it by	Lead Service
Take part the national and regional structures developed by NatureScot	Report on the progress of delivering NANN Submit case studies to be uses in the Scottish Nature Network Toolbox	Reporting will be as required by NatureScot	Sustainability
The Council is the principal organisation in the delivery of NANN. We will develop officer buy in by undertaking an internal stakeholder consultation.	These internal consultations will involve:  Nature Network online Awareness Sessions  Nature Network Community Workshops	2025	Sustainability
Develop a clear and consistent message on NANN.	The message will convey:  The purpose, value, and role North Ayrshire areas play in the wider network.  The context of NANN in the wider context of Scotland's biodiversity, climate, and people.	2025	Sustainability
Engage with the national steering group directly through active participation and indirectly through COSLA.	Participation in steering group engagement and supporting COSLA action.	On going across the projected lifetime of NANN - 2045	Sustainability
The Council will spatially identify NANN. This will involve identifying important areas for nature and settlements. These will be incorporated into NANN.	Incorporate the special identification of NANN into the development of LDP3	2027	Sustainability/ Local Plan Team
Organise NANN Launch event/s	Launch events to be held in each locality  Run a yearly NANN celebration week across all localities	2025 to 2045	Sustainability/ Communications/ to be confirmed

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What we will do	How we will do it	When we will do it by	Lead Service
The Council will engage with its Regional Land Use Partners, NatureScot and others.	The Council will use all available tools at its disposal to fully engage with the full range of potential NANN partners.	On going across the projected lifetime of NANN - 2045	Sustainability/ To be confirmed
Run a community consultation intended to make NANN locally designed and delivered. We will do this through place-based engagement identifying local challenges and needs. We will work to create a sense of ownership of the Nature Network in local communities.	Workshops in North Ayrshire communities  Discover: explore the problem or challenge, building understanding amongst participants  Define: clearly define the challenge  Develop: explore and develop multiple potential solutions  Deliver: select a single solution(s) and prepare for implementation	2025	Sustainability/ to be confirmed
Create a Local Nature Network Group	The Local Nature Network Group will be led by the Council and will be responsible for the design of NANN. It will bring together local actors, empowering them to deliver the network. The Group will also provide feedback to the regional and national groups.  The Local Nature Network Group will be facilitated through the North Ayrshire Biodiversity Partnership.  Bottom-up delivery guided by top-down facilitation.	2024	Sustainability
Integrate the governance of the NANN, and feed into, the governance structure as outlined within Scotland's Biodiversity Strategy 2022 to 2045.	The Council will review the governance process of the NANN on a yearly basis in partnership with the Local Biodiversity Partnership.	On going across the projected lifetime of NANN - 2045	Sustainability
Ensure that communications on the NANN will highlight links to nature-based solutions and climate action, complementing the Make Space for Nature and Let's Do Net Zero campaigns.	Develop a NANN communications strategy  Issue regular NANN communication updates across all Council communication methods and channels	On going across the projected lifetime of NANN - 2045	Sustainability/Communications
Work with NatureScot to review the councils land holdings, in line with their Biodiversity Duty. The process will identify areas that could support the delivery of Nature Networks.	Continue to promote awareness of the Biodiversity Duty with Council Officers	2025	Sustainability/

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What we will do	How we will do it	When we will do it by	Lead Service
	<p>Develop a suitable audit process for the Council land holdings</p> <p>Produce an action plan that identifies the areas that could support NANN, and the actions required to make this happen.</p>		Property Management and Investment
Carry out an internal audit to identify the existing skills, knowledge, and resources within North Ayrshire. Having identified them they will need to be incorporate in the process.	Continue to improve Nature Network linkages with NPF4 policy guidance such as the Developing with Nature Guidance.	2026	Sustainability
Engage with the Scottish LBAP Officers Network sharing knowledge, resources, and skills with other LAs.	The Council will attend the quarterly LBAP Officers Network	On going across the projected lifetime of NANN - 2045	Sustainability
Ensure that the NANN provides opportunities for education and green skills development. The Council will use the NANN as a springboard to grow North Ayrshires green economy and delivering economic growth.	<p>The Council will:</p> <p>Ensure that biodiversity as a concept will be understood and valued across the population and embedded in educational curriculums.</p> <p>Provide direction on, and investment in, green skills and local economic opportunities supporting nature-based education, skills, and volunteering.</p> <p>Systematically mainstream biodiversity across sectors and the wider policy landscape (e.g. energy, housing, industry, education, health, and transport)</p> <p>Maintain and seek investment in nature restoration through the Nature Restoration Fund.</p> <p>Develop a Biodiversity Investment Plan to set out how the Council will address the Finance Gap for nature.</p> <p>Engage with the Scottish Governments values-led, high-integrity market for responsible private investment in natural capital and national project pipeline for nature-based solutions.</p> <p>Provide direction on and investment in green skills and local economic opportunities.</p>	On going across the projected lifetime of NANN - 2045	<p>Economic Development/ Employability/ Education/ To confirmed</p>

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What we will do	How we will do it	When we will do it by	Lead Service
<b>The Council will utilise the NatureScot's Nature Networks Toolbox to highlight and signpost tools to assist decision-making.</b>	The Nature Network Toolbox will be the primary means of taking this work forwards. It will provide guidance, peer-to-peer learning, and resource sharing. This will help address the knowledge and skill gaps. The Council will contribute to the work NatureScot is carrying out to develop the Toolbox.	On going across the projected lifetime of NANN - 2045	Sustainability
<b>Expand and enhance Nature Networks and ecological connectivity.</b>	<p>North Ayrshire Council will be the biodiversity delivery exemplar.</p> <p>The Council will support the delivery of Nature Networks within its boundary.</p> <p>The Council will develop a system for oversight and coordination for delivering ecological connectivity in line with national guidance.</p> <p>Continue to improve Nature Network linkages with NPF4 policy guidance such as the Developing with Nature Guidance.</p>	On going across the projected lifetime of NANN - 2045	Sustainability/ To be confirmed
<b>Incorporate and embed Nature Networks into policy frameworks and decision-making processes as a component of Local Development Plans and Regional Land Use Partnerships nationally by 2030.</b>	<p>Work to raise awareness of NANN and the concepts of nature networks with Council officers</p> <p>Specially identify NANN in LDP3</p>	On going across the projected lifetime of NANN - 2045	Sustainability/ Council wide