

Statutory Biodiversity Duty

REPORT ON DELIVERY

1 January 2018 to 31 December 2020



Foreword

I am very proud to launch this report. Every action in this report is a fantastic achievement. The range of projects that protect habitats and species, demonstrate leadership and expertise, facilitate partnership work and inspire community action, is extraordinary.

In 2015 the Scottish Government published “Scotland’s Biodiversity – a Route Map to 2020”. The Route Map outlined ‘Six Big Steps for Nature’ which both the Tayside Local Biodiversity Action Plan and Angus Council have taken forward with much enthusiasm. From that pivotal moment, although much valuable work was underway by local authorities, local biodiversity partnerships and public agencies, it was clear much more was required to address the biodiversity and climate crisis.

The Scottish Biodiversity Strategy outlines the need for everyone to maximise the benefits of a diverse natural environment and engage people with the natural world. Over the last three years we have delivered many projects with very small budgets highlighting that volunteer effort is invaluable. In addition to rolling out small-scale projects, we have been fortunate to work with partners to deliver to larger ecosystem-based initiatives that have begun the process of restoring our ecosystems to a healthier state. Sharing knowledge and experience at a landscape-scale with in-built sustainability helps us put the environment at the heart of our social and economic wellbeing.

Angus Council and its many partners have played a role in delivering positive outcomes in the face of the 2020 Challenge for Scotland’s Biodiversity. Staff and elected members have embraced their biodiversity duty. Their commitment is evident in the work delivered in partnership with communities and across services. The challenges faced throughout 2020 during the ongoing COVID-19 pandemic have been unprecedented and will shape how the biodiversity and climate crisis is addressed for years to come. The funding challenges faced in local government prior to 2020 and the uncertain impact of COVID-19 mean that it is more important than ever to embed the Council’s commitment to fulfilling the biodiversity duty in everything we do.

As human beings we are reliant upon biodiversity and the ecosystem services it provides are critical for our survival. It provides clean air; pollinates crops; provides fuel; inspires medicines; and – when in balance – regulates disease processes. The protection and enhancement of biodiversity will be central to the 'Green Recovery' in the post COVID-19 world.

There is clear evidence to suggest our health and mental wellbeing improve when we spend time in nature. During lockdown earlier this year the healing nature of biodiversity and our need to be immersed in it became clear. There has not been a time quite like it. The nature on our doorstep was appreciated, acknowledged and accepted: the joy in watching birds feeding in the garden, pollinators enjoying wildflowers, walks in woodlands and enjoying the rugged nature of our coastline.

This appreciation of nature and our duty to safeguard it for future generations has driven the commitment of Angus Council for more than two decades and will continue to remain a priority in the coming years. There are challenges ahead, but we look forward to the exciting opportunities 2021 may bring as we continue to work with partners and communities.



A handwritten signature in white ink that reads "Margo Williamson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Margo Williamson
Chief Executive, Angus Council

Contents

- 1 Background 5**
 - 1.1 Our Duty to Report 5
 - 1.2 The International and Scottish Context 5
 - 1.3 The Strategic Delivery of the Biodiversity Duty in Angus Council 2018-20 6

- 2 Fulfilling Our Duty to Report 8**
 - 2.1 Actions to Protect Biodiversity and Connect People with Nature 10
 - 2.2 Mainstreaming Biodiversity 19
 - 2.3 Nature-Based Solution, Climate Change and Biodiversity 24
 - 2.4 Public Engagement and Workforce Development 28
 - 2.5 Workforce skills and Training 36
 - 2.6 Research and Monitoring 37
 - 2.7 Biodiversity Highlights and Challenges 40

- 3 Future Biodiversity Action 43**

- 4 Conclusion 43**
 - Appendix 1 44

Angus Council Contribution (2018-20) to the 2020 Challenge for Scotland's Biodiversity

1 Background

1.1 Our Duty to Report

Under the Nature Conservation (Scotland) Act 2004, all public bodies in Scotland are required to further the conservation of biodiversity when carrying out their functions. The Wildlife and Natural Environment (Scotland) Act 2011 further requires all public bodies to report every three years on how they comply with this Duty. This third report is required by 1 January 2021 to cover activity for the period 1 January 2018 to 31 December 2020. This report demonstrates how Angus Council has complied with the Biodiversity Duty for this period.

1.2 The International and Scottish Context

The work undertaken by Angus Council to further biodiversity conservation contributes to international targets to halt the global loss of biodiversity. The 1992 Convention on Biological Diversity provides the original overarching target to halt global biodiversity loss; in 2010, new global targets for 2020 -the 'Aichi' targets were agreed. These are:

Strategic Goal A

Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;

Strategic Goal B

Reduce the direct pressures on biodiversity and promote sustainable use;

Strategic Goal C

To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;

Strategic Goal D

Enhance the benefits to all from biodiversity and ecosystem services;

Strategic Goal E

Enhance implementation through participatory planning, knowledge management and capacity building.

Following the agreement of the Aichi targets, the European Union published 'Our Life Insurance, Our Natural Capital: an EU Biodiversity Strategy to 2020'. To update and supplement the Scottish Biodiversity Strategy ('Scotland's Biodiversity: It's in Your Hands') which was published in 2004, the Scottish Government launched its '2020 Challenge for Scotland's Biodiversity' in June 2013.

Appendix 1 outlines how the ongoing work carried out by Angus Council contributes to these targets. In 2015 "Scotland's Route Map to 2020: The Big Six Steps for Nature" was published which links in with the original Aichi Biodiversity Targets:

- Ecosystem restoration
- Investment in Natural Capital
- Quality greenspace for health and education benefits
- Conserving wildlife in Scotland
- Sustainable management of land and freshwater
- Marine and coastal ecosystems restored

All these steps have been included in the 2nd Edition of the Tayside Local Biodiversity Action Plan and in the lead up to reporting against the 2020 Challenge for Scotland's Biodiversity are considered in Angus Council policy, strategy and plans.

1.3 The Strategic Delivery of the Biodiversity Duty in Angus Council 2018-20

Local Authorities are well placed to deliver biodiversity conservation as they can have a significant impact on biodiversity through the protection and enhancement of the natural environment. There are opportunities for wide scale community engagement, sustainable resource management and positive education, plus a range of projects and initiatives that can be undertaken, all of which can contribute directly to the safeguarding of local biodiversity.

Many teams within Angus Council lead on carbon, climate change, sustainability, waste, flood risk and planning work coordinating various policies, action plans and projects which have clear links to biodiversity conservation. Angus Council is a signatory to Scotland's Climate Change Declaration, and the Scotland Geodiversity Charter. Both contribute towards biodiversity conservation measures. Although individual teams deliver a wide range of activities contributing to our biodiversity duty, it is important to note the corporate objectives and duties Angus Council work towards. These objectives and Angus Council's role in land and estate management; the regulation of land use and development; providing public information, community learning and education around nature and the environment are included in further sections of this report.

In Scotland, many Local Authorities support and act as key leaders for the Local Biodiversity Partnership in their area. These partnerships were created in response to the original Convention on Biological Diversity. The Tayside Biodiversity Partnership (TBP), part funded by Angus Council, was one of the first in Scotland, being set up in 1998. A dedicated Biodiversity Co-ordinator has been in place for the past 20 years. The role and importance of Local Biodiversity Partnerships is recognised and supported in the Scottish Biodiversity Strategy.

Since its first publication in 2002, the Tayside Local Biodiversity Action Plan the (TLBAP) has had two main aims, namely:

- To conserve and enhance the regions biodiversity, considering both local and national priorities.

- To co-ordinate existing actions, as well as initiating and coordinating new ones. In the 2nd Edition TLBAP, published in 2016, a Tayside Vision was added:

// By 2030 Tayside will have a fully functioning ecosystem network “from summit to sand” – reaching from the Angus Glens and Highland Perthshire to the Tay Estuary, the Angus coast and beyond to the marine environment. Visitors and residents alike will be able to learn about the area’s rich biodiversity and will be keen to protect and enhance it. Both the rural and urban environment will be delivering benefits essential for everyone, from helping to reduce flooding, assisting species to adapt to climate change, and ensuring there is no further loss of biodiversity.

The TBP is currently overseeing over 140 projects across Tayside via its themed Working Groups; with the Partnership taking forward some of the projects itself. Angus Council staff sits on the management board and working groups. Through partnership working much of the funding needed for these projects is sourced externally, but increasingly there is a need for the Partnership to set up projects. Many Angus Council services contribute to project delivery through limited direct funding and in-kind contributions.



2 Fulfilling Our Duty to Report

By considering our Biodiversity Duty in our daily work we can address challenges locally and contribute to national and international outcomes. These include:

- Demonstrating we are working in a socially responsible and ethical way by, safeguarding biodiversity and environmental assets for future generations.
- Ensuring compliance with legislation and helping Scotland to meet its national and international biodiversity targets.
- Helping Scotland address biodiversity loss and the climate emergency and contributing to a Green Recovery and a Net Zero future.
- Contributing to sustainable development and the quality of life in Scotland.

New guidance has been issued by the Scottish Government for the 2018-20 reporting period and public bodies are encouraged to report progress under the following headings: Actions to Protect Biodiversity and Connect People with Nature; Mainstreaming Biodiversity; Nature-Based Solutions, Climate Change and Biodiversity; Public Engagement and Workforce Development; Research and Monitoring; and Biodiversity Highlights and Challenges.

The following sections highlight the innovative work being delivered across Angus Council and in partnership a range of stakeholders. The commitment to protecting and enhancing Angus and Scotland's Biodiversity is clear. Our Duty to Report is a welcome opportunity to share achievements and inspire action.



Biodiversity Action in Angus

Tayside Local Biodiversity Action Plan

10 year plan
140 actions
>100 partners



20 butterfly species recorded in Glens Clova and Doll



Endangered species like Pine marten recolonising Angus



Up to **150** trees planted by Angus Council per annum



Won 2 national conservation awards



50 mile-long wildlife tourism trail developed

OUR FOCUS

DELIVERING NATURE-BASED SOLUTIONS

LANDSCAPE SCALE NATIVE TREE PLANTING

RIVER RESTORATION

NATURAL FLOOD MANAGEMENT

Riverbank enhancement carried out at **7** sites



11 coastal exhibitions during the Angus Coastal Festival



5,000 native broadleaf trees planted in riparian areas



3 school species and habitat champions



1 river twinned with a river in Finland



400+ fruit trees in Angus Schools. 24 varieties



17 elected member species and habitat champions



13 Angus schools currently hold their Green Flag award from Eco-Schools



The John Muir Award - Eight schools have taken part in the Award - with **215** young people gaining the award.

40+ organisations an individual engaged in Small Blue project



Volunteering – INNS, beach cleans, surveys, habitat restoration



Wildflower habitat restoration on **2** kilometres of cycle path



40,000m² of species rich wildflower meadows

2.1 Actions to Protect Biodiversity and Connect People with Nature

This section includes actions that are undertaken alone or as part of a partnership to benefit biodiversity directly, to tackle the main drivers of biodiversity loss, and to achieve wider outcomes for nature and people.

Partnership Working

Tayside Biodiversity Partnership

The Council is a joint lead partner for the Tayside Biodiversity Partnership. The Partnership comprises approximately 100 organisations and bodies, including government agencies, non-governmental bodies, local naturalists, community groups and volunteer conservation groups. The Partnership is responsible for the delivery and promotion of the Tayside Local Biodiversity Action Plan, together with reporting on actions and targets. Themed working groups deliver and monitor habitat and species focused projects which are covered in greater detail throughout this report.



River South Esk Catchment Partnership

The River South Esk Catchment Partnership Project co-ordinator role is fulfilled by a member of Angus Council staff. Angus Council are one of the main founding funders of the partnership. Over the last three years a range of projects have been carried out with partners that contribute towards the health and wellbeing of the catchments habitats and species. These include:

- The extensive treatment of non-native invasive species such as giant hogweed, Japanese knotweed and Himalayan balsam and American mink.

- Significant river restoration projects to encourage habitat diversification and river naturalisation.
- Native tree planting projects.
- European LEADER and Heritage Lottery Fund funded projects such as the Transnational Co-operation project 'Our Rivers' and Scottish Wildcat Action.

Tay Estuary Forum

Angus Council is a funding member of the Tay Estuary Forum. The Forum brings together organisations and individuals with a common interest in the welfare and sustainable use of the Tay Estuary and adjacent coastline. The over-arching nature conservation aim of the forum is to promote understanding and monitoring of species in order to make informed decisions relating to their management. Issues which impact upon biodiversity such as flooding, diffuse pollution, coastal erosion and invasive species are monitored by the group.

Tayside Recorders' Forum

The annual Tayside Recorder's Forum event brings together professionals and amateurs interested in both citizen science and species survey work. It acts as the focus to launch citizen science and research projects, most of which involve local people. The event is organized by the Tayside Biodiversity Partnership co-ordinator who in addition produces an annual Recorders' Bulletin and maintains the Tayside Wildlife Recorders Forum Facebook page.

Joint Catchments Initiative

Angus Council through the Cairngorm National Park Authority (CNPA) joint catchments project continue to investigate landscape scale approaches to natural flood management, riparian tree planting schemes and peatland restoration on the rivers Dee, Spey and South Esk. During 2019/20 the CNPA successfully secured a place in round two of the Heritage Horizons Heritage Lottery Fund and over the next year climate change adaptation and community resilience projects across the three catchments will be developed for the final bid.

Turning the Plastic Tide

The East Grampian Coastal Partnership (EGCP) project - Turning the Plastic Tide is a three-year marine litter initiative for the EGCP delivering marine litter education and supporting volunteer beach cleaning in the North East of Scotland from Fraserburgh to East Haven in Angus. Angus Council provided match funding for phase one and engaged with local businesses to source phase two funding. The dedicated project officer has facilitated beach cleans, exhibitions, school outreach and has promoted campaigns on social media such as the Great Angus Beach Clean, Covid19 'Lockdown' weekly school activities and the Angus Coastal Festival. The project is a fantastic example of cross boundary working.

Small Blue Butterfly Interest Group

Angus Council, Tayside Biodiversity Partnership and a range of partners including Butterfly Conservation, community groups, local golf courses and landowners work together to survey, monitor and deliver habitat restoration work for the UK's smallest butterfly in Angus. The small working group coordinate action which has been delivered with more than 40 organisations and individuals.

In 2019 the Angus project 'Back from the Brink – Saving our Small Blue' won two national accolades and is a shining example of all that can be achieved when we work together.

Creation, Enhancement and Protection of Wildlife and Natural Habitat

Meadow and Wildflower Management

Angus Council manages a range of sites as wildflower meadows and in total manages 40,000 square meters of species rich wildflower meadow. Where possible grassland is managed to restore wildflower diversity in addition to the creation of new meadows. Although higher in manpower and material investment than conventional maintenance methods these areas are managed through a single cut late in the season with all cuttings removed encouraging diversity.

Brechin Flood Prevention Scheme provides integrated flood protection and drainage solutions on the banks of the River South Esk. Environmental improvements incorporated into the local park include three different kinds of wildflower meadows; each sourced locally, providing an important food source for a variety of insects and birds. A variety of shrubs and trees that are nectar and food sources for birds, vertebrates and insects have been planted around the flood defence. Environmental improvements delivered on site increase native biodiversity and opportunities for access and outdoor learning. INNS treatment has been carried out annually to enhance the area for biodiversity and the public.

Angus Council has reduced the overall quantity of chemicals applied in parks and other open spaces. Highly trained operators have reduced Glyphosate use to the very minimum through low volume application. All chemicals are correctly and professionally applied and their impact on pollinators is considered e.g. time of day and spray drift. These initiatives help deliver the objectives listed in the Scottish Pollinators Strategy

Volunteers have helped with wildflower and flora enrichment in selected woodlands around Angus. Individuals and Friends of the Earth Kirriemuir group were involved in collecting wildflower seeds from existing meadows

and broadcasting them in sites specifically selected for biodiversity improvements. The seeds distributed included yellow rattle, red campion, foxglove, cranesbill and knapweed.



Roads Maintenance and Verge Management

Angus Council Roads Service liaise with local communities, environmental organisations and botanists about the maintenance of species- rich verges in parts of Angus. The rural grass cutting regime in Angus is two cuts on A, B and C class roads per year, a 1 meter swathe generally with extra sight lines and inside of bends, plus only one cut on U class roads in mid-summer.

Examples of good practice include a one cut local agreement which is in place with the Scottish Wildlife Trust on the A92 outside the Montrose Basin Wildlife Centre to look after an area of grass for conservation purposes. In addition, Angus Council has worked with BEAR Scotland to preserve plants such as Northern marsh orchid and cowslip on slip ways off the A90. Staff are encouraged to take into consideration the guidance given in the Plantlife 'Good Verge Guide: a different approach to managing our waysides and verges'.

Angus Council are using innovative communication tools such as Shaping Angus to encourage local communities to identify their favourite local wildflower rich verges. Management programmes consider community observations and the project will ultimately aid in the protection of valuable

sites. Wildflowers such as dandelion, red campion, sweet cicely, ox – eye daisy cowslips and orchids are regularly reported.

Development Management

The Council's Development Management function continues to implement the requirements of the Habitats Directive in its decision making, working closely with Nature Scot (formerly SNH) in carrying out Appropriate Assessments and securing appropriate mitigation where development proposals are capable of significant effects on our SPAs and SACs.

Ecological surveys are routinely required where developments have the potential to affect habitats of protected species including (but not limited to) bats, birds, red squirrels and badgers. These surveys allow for the design of proposal to avoid adverse impacts on protected species or provide suitable mitigation where an impact cannot be avoided. This has included development buffer zones where it is close to badger setts or the provision of bird boxes or bat slates in new development.



The opportunity is taken when considering proposals for new development for the incorporation of new habitat creation, whether a new wildflower meadow in the Sunnyside redevelopment scheme or enhanced tree and hedge planting with native species, creating new homes for our residents and our biodiversity. We have also secured improvements to the design of new sustainable drainage systems (SuDS) to improve the opportunities they offer for habitat creation.

The Council has secured the removal of invasive species (e.g. Giant Hogweed) in adding value to planning permissions which are issued.

Tree Preservation Orders have been introduced where development threatens the amenity value of important trees and woodland, which consequently also safeguards the habitat they provide. Some of these orders have protected hundreds of trees or old trees around the site of the demolished Panmure House including a line of ancient yews and a very old sweet chestnut tree (which was photographed in an old postcard from perhaps more than a hundred years ago).

Managing Montrose Basin Local Nature Reserve

Examples of habitat creation and management at Montrose Basin Local Nature Reserve include enhancing tern nesting habitat in partnership with the Scottish Wildlife Trust, sand martin bank repair and maintenance, saltmarsh restoration through the implementation of livestock grazing and the management of invasive non- native species. All contribute to the heath and diversity of reserve species and habitats.

Enhancing Biodiversity at Angus Council Sites

Biodiversity Landscaping

When designing landscape projects staff aim to incorporate the following principles:

- Identify species & habitats of interest on existing site and ensure their protection during site works.
- Incorporate existing habitats such as scrub and woodland, grassland, ponds, burns, etc. into the new green space where appropriate.
- Retain mature and veteran trees for their high biodiversity value.
- Check timing/ effect of works on species and habitats to ensure lowest possible impact.
- Create new planting communities to enhance biodiversity such as wildflower meadows, mixed hedgerows, woodlands, ponds.
- Include plant species that will provide nectar, food, shelter and nesting opportunities for a variety of invertebrates, birds and mammals.
- Use native species of shrubs, trees and other plants and where possible, plants of local provenance.
- SuDS features such as retention basins and swales to be landscaped with shallow gradients, wildflower meadows and appropriate shrub and tree planting.
- Where possible, utilise walls and fences for growing a wide variety of climbing plants which will provide shelter and a food source for invertebrates, birds and bats.

The above objectives have been incorporated in six major projects in four Angus burghs and are considered in all development.

Biodiversity Landscaping and enhancement has been carried out at Angus Schools and in Country Parks including:

Tealing Primary School saw the creation of a pond in the grounds providing a new aquatic environment supporting a range of species. The pond was enhanced with a range of native aquatic plants to provide food and shelter for amphibians, larvae, and insects. Wildflowers, alpines and other plants have been planted around the pond increasing site diversity. Further enhancement was carried out at Newtyle Primary School pond in 2020 when a pollinator garden containing more than 200 plants was created by pupils and volunteers.



Inverbrothock Primary School developed outdoor areas to enhance biodiversity through several initiatives. The Woodland Trust 'Free Trees for Schools' scheme enabled the planting of 120 native trees beside the sports pitches. Further to this a disused area previously storing oil tanks has been converted into a sensory garden, featuring a variety of native and non-native flowers, shrubs and trees. A willow dome was also planted, for both its utility as a covered space and as a 'living feature' benefiting wildlife. The school polytunnel was also reinstated and raised beds constructed around it to enable a whole school vegetable growing initiative.

Over 3300 sqm of woodland tree planting was carried out in 2020 by Parks Services at the boundaries of the Arbroath Academy playing fields with a variety of native whips planted to replace lost woodland at a local Primary School Site. This did not only result in an increase in tree numbers by a third but also provided an important new link in the local greenspace network.

Angus Alive staff at Monikie Country Park has continued to expand and improve two orchards within the park. One has 60 and the other and 20 trees supporting ancient varieties and local provenance.

Angus Alive staff at Forfar Loch Country Park worked in partnership with a local construction company to restore wildflower and enhance native meadows on site boundaries and path edges. Plans are also in place to plant Scot's Pine on the eastern side of Forfar Loch to increase tree cover creating corridors for red Squirrels.

The Forfar Action Network obtained funding from Angus Environmental Trust for environmental improvements at Castle Hill in Forfar. Plans were developed with the community group and the Parks Services staff planted trees and shrubs enhance biodiversity. Sensitive pruning and felling works were carried out to create views from the tower and information board and seats were installed creating a welcoming site for the community to enjoy biodiversity and Forfar in its wider setting.

Biodiversity and Buildings

The Council building programme of new schools and affordable housing has incorporated measures to improve biodiversity. Affordable housing developments in Brechin and Newtyle include bird and bat boxes in the construction of new homes. The Timmergreens Regeneration Project in Arbroath includes significant new tree planting and hedgehog highways.

The Town Centre Regeneration Fund awarded Tayside Swifts funding to identify existing swift nest sites and add additional nesting opportunities in



the town centre. Angus Council staff are providing advice on historic buildings and the conservation area and have participated in training opportunities in early 2020.

The Angus Council site Orchardbank in Forfar has been retrofitted with swift boxes which have proven to be popular with starlings and house martins.

The 2nd Edition of 'Incorporating Biodiversity into Local Services' was published by the Tayside Biodiversity Partnership in October 2020. It aims to provide examples of how to consider biodiversity for all services including architects, develop management and housing teams. The guide is a useful tool for partner agencies and contractors.

Case study

Montrose Space for Nature

The Montrose Space for Nature Pilot was developed by Angus Council staff and local native wildflower seed producers Scotia Seeds. The project involves a change in the grass cutting regime and herbicide application in open spaces at three sites in Montrose to allow wildflower regeneration. A 2km section of cycle path is reducing from 16 to 2 cuts per year, with the final cut and lift in late autumn. This will reduce nutrient load on the verges allowing wildflowers and pollinators to thrive. The pilot project goes beyond amenity grassland management also focusing on wildflower meadow management in disused kirkyards. The project has enhanced biodiversity by allowing regeneration of native grassland meadow and has improved the food source for pollinators and will be extended to Arbroath in 2021. Scotia Seeds have funded information panels that will provide in-situ details about the project. Local people of all ages were asked to send in drawings of local wildlife and wildflowers and a number have been selected for use on the information panels.



Addressing the Key Drivers of Biodiversity Loss

The key drivers of biodiversity loss including loss of habitat, climate change, pollution and a decline in ecological connectivity and action to mitigate their impact cut across all sections of this report. This brief section focuses on Invasive Non-Native Species.

Invasive Non-Native Species

Treatment of invasive non-native species (INNS), particularly along river corridors continues on Angus rivers. The Scottish Invasive Species Initiative (SISI) has successfully increased the volunteer pool with INNS treatment skills in Angus. Volunteers have been trained to manually remove Himalayan balsam and chemically treat giant hogweed and Japanese knotweed. The initiative has also carried out American mink monitoring and trapping via a skilled volunteer network. Running concurrently Angus Council has also participated in the Aberdeenshire Council LEADER funded North Est INNS Forum, investigating treatment in cross boundary areas.

The River South Esk "Riverwatch" scheme for reporting INNS shares reports with SISI and reports of Giant hogweed are passed to the Roads Maintenance Team who, in accordance with their established procedure, aid in treating INNS along roadside areas.

The River South Esk Catchment Partnership are a Great British Non - Native Species Secretariat Local Action Group sharing good practice and participating in National INNS week annually.

Angus Council support the Saving Scotland's Red Squirrels project. Staff raise awareness of campaigns, sightings reporting and some volunteer for annual surveys. The project officer provides support and advice for staff with regards to planning, forestry and squirrel ecology.

Angus has a long coastline and Marine INNS have been a focus in outreach projects such as Capturing our Coast. Good practice and opportunities to engage in citizen science projects are shared via the Tayside Biodiversity Partnership's Coastal and Marine Working Group and the Tay Estuary Forum.

2.2 Mainstreaming Biodiversity

This section outlines steps taken to incorporate biodiversity measures into wider policies, plans or strategies. The conservation of biodiversity is embedded in the delivery of Council services.

Policies, Plans and Strategies

Tayside Local Biodiversity Action Plan 2016-26

The Tayside Local Biodiversity Action Plan (2016-26) leads the way in protecting the multitude of flora and fauna and habitats across Angus. It brings together organisations, communities and individuals and there are more than 140 projects aimed at protecting, enhancing and enjoying biodiversity. The plan focusses and directs staff efforts to deliver the Biodiversity Duty.

Angus Local Development Plan 2016

The Angus Local Development Plan (2016) facilitates the delivery of biodiversity conservation through land management policies, supplementary planning guidance and the protection and designation of local sites. This ensures that land use planning and the management of Council-owned land delivers protection and enhancements for biodiversity.

Angus Community Plan 2017-30

Published in October 2017, the Angus Community Plan (2017-30) and four area Locality Plans are requirements of the Community Empowerment (Scotland) Act 2015. The plans aim to deliver strategic outcomes that contribute to Angus Council's Vision for the future that 'Angus is a great place to live, work and visit'. It is based on three local priorities and three local, cross-cutting themes of economy, people and place.



Angus Council Plan 2019-24

Positive action to protect and enhance biodiversity contributes to the aims of the Council Plan (2019-2024) to ensure that Angus is a great place to live, work and visit. It also makes a positive contribution to the health and wellbeing of the citizens of Angus.

Greenspace Policy

Angus Council's Local Development Plan recognises the contribution green networks make to quality of life, health and well-being and the opportunities offered for biodiversity and habitat enhancement. Policy aims to protect and enhance the ecological functionality and connectivity of existing green networks. In addition, new development is designed to enhance green networks. The work being undertaken across services will help identify strategic county wide ecological networks, informing planning guidance and policy requirements.



Angus Forestry & Woodland Strategy

Angus Council has begun the in-house preparation of the strategy which is a requirement of the Planning (Scotland) Act 2019. The strategy will include the identification of woodland of high nature conservation value as well as policies and proposals for their protection and enhancement. The strategy which will be completed during 2021, is an opportunity to increase biodiversity and improve degraded landscapes. It will also contribute towards the delivery of national timber production targets and will aid in mitigating the impacts of climate change.

Angus Local Landscape Areas

Following an assessment of special qualities, and public engagement, the study will support the designation of local landscape areas through the forthcoming local development plan. Four local landscape areas (LLA) are proposed, being the Angus Glens, River South Esk, Sidlaw and Angus Coast. In all four areas, one of the identified special qualities was "rich in nature," with other qualities relating to biodiversity also being identified including "iconic birch woodland" and "wild upland landscape".

Angus Local Nature Conservation Sites

Angus Council is working with Perth & Kinross Council and Nature Scot to create a suite of Local Nature Conservation Sites across Tayside. The sites will be included in the forthcoming Local Development Plan. More than 40-60 biodiversity sites are proposed and 40 geodiversity sites. All will be considered by expert panels and designated in 2021/22.

Natural Flood Management

Angus Council has several actions to be implemented from 2016-22 that may impact on biodiversity, as part of the duties on responsible authorities under the Flood Risk Management (Scotland) Act 2009. These are published in the Tay Estuary and Montrose Basin and Tay Local Flood Risk Management Plans. An assessment of the potential for natural flood management (NFM) was used to help identify opportunities for using the land and coast to slow down and store water. NFM actions have been recommended in areas where they could contribute to the management of flood risk. In such instances these actions are described as part of flood protection or NFM studies.

Angus Food Growing Strategy

The Scottish Government has set out a vision that by 2025 Scotland will be "a Good Food Nation, as part of this vision a duty was placed on Local Authorities to develop a food-growing strategy. This includes the identification of land for allotments and other community growing and describing how the authority will meet demand for such land. Angus Council and its partners are in the process of developing this strategy and an action plan. Both will contain guidance and outcomes relating to enhancing biodiversity at sites and providing opportunities for environmental education.



Roadside Verge Management

In Angus it is recognised that roadside verges play a role in providing a valuable habitat for wildlife and in pollinators. Staff have worked with local communities, environmental organisations and botanists in order to maintain a range of species-rich verges in parts of Angus.

Currently Angus Council adopts a rural grass cutting regime which delivers two cuts on A, B and C class roads per year. Usually this is a one-metre swathe with extra cutting at sightlines and inside of bends. A second cut occurs in mid to late August giving wildflowers a chance to flower and set seed. On unclassified roads there is only one cut made in mid-summer. Changing weather patterns, a trend being warmer wetter summer months, will at times, influence cut timings.

Hedgerow Management

Angus Council owns very few hedgerows but do engage with private landowners where there is a requirement for hedges to be cut back to boundary lines for safety reasons. The authority can serve notices under the Roads (Scotland) Act 1984. Management of hedges, at appropriate times of year (not during bird breeding season) by farmers, is often required to maintain hedge structure that allows drainage to flow. In some cases, verges can benefit increasing flora diversity. The Angus Council Arboriculture Technician provided good practice sessions for Angus Council staff and contractors for the 2020 season.

Case study

Angus Species and Habitat Champions

Following in the footsteps of MSP Species Champions Angus has its own “Species and Habitat Champions”. The roll out of champions began in 2018 with the Councils elected members and in 2020 champions for Urban Trees and Climate Change brought the number to 17. The species and habitats champions are leads in promoting and conserving their own habitats and species and carry out awareness-raising with local communities, businesses and schools. The champions have successfully initiated projects and involvement from local schools, with Woodlands PS (small blue butterfly and swift), Ladyloan PS (marine litter) and Glenisla PS (wildcat) primary schools having joined the initiative.

To date the champions have been involved in a wide range of activities focusing on topics such as: marine litter, coastal erosion, farmland management, invasive non-native species, meadow creation, pollinators, natural flood management, woodland creation, climate change adaptation, wild food foraging and habitat corridors.

Many local and national priority species have been a focus of action including badger, hare, swifts, otter, hedgehog, small blue butterfly, bumblebees, wildflowers, bottlenose dolphin, pine marten, red squirrel and wildcat.



2.3 Nature-Based Solution, Climate Change and Biodiversity

This section demonstrates how Angus Council works with a wide range of partners to deliver nature-based solutions. Landscape scale native tree planting, river restoration, natural flood management and engagement with land managers including estates and farmers continues to become more common practice across Angus. Climate change is a direct driver of biodiversity loss and Angus Council recognise the positive contribution biodiversity can make to building resilience and help nature to mitigate and adapt to climate change.

Delivering Nature-Based Solutions

Catchment Scale Solutions

The River South Esk catchment area is managed by a voluntary catchment partnership. Up to late 2017 some notable project work included five completed river restoration projects, 8000m of naturalised river channel, over 130km of riparian buffer strips created, 27,000 native broadleaves planted and more than £75,000 spent on invasive non-native species control. Priorities over the next decade will include improving ecological connectivity; riparian woodland expansion; invasive non-native species control; climate change adaptation; peatland restoration and; natural flood management. In 2019 the partnership was awarded funds via the Scottish Government's Biodiversity Challenge Fund and in 2020 are carrying out riverbank enhancement at five sites and creating riparian tree corridors using 5000 native broadleaf trees.



The Cairngorms National Park Authority Heritage Horizons Heritage Lottery Fund bid, if successful, will provide opportunities to deliver climate change adaptation and community resilience projects in Angus from 2023 onwards. Angus project briefs and costings have been worked up by the partnership in 2020 for submission in 2021.

Previously, a large-scale forestry project the 'Glen Clova Contour Planting Project' aimed at reducing peak flows in the upper South Esk catchment saw contour tree planting take place in two areas of Glen Clova and Doll. Funding for further large-scale planting (£3.2million) is in place and the planting of 165 Ha (246,000 trees) began in spring 2019. Further phases will be delivered in 2021. The site has been used in 2019/20 as good practice site and the Angus Council Climate Change Member Officer Group visited the site to witness adaptation in practice.

Arbroath (Brothock Water) Flood Protection Scheme - which is ranked nationally as a priority project and is an action in the Tay Estuary and Montrose Basin Local Flood Risk Management Plan - has been the subject of formal notification and construction is anticipated to be complete before 2022. Hard engineering and Natural Flood Management solutions such as will feature providing biodiversity enhancement opportunities.

Natural riverbank protection can provide biodiversity benefits and is being used on large watercourses and on smaller ones near urban areas. In 2019 on the path network at Arbirlot, willow wall was used for retention rather than re-instating a previous blockwork wall. The same approach was used by the Parks Department in Kirriemuir Den on the Gairie Burn in 2018.

An annual Standard Tree Planting Scheme run by Angus Council contributes to carbon capture and provides a biodiversity benefit. The scheme replaces trees that have been lost or had to be felled due to age or health issues. Between 90 and 150 trees were planted annually throughout Angus in the last 5 years. In addition, tree donations have been received from individuals to offset their carbon footprint and planted in Angus open spaces and burial grounds.

Dramatic losses of habitat, fragmentation and climate change threaten the survival of many native pollinator species and Angus Council are working with Buglife and other stakeholders to identify and enhance B-Lines across Tayside. The creation of the B-Lines, along with other pollinator projects, will help Angus Council to achieve ambitions set within the Pollinator Strategy for Scotland to 'make Scotland more pollinator-friendly' and 'halt and reverse the decline of our native pollinator populations'.

South West Angus has numerous Eurasian beaver family groups along many watercourses. Angus Council work with stakeholders including landowners, government agencies, communities and special interest groups to understand how beavers use natural resources and their impact on infrastructure, flood risk and biodiversity. Where necessary, appropriate mitigation can be employed in-situ and observations may be used to inform what role the species may play in natural flood management in appropriate settings.

Incorporating Biodiversity into Climate Change Strategies and Partnership Initiatives

Angus Council has a long history of considering the impacts of climate change on people and nature. Governance, strategies, action plans and projects are in place to mitigate and adapt to the impacts of climate change.

Climate Change Member Officer Group

Monitoring of climate change activity and scrutiny of climate change reporting to the Scottish Government is carried out by the Climate Change Member Officer Group which meets four times per year. In addition, three focused groups lead on greenhouse gas reduction, adaptation, and sustainability. Organisations such as Scottish Forestry have delivered presentations to the group and members have visited projects on the ground in the Angus Glens and in lowland arable Angus.

Sustainable Energy and Climate Action Plan

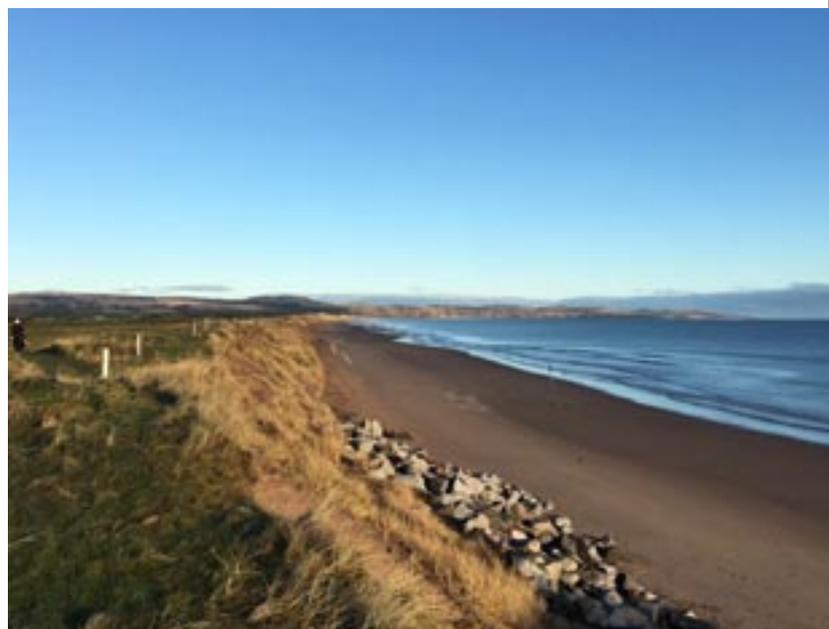
Angus Council, with a range of stakeholders, is currently writing a Sustainable Energy and Climate Action Plan (SECAP). The plan will consider greenhouse gas reduction, adaptation and wider sustainability issues and will be published in late 2020. The delivery of the adaptation element of the SECAP will be monitored by the Adaptation Working Group of the group of the Climate Change Member Officer Group. Nature-based solutions, coastal erosion, nature friendly farming, species and habitat resilience and community resilience will be central to the plan.

Flood Risk and Biodiversity

A Flood Risk Management Member Officer Group continues to meet, and adaptation delivered through flood risk management is regularly monitored.

Montrose Bay is one of seven Super Sites under the Scottish Government's Dynamic Coast project. The project uses innovative mapping and modelling tools to establish the effects of climate change on our coastline. Work is ongoing to develop Adaptation & Resilience Plans for each site, based on detailed assessments.

Adaptation seeks to lower the risks posed by the consequences of climatic changes. Action in 2019/20 included ongoing policy delivery such as the Local Development Plan's policies on managing flood risk, water quality and greenspace enhancement.



Case study

'Our Rivers'

The 'Our Rivers' LEADER Transnational Cooperation Project is led by the River South Esk Catchment Partnership and Merikarvia Municipality in Satakunta Finland. The overall purpose of the project is to facilitate the creation of resilient, innovative and prosperous Communities on a landscape scale. The project focuses on collaborative river management, invasive non-native species control, climate change resilience, community volunteering, and the River South Esk has been twinned with the principal river in the area – the Merikarvia.

The 'Wild South Esk' Trail

An element of the project inspired by the collaboration with Finland is the 'Wild South Esk' trail is the first of its kind for Angus if not Scotland. The 50-mile long Cairngorm Mountains to North Sea route includes 10 sites (8 with on-site interpretation), 40 native species and 10 habitat types, plus 15+ local walks and cycling opportunities from all sites. At the heart of the project is the unique illustration style inspired by the river's landscapes, habitats and species.



Climate Change Related Challenges for Biodiversity

Measuring the effects of climate change on the natural environment is a huge task and Angus Council are guided by our partners through collaborative project work and strategy development. The Tayside Local Biodiversity Action Plan 2016-26 considers the effects of climate change on a variety of species and habitats. Surveys are undertaken on invasive species movement in riverine and estuarine areas. Citizen science projects are developed and supported by the partnership allowing us to better understand species migration, abundance and decline. Further sections of this report outline the biodiversity research and monitoring taking place in Angus.

2.4 Public Engagement and Workforce Development

This sections details communication and education activities undertaken to inform or engage with communities. Public Bodies are in a position to facilitate an understanding of, and connection with, biodiversity and nature in both formal and informal settings.

Public Engagement

Biodiversity Communication

Awareness-raising, communication and engagement are key elements of the biodiversity work undertaken by Angus Council. Promotion of biodiversity includes:

Websites and Social Media

The Angus Council website is regularly updated to include local, regional and national biodiversity policy news and three twitter accounts highlight sustainability, landscape and the River South Esk catchment. In addition, there is an Instagram account @Wildsouthesk.

The Tayside Biodiversity Partnership administers four Facebook pages - Tayside Biodiversity, Tayside Swifts, Tayside Amphibians & Reptiles, and Tayside Wildlife Recorders' Forum. All feature news, events and engagement opportunities.

Media Coverage

Biodiversity project work is shared via e-news, blogs and press releases. The Tayside Biodiversity Partnership, University of Edinburgh, East Haven Together, Marine Conservation Society, Cairngorms National Park Authority and Greenspace Scotland are only a few of the external agencies who've shared news, blogs etc and the Angus Coastal Festival featured on BBC Radio Scotland Outdoors and Out for the Weekend.

Wild South Esk Community Consultation

Angus Council is the only Local Authority in Scotland to use Social Pinpoint. The online consultation tool allows the public to spatially convey their suggestions, ideas, concerns etc. on a project defined map base. The Wild South Esk project carried out a consultation asking the public to pinpoint

their favourite catchment wildlife watching spots, species, viewpoints, walks and cycle routes. There were over 130 responses from locals, UK wide and international respondents. The information was used in the planning of the final Wild South Esk wildlife trail.



Supporting volunteering

Angus Council has supported the training and continuous professional development of staff, elected members, communities and organisations such as Glaxo SmithKline, BT, Marine Scotland and Montrose Port Authority through the Angus Coastal Festival, beach cleans and invasive species control. In addition:

Tree planting works were carried out by community groups and individuals supported by Angus Council staff. The Kirriemuir Friends of the Earth group planted trees at three sites in Arbroath and volunteers planted trees provided by Angus Council at Broomfield in Montrose.

The waste services team actively engages with our communities to enhance biodiversity and nature. Litter-picking equipment is loaned to groups who carry out clean-ups and the resultant waste is collected. In November 2017 the "Adopt-a-Street" campaign was launched at the community led Litter Summit. The scheme provides litter-picking equipment to residents who wants to clean somewhere special to them. Almost 60 Angus residents signed up within the first six months and almost 100 by August 2020.

'Banking on the Bees' and 'Treesy Does It', led by Angus Alive Rangers Service are small Community Service Volunteers Action Earth grant aided projects. They involved- planting out cowslips, primroses and foxgloves to provide food for bumblebees on the north side of Forfar Loch Country Park

and extending the Community orchard at the south side of the park. Planting spring flowering bulbs to enhance the area for early bumblebees and the introduction of fruit bushes and a seated area with a bark path all contributed to biodiversity enhancement and a place for the community to enjoy nature.



Community Groups and Partnership Working

Council services work closely with communities to improve biodiversity, particularly in urban settings across all Angus towns. Parks Services provide design advice, help with the selection of sites, site clearance and tree pruning works and tools and materials. Projects have included:

Monifieth Ecoforce planted wildflower in the orchard at West End Community Meadow. Further planting took place in the Beach Garden project at Monifieth Seafront. The group carry out monthly Beach Watch days and litter picks in the Dighty Den.

Colourful Carnoustie created wildflower beds on the seafront and plant and maintain planters throughout the town centre. The Seafront Rest Garden, funded by the Open Legacy Fund included tree felling, the clearing of shrub beds and replanting.

Keptie Friends in Arbroath have improved nesting sites for wildfowl on an island in Keptie Pond. Works included tree pruning and felling works. Annual wildflower areas have been planted to attract a variety of pollinators; willow hurdles have been established around the pond. A water

supply from a previously redundant well is now supplying the pond with fresh water, stabilising water levels and provide aeration for wildlife.

The Toon Residents Association in Arbroath created a strip of wildflowers along the burn at Old Shore Head with a mixture of perennials and annuals. Also, in Arbroath, Arbroath in Bloom provided floral displays throughout the town including bicycle planters. Friends of the Rose Garden carried out improvements including new planting to the rose garden.

St Vigeans Conservation Network have planted native woodland and installed bat boxes and bird nesting boxes.

Blooming Montrose installed planters and hanging baskets in High Street and other Montrose locations. Montrose Bay Community Group cleared algae and rubbish from Borrowfield Pond, have carried out beach cleans and installed a fitting floral display in a boat on the seafront overlooking Montrose Bay. The redesign and replanting of the rockery garden at Montrose library was funded by Montrose Rotary Club.

Inch Maintenance and Preservation Society in Brechin seeded native wildflowers along Skinners Burn.

Forfar in Flower established flower beds in Boyle Park and continued to look after a series of beds and planters throughout Forfar.

Woodland trees donated by the Kirriemuir Round Table were planted at Kirriemuir Hill by residents including school children.



School Outreach and Outdoor Learning

Thirteen Angus schools currently hold their Green Flag award from Eco-Schools Scotland and a further 11 schools are working towards receiving their Green Flag. Earning a Green Flag is a visible indication of the school's commitment to Learning for Sustainability and an internationally recognised accreditation for excellence in sustainable education.

The John Muir Award is used to help deliver Curriculum for Excellence outcomes, achieve equity in education through pupil attainment, and demonstrate Learning for Sustainability in action involving learners taking responsibility for nature both in school grounds and in wider communities. Eight schools have taken part with 215 young people gaining the award.

In December 2018 Angus Council, Arbroath High School and Tesco worked together to reduce litter on the routes young people commonly used. Pupils and staff produced eye-catching litter bin stickers, spray-painted footsteps on footpaths to highlight the location of litter bins and engaged with pupils on bin locations, providing additional bins where required.

Provision of Ranger Services and Public Education Programmes

Activities led by Rangers Services in Angus are included in many sections of this report. The following is an example of key work:

At Montrose Basin Local Nature Reserve outdoor education and formal events are run jointly in partnership with the Scottish Wildlife Trust. Activities include educational group visits including University and higher education groups, joint guided walks, site specific events allowing interpretation of the key species and habitats within the reserve e.g. Pink footed goose and Journey to the Centre of the Mud events. The Scottish Wildlife Trust host a teacher naturalist team at the reserve and each year hundreds of Angus pupils visit the site to learn about its habitats and species.



Forfar Loch Country Park Angus Alive Rangers Service extended delivery of the 'Going the Whole Hog' project by reaching out to community groups and delivering talks on the ecology of the European hedgehog.

A second hedgehog project 'Mind the Gap' Project was rolled out in the Turfbeg area of Forfar. Posters and Leaflet drops encouraged residents to sign up as hedgehog champions and learn more about managing gardens for wildlife. The project provided free hogilo boxes for early pledgers, Mind the Gap signs, wildlife gardening advice and site visits to offer advice on best practice. Pledgers were encouraged to become Hedgehog Street Champions. The project was extended to Carnoustie and promoted in Kirriemuir.

Forfar Loch Junior Rangers made six Nest boxes and they were erected in Turfbeg Woodland as part of Scottish Mental Health Arts Festival. Plans are also in place for a seating area allowing reflection and enjoyment of the site. Junior rangers took part in the Big Garden Bird Watch and records surveyed butterflies submitting records to and Butterfly Conservation.



During the 2019 Angus Coastal Marine Conservation Society set up an exhibition and ran events at Montrose Library. 300 people attended the event. Education events were run, including workshops with Southesk Primary School and Borrowfield Primary School. 135 pupils engaged.

Exhibitions and Events

During the Angus Coastal Festival which took place in 2018 and 2019 11 exhibitions were held in Angus coastal venues covering topics including coastal butterflies, marine litter, marine mammal rescue and ocean optimism. Alongside the exhibitions, Angus libraries provided marine themed Book Bug and Adult Reminiscence Group sessions.

The first Angus Coastal Festival in 2018 had great success in engaging Angus communities with their coastline. The project was selected for a poster presentation at Scotland's International Marine Conference in February 2019.

The River South Esk Catchment Partnership exhibit at the annual Dundee Food and Flower Festival. Housed in the Scottish Forestry 'Woodlands for Yew' area the partnership shares environmental good practice in the catchment with a wide Tayside audience.

Turning the Plastic Tide featured a month-long exhibition at the Montrose Basin Visitor Centre during the Angus Coastal Festival. A display of photographs illustrated the highlights from the inaugural Great Angus Beach Clean run by East Haven Together.

Case study

Angus Coastal Festival

The first ever Angus Coastal Festival was held in September 2018. The festival's aim was to raise awareness of some of the iconic species and habitats of the Angus coast and provide an opportunity to engage with coastal communities and partners. The Tayside Biodiversity Partnership's Coastal and Marine Working Group developed the festival programme and 40 events ran over 11 days. More than 21 partners were involved, and the festival was attended by more than 700 people. There were 10 coastal walks, nine beach cleans, a wildlife photography course, Continuous Professional Development sessions on coastal erosion and engineering and even an opportunity to forage for seaweed and taste seaweed soup and pudding. The event was repeated in 2019 and again was great success. Due to Covid19 restrictions there was no 2020 event celebrating Scotland's Year of Coasts and Waters. All going well the event will be back in 2021.



Citizen Science initiatives

Citizen Science initiatives are very popular in Angus communities. Individuals and organisations participate in the recording on many taxa for organisations including Butterfly Conservation, Buglife, Saving Scotland's Red Squirrels, Scottish Badgers, Scottish Wildcat Action, RSPB, Plantlife and Marine Conservation Society. Examples are included in many sections of this report and the award-winning Angus small blue butterfly project features in section 2.7.

A second-long running local initiative run by Marine Life Angus and the Tayside Biodiversity Partnership continues to embrace technology as means of recording data and promoting Angus as land-based whale and dolphin watching destination. The Marine Life Angus website provides an opportunity to submit cetacean sightings and find out more about the Angus coast. Sightings are analysed and distribution maps have been produced and used as a conservation tool and for promoting the Angus coast. Twitter is being used more frequently to report sightings and the innovative use of WhatsApp in Shetland to report orca sightings has been embraced and a similar group has been set up in Angus.

Community Litter and Pollution Prevention

The recording of marine litter, its removal from coastal habitats and behaviour change initiatives enjoy high levels of community participation in Angus. All improve coastal eco-system health.

An example being data collected via the Marine Conservation Society. In Angus from January 2018 to December 2019 25 beach clean surveys were carried out by 341 volunteers totalling 404 volunteer hours. 116 bags of litter were collected weighing 812 kgs. Amazingly this comprised 12,626 individual litter items.



In May 2019 Angus Clean Environments (ACE) launched their Arbroath Harbour Litter Prevention Action Plan. Angus Council assisted ACE on their plan to reduce litter and dog fouling in the harbour area. A suite of anti-litter and dog fouling bin stickers nautical themes and carrying the message '80% of marine litter originates on land'. These were displayed on litter bins and by local businesses.

Recognising that the most prevalent type of litter in Angus (and across Scotland) is cigarette butts, a campaign was introduced asking visitors to Arbroath High Street to 'bin their butts'. Businesses placed our posters in shop windows and stickers were placed on litter bins. A bin was erected as a way to encourage people to bin their butts and has resulted in less cigarettes on the ground.

Schools are actively engaged with to promote anti-litter, fly tipping and dog fouling messages on ongoing basis. The 'Right stuff, Right bin' campaign was introduced in December 2018, followed by 'Right stuff, Right skip' messages at recycling centres.

2.5 Workforce Skills and Training

This section details activities that have been undertaken to support workforce development in relation to skills relevant to biodiversity, nature, outdoor learning and community engagement in the natural environment.

Training and Volunteering

Angus Council has been working to embed biodiversity protection and enhancement into the work of the Council and its partners as part of the implementation of the Tayside Local Biodiversity Action Plan (2016-26) and the Angus Local Development Plan (2016).

The Planning Service has led activity pulling together different Council services and external partners to carry out projects and alter operational practices to protect and promote biodiversity.

Work has also focused on upskilling Council staff and partners through training and sharing good practice so that the protection and promotion of biodiversity is embedded into everything we do. Staff have worked in partnership with communities and businesses resulting in cleaning of beaches, controlling invasive non-native species and delivering projects to enhance the habitat of threatened coastal flora and fauna. Projects include:

Staff training: a programme of Building Better Biodiversity staff training sessions targeted at different disciplines across the council and its partners. The sessions focus on different topics areas (e.g. woodland enhancement, swifts, etc.) and aim to upskill staff so that they can identify opportunities in the way they work to protect and enhance biodiversity.

Sharing good practice: The creation of a Building Better Biodiversity Yammer group - an online forum to share training opportunities, ideas and good practice across the Council and provides a platform to develop projects and resolve issues across services. The group membership includes staff from

planning, housing, roads, economic development, architects, parks and burial grounds and strategic policy.

Staff attend biodiversity training opportunities provided by other organisations such as the Nature Scot Sharing Good Practice programme, and via professional institutes such as the Chartered Institute of Ecology and Environmental Management, Royal Town Planning Institute, Institute of Civil Engineers, Arboricultural Association, Tayside Biodiversity Partnership, Association of Local Government Ecologists and The Royal Highland Education Trust.

Fifty-five practitioners from Angus schools have taken part in local authority coordinated professional learning opportunities developed to improve confidence, knowledge and understanding of outdoor learning and Learning for Sustainability. This has been delivered in partnership with The One world Centre, Dundee.

2.6 Research and Monitoring

This section details research and monitoring activities undertaken to raise awareness and understanding of nature and biodiversity amongst Angus Council staff and in the wider community.

The status of biodiversity and activity on biodiversity conservation is monitored through:

- Extensive internal monitoring by the Tayside Biodiversity Partnership's Working Groups and regular reports on overall delivery of actions and targets.



- A programme of species monitoring, and survey work carried out by Council staff, volunteers and partners to provide the baseline data for indicators.
- Annual Reporting by the Parks and Burial Grounds Service.
- Angus Council Climate Change Public Bodies Duty reporting.
- Angus Council's Angus Community Plan 2017-30.
- Angus Council's Climate Change Member Officer Adaptation Working Group.

Citizen Science initiatives contribute to research and monitoring of species in Angus. Individuals, organisations and the Tayside Recorders Forum participate in the recording on many taxa for organisations including Butterfly Conservation, Buglife, Saving Scotland's Red Squirrels, Scottish Badgers, Scottish Wildcat Action, RSPB, Plantlife and Marine Conservation Society. At Angus Alive sites, Montrose Basin Local Nature Reserve, Country Parks and the Angus Glens research and monitoring is carried out regularly. Data is submitted to the relevant organisations. Examples include:

Glen Doll

Montane Willow

As part of the long-term strategy for the safeguard and enhancement of the rare native fauna in Corrie fee, all Red Data Book higher plant species and habitats are monitored to ensure the health of the populations and appropriate grazing pressures are maintained. During 2018/19 as a result of this monitoring the Royal Botanic Gardens of Edinburgh undertook intervention to increase the abundance of the Montane willow scrub (woolly and downy willow) in the National Nature Reserve. Local MSP Graeme Dey adopted the mountain willow and became its MSP "Champion".



Water Vole

Water vole have returned to Corrie Fee. With the use of predator control to eradicate mink, water voles are now thriving again in Corrie Fee after an absence of many years. A plan is in place to continue monitoring and recording their distribution with help from Cairngorm National Park Volunteers.

Scottish Wildcat

In 2018/19 with several partners including Scottish Wildcat Action, Wildlife Conservation Research Unit and Scottish Wildcat Action Plan Steering Group cat camera surveys were carried out in Glen Doll forest to establish the presence of wildcat. During this time contractors were able to trap one wildcat in Glen Doll (which was sampled and collared) and neuter four non-wildcats. Rangers continue to monitor the population.

Raptors

During 2018 -20 ongoing monitoring of golden eagles and peregrine falcons has recorded the successful fledging chicks.

Red Squirrel

Despite some problems due to tree felling and adverse weather conditions, a network of 12 transects 50 meters long by one-meter wide are in the process of being re-established throughout the Glen Doll forest to once again monitor the healthy population of red squirrels.

Pine Marten

From evidence of recorded scat counts on all trails and camera trap sightings the population of pine marten in the Glen Doll appears healthy. To augment this a pine marten box was erected to provide a haven, which is monitored throughout the year. It is used by pine marten all year round.



Butterflies

Due to involvement in the National Butterfly Monitoring Scheme, Glen Clova and Glen Doll have proved to be an ideal place to see many of Scotland's species of butterfly. To date 20 species have been recorded, including the rare mountain Ringlet and other notable species, including, Northern brown argus, speckled wood, scotch argus, green hairstreak, dark green fritillary and small pearl-bordered fritillary.

Montrose Basin Local Nature Reserve

The survey and monitoring of key site features and designated features for the SSSI which enables the site to be designated as a Local Nature Reserve include:

- Wetland bird surveys.
- Breeding Eider surveys.
- Goose surveys.
- National Icelandic-breeding goose census in co-ordination with Water and Wetlands Trust.
- National Swan Census.
- Rare bird sightings.

General wildlife observations and anecdotal observations of saltmarsh habitat are also helpful in understanding the ecology of and changing trends on the reserve.

Angus has no Local Records Centre so biological records are submitted to local County Recorders, national organisations (previously mentioned) and others including the National Biodiversity Network. Biological records in the Cairngorms National Park Area of Angus and in the north on the Aberdeenshire border are held by the North East Scotland Biological Records Centre. To address this Angus Council Planning and GIS team and partner organisations have created restricted view GIS layers for protected species including badgers and pine marten. Blue and Green network and potential Local Nature Conservation Sites are also included.

Angus Council were one of the 48 stakeholders to participate in the Scottish Biodiversity Information Forum's 'Review of Biological Recording Infrastructure in Scotland' in 2018.

Angus Council work with universities and colleges on survey and monitoring projects. The University of Abertay is involved in the River South Esk Catchment Partnership Biodiversity Challenge Fund project. The Rottal Burn site has been monitored by Abertay since 2012 and many other Angus rivers have been studied by students.

2.7 Biodiversity Highlights and Challenges

Highlights

Every action in this report is a fantastic achievement. The range of projects that improve habitats and ecological status, protect species, demonstrate leadership and expertise, facilitate partnership work and inspire action is extraordinary. Most are delivered with small or no budget at all and volunteer effort is invaluable. The Tayside Biodiversity Partnership state that 'Every Action Counts' and this could not be truer. Appendix 1 shows how the vast amount of work contributes to national and international targets. Angus Council and its many partners have played a role in delivering positive outcomes in the face of the '2020 Challenge for Scotland's Biodiversity'. Angus Council staff and elected members have embraced their Biodiversity Duty. This enthusiasm is clear in the work delivered in partnership with communities and across services.

In December 2019 the Tayside Biodiversity Partnership's project "Back from the Brink – Saving our Small Blue" won the much-coveted RSPB Nature of Scotland "Community Initiative Award". In the same week in London, the project achieved the Association of Local Government Ecologists' 25th anniversary "Local Government Biodiversity Project" Award.



The small blue (*Cupido minimus*) project was established as a five-year project in 2011 by the Tayside Biodiversity Partnership and Angus Council to conserve the UK's smallest butterfly's dwindling population. Working closely with the East Scotland Butterfly Conservation Branch, interest from local communities to increase and the project is now in its ninth year. With more than 40 organisations, community groups and individuals involved the project showcases how collaborative, community-focused conservation can succeed. Woodlands Primary School in Carnoustie Small Blue Species Champion's and are often joined in conservation activities by Angus Council Leader, Cllr David Fairweather, who is also the Small Blue Champion for Angus.

More than 85 volunteers have been trained to survey the butterfly and the extent of Kidney Vetch along the coast and 10 landowners are actively engaged in habitat management to safeguard the butterfly. Since 2015 over 500 specially grown kidney vetch plants have been planted at over 10 sites by some 100 community volunteers. This is increasing the extent of the important kidney vetch “corridors” much needed as food for the small blue caterpillars.

The project has not lost momentum and will be working closely in 2021 with the Species on the Edge project, a new partnership project with small blue being one of 40 priority coastal species. Surveying, monitoring and habitat enhancement continue and there are even plans to develop the ‘Small Blue Way’ an ambitious Angus coastal trail that will link conservation and tourism.

During the project hundreds of people, of all ages, have shared their enthusiasm and knowledge with many other unknown champions. Winning two national awards in the space of just one week shows the project can be used as an exemplar to help conserve many more Scottish species.



Challenges

The main challenges Angus Council may face over the next three years in delivering biodiversity focused action could include:

- Funding for projects.
- Resource and capacity to deliver e.g. staff.
- The outcome of BREXIT in relation to funding streams and policy development.
- Ongoing implications following the COVID19 pandemic.

3 Future Biodiversity Action

The key work areas for the next three years (2021 - 2023) will be:

- Angus Council staff will assist with the rolling out and monitoring of the actions listed in the 2nd Edition of the Tayside Local Biodiversity Action Plan 2016-26.
- The mainstreaming of the biodiversity process across Angus Council departments will continue with a targeted focus on currently underrepresented services.
- Supporting Species and Habitat Champions to encourage communities and businesses to focus on action for our priority species and priority projects.
- Designate and promote Local Nature Conservation and Geology sites.
- Identifying and designate green networks in Angus towns and across the county that contribute to ecological resilience.
- Continue to develop and implement nature-based solutions projects that address the climate and ecological emergency and aid in the need for a 'Green Recovery' which has become evident during the COVID19 pandemic.
- Encourage people to embrace biodiversity, be healthier and more active and 'Greener' by being involved with the natural world.

4 Conclusion

Angus Council is proud to raise awareness of local biodiversity and recognise its important role in shaping the character of Angus. Although an ecologically diverse county, nature needs a hand to become more resilient in the face of challenges including the climate and ecological emergency. Wherever possible the council strives to collaborate with the local community, neighbouring local authorities and other stakeholders to ensure that biodiversity can be enjoyed by all, for generations to come. Collating the range of work that is undertaken within Angus Council's many services and with partners, shows the vast range of activity teams facilitate as part of their regular work programme. Now in the third reporting period it is clear that in almost a decade tremendous progress has been made to mainstream the biodiversity process. This report demonstrates this and all that we are poised to achieve in the coming years.

Appendix 1

Angus Council Contribution to the 2020 Challenge for Scotland's Biodiversity

The following table indicates how Angus Council actions have contributed to the Scottish Government targets for the conservation and enhancement of biodiversity in Scotland the "2020 Challenge for Scotland's Biodiversity".

Chapter 1 Healthy ecosystems		
Targets	Delivery method	Evidence
(1.1) Encourage and support ecosystem restoration and management, especially in catchments that have experienced the greatest degradation	River South Esk Catchment Partnership Tayside Local Biodiversity Action Plan (TLBAP)	Biodiversity Challenge Fund project delivery 2019-20 TLBAP – Freshwater Ecosystems section delivery Supporting and promoting woodland expansion projects in South Esk catchment Engagement in Lunan Catchment Study Group
(1.2) Use assessments of ecosystem health at a catchment level to determine what needs to be done	River South Esk Catchment Partnership Catchment Management Plan 2 (to be published 2021)	Consultation responses Partner reporting Landowner engagement
(1.3) Government and public bodies, including SNH, SEPA and FCS, will work together towards a shared agenda for action to restore ecosystem health at a catchment-scale across Scotland	River South Esk Catchment Partnership Cairngorm National Park Authority - Joint Catchments Group	Regular partnership meetings Joint working or knowledge share with Spey, Dee, Tay and Tweed catchments Collaboration on funding bids.
(1.4) Establish plans and decisions about land use based on an understanding of ecosystems. Take full account of land use impacts on the ecosystems services that underpin social, economic and environmental health	River South Esk Catchment Partnership Catchment Management Plan 2 (to be published 2021) Tayside Local Biodiversity Action Plan Angus Sustainable Energy & Climate Action Plan (to be published early 2021)	Actions in all plans will be informed by the current and desired health of local ecosystems
Chapter 2 Natural Capital		
Targets	Delivery method	Evidence
NA	NA	NA

Chapter 3 Biodiversity, health and quality of Life

Targets	Delivery method	Evidence
(3.1) Provide opportunities for everyone to experience and enjoy nature regularly, with a particular focus on disadvantaged groups	Tayside Local Biodiversity Action Plan Angus Local Outcomes Improvement Plan School engagement strategies	Actions/strategic goals in both plans focus on social inclusion Ongoing projects/ award scheme participation
(3.2) Support local authorities and communities to improve local environments and enhance biodiversity using green space and green networks, allowing nature to flourish and so enhancing the quality of life for people who live there	Tayside Local Biodiversity Action Plan Angus Council Locality Plans Parks and Recreation and Angus Alive Rangers Service	Greenspace/network projects in Urban and farmland sections Locality Plans can deliver improvements in towns' e.g. The Inch, Brechin Environmental enhancements carried out in sites e.g. River Street Brechin
(3.3) Build on good practice being developed by the National Health Service (NHS) and others to help encourage greenspace, green exercise and social prescribing initiatives that will improve health and wellbeing through connecting people with nature	Tayside Local Biodiversity Action Plan Angus Local Outcomes Improvement Plan Angus Sustainable Energy & Climate Action Plan (to be published early 2021)	Actions included in Urban TLBAP section Project development and knowledge share with community planning partners e.g. Steps Tay Health, Active Travel Steering Group
(3.4) Increase access to nature within and close to schools, and support teachers in developing the role of outdoor learning across the Curriculum for Excellence	Angus Alive Rangers Service the Scottish Wildlife Trust and Angus Schools promote educational schemes, deliver educational visits/activities to Angus National and Local Nature Reserves Angus Species and Habitat Champions	Approx. 2,700 participants in educational outreach per annum in South Esk Catchment Angus schools participate in Eco-Schools and John Muir Trust schemes No of school champions
(3.5) Encourage public organisations and businesses to review their responsibilities and action for biodiversity, and recognise that increasing their positive contribution to nature and landscapes can help meet their corporate priorities and performance	River South Esk Catchment Partnership – edition 2 (to be published 2021) Tayside Local Biodiversity Action Plan Angus Sustainable Energy & Climate Action Plan (to be published early 2021)	Engaging with businesses and organisations to secure small-scale funding for community-based projects. Also providing opportunities for volunteer day activities In early discussions with partners to bring in private finance to fund nature-based solutions

Chapter 4 Wildlife, habitats and protected places

Targets	Delivery method	Evidence
(4.1) Ensure that the management of protected places for nature also provides wider public benefits	Local Nature Reserve at Montrose Basin and 3 Country parks	Management Teams and Action Plans in place Public engagement strategies and events held regularly Volunteering and learning opportunities provided
(4.3) Integrate protected areas policy with action for wider habitats to combat fragmentation and restore key habitats	Tayside Local Biodiversity Action Plan Identify, Create and Enhance Wildlife Corridors Actions within all sections of plan Local Nature Conservation Sites(LNCS)	Where possible enhance connectivity in development e.g. Angus Local Development Plan Policy PV1 Angus Open Space Audit LNCS designation process underway
(4.5) Involve many more people than at present in this work and improve understanding of the poorly known elements of nature	Tayside Biodiversity Partnership Tayside Local Biodiversity Action Plan Angus Recorders Forum	Running local citizen Science projects e.g. small blue butterfly and supporting and promoting partner projects e.g. Wildcat Action The Plan highlights a range of habitats and species across Angus and lesser known species The recorders forum values and promotes all taxonomic groups and encourages reporting to NBN etc.

Chapter 5 Land and freshwater management

Targets	Delivery method	Evidence
(5.1) Promote an ecosystem approach to land management that fosters sustainable use of natural resources and puts biodiversity at the heart of land-use planning and decision-making	Tayside Local Biodiversity Action Plan River South Esk Catchment Management Plan Angus Council Climate Change Member Officer Group	Actions across plan. An Ecosystems approach will be fundamental in the creation of a new catchment management plan Principals will be used in other Angus catchments where possible Best practice shared with elected members, services and communities
(5.2) Ensure that measures taken forward under the Common Agricultural Policy encourage land managers to develop and retain the diversity of wildlife habitats and landscape features	Tayside Local Biodiversity Action Plan River South Esk Catchment Management Plan	Ongoing work with agencies such as Scottish Forestry Scotland, National Farmers Union Scotland and Soil Association



Tayside Biodiversity Partnership

