



Fife Council Biodiversity Duty Report 2018 - 2020

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Introduction

Biodiversity is the variety of life on earth. It includes all of the living organisms around us such as plants, animals, fungi, invertebrates, and micro-organisms. It refers to the variety of habitats and ecosystems and the different ways in which organisms interact with one another and their environment.

Biodiversity is a fundamental part of our everyday lives. Our social, economic and emotional wellbeing depends on it. Biodiversity provides us with food, soil, fuel, clean water, health, wealth and other vital services. It enriches our lives and is part of our history and culture. High quality, biodiverse environments are better able to provide us with important services such as flood alleviation, pollution filtration, water purification, soil formation and pollination of our crops.

Pressures such as habitat loss and fragmentation, pollution, climate change and invasive non-native species mean we are losing biodiversity. As a result, action is required to protect and restore biodiversity locally and nationally.

The Nature Conservation (Scotland) Act 2004 places a statutory duty on all public bodies in Scotland to further the conservation of biodiversity when carrying out their responsibilities. This biodiversity duty is about connecting people with the environment and managing biodiversity in the wider environment all around us, not just in specific protected sites. It seeks to secure the public sector's commitment and good practice towards the environment so that this can inspire people across society to take active care of nature whilst carrying out their normal duties.

The Wildlife and Natural Environment (Scotland) Act 2011 further requires public bodies in Scotland to provide a publicly available report, every three years, on the actions which they have taken to meet this biodiversity duty.



Fife Council Biodiversity Duty Report 2018 – 2020

This report outlines how Fife Council has worked to further the conservation of biodiversity in line with its duty under the Nature Conservation (Scotland) Act in the three-year period between 2018 and 2020. It is structured in accordance with reporting guidance available at the time of reporting.

1. Introductory information

1.1 An overview of Fife Council's regulatory role

As a local authority, Fife Council is responsible for providing a range of public services including education, social care, roads and transport, economic development, housing and planning, environmental protection, waste management, and cultural and leisure services.

Fife Council is structured into four main directorates, each led by an Executive Director joining the Chief Executive to form the Council Executive Team responsible for translating the Council's policies and plans into action. Arm's Length External Organisations provide waste and resource management, sport and leisure, golf, countryside and cultural services.

At the time of reporting the council's committee model is comprised of: Fife Council; Policy & Coordination; Assets & Corporate Services; Community & Housing; Education & Children's Services; Economy, Tourism, Strategic Planning & Transportation; Environment, Protective Services; Health & Social Care Integration Joint Board; Regulation & Licencing; Fife Planning Review Body; Superannuation Fund and Pensions; Rates Appeal; Community Empowerment Act Review. There are also seven Area Committees, three scrutiny and audit committees, two planning committees and two Common Good sub-committees.

The Fife Partnership Board is the community planning partnership for Fife. It provides strategic leadership to community planning, overseeing partnership activity to support the delivery of its agreed vision and outcomes, as set out in the new Plan for Fife, Fife's Local Outcome Improvement Plan 2017–2027, previously Fife's Community Plan and Single Outcome Agreement. The group is comprised of representatives from Fife Council, health and social care, police, fire and rescue, voluntary sector, government, transport, department of work and pensions, skills development and academic institutions.

The [Plan for Fife Local Outcome Improvement Plan 2017-2027](#) was approved by the Fife Partnership Board in November 2017. The plan has a strong focus on addressing inequalities and four key themes direct the work of the Partnership: opportunities for all; thriving places; inclusive growth and jobs; community-led services. The Plan also details how people and communities are engaged in decisions on the public services which affect them. It also serves as the Fife Council Plan and sits alongside Fife's Local Development Plan (FIFEplan), which covers spatial and physical planning issues, and the Climate Change Strategy, which sets out how to address climate change and its likely impacts.

The Plan for Fife builds on previous work undertaken to deliver [Fife's Community Plan 2011-2020](#), which set out long term ambitions for the Kingdom including: reducing inequalities, increasing employment, and tackling climate change. [Fife's Strategic Assessment](#) published in February 2017 provides the evidence base for identifying priorities across Fife and those facing the seven committee areas. These priorities helped to inform the plan and were recently updated to inform future work plans and provide a solid foundation for work at a local and Fife-wide level. The Plan for Fife will continue to recognize environmental considerations, as required by the Environmental Assessment (Scotland) Act 2005. The Fife Environmental Partnership currently leads on the actions within the Strategic Environmental Assessment.

The Plan for Fife is currently being revised in order to update its three-year actions and to take account of reform and recovery priorities as Fife begins to emerge from the COVID-19 pandemic. The role of biodiversity and greenspace will feed into this review, as identified by the Fife Strategic Assessment.

1.2 How biodiversity feeds into Fife Council's decision-making structure, including initiatives, groups, staff, responsibilities and roles linked to biodiversity conservation.

The [Fife Environmental Partnership](#) was formed by the Fife Partnership to lead on both enabling delivery and providing scrutiny of climate change and environmental work in Fife. Currently chaired by Fife College and previously by Scottish Natural Heritage (2018-2020), the group is responsible for the strategic direction to protect and enhance Fife's environment in a sustainable manner to pass on to future generations. Membership includes Fife Council, Scottish Environment Protection Agency, NatureScot, Forestry & Land Scotland, NHS Fife, Fife Coast & Countryside Trust, Scottish Water, University of St Andrews, Fife College, Scotland's Rural College – Elmwood Campus, Resource Efficient Solutions (Fife Council), Kingdom Housing Association, Ore Valley Housing Association, Central Scotland Green Network, Fife Voluntary Action, Fife Climate Change Action Network, and Greener Kirkcaldy.

The Plan for Fife set a target to deliver a Sustainable Energy and Climate Action Plan for Fife. A key focus is '...making the most of Fife's valuable local landscapes, heritage and

biodiversity [including Fife's green and public spaces], and meeting challenges of climate and economic change.'

Climate Fife, Fife's Sustainable Energy Climate Action Plan, was approved in February 2020. The vision is for Fife to be:

- **climate friendly**, having transformed the economy, infrastructure, land use and energy system to decarbonise how we live;
- **climate ready**, with plans and projects to increase the resilience of Fife communities and the economy to help minimise the impacts from unavoidable climate change; and
- **climate just**, ensuring that all Fifers and the Fife environment can benefit from this transition.

Climate Fife action is guided by eight themes: energy efficiency; low carbon energy; move, store & transform energy; sustainable travel; resource efficiency; carbon sequestration, adaptation; and innovation and coordination.

Fife Resource Solutions co-ordinates the Fife Environmental Partnership and delivers resource management services for the council including waste, recycling, energy and carbon. Fife Resource Solutions were keen advocates for strong environmental outcomes within the Plan for Fife, including a range of biodiversity and climate change indicators and objectives such as:

- implement alternative, low-impact management models for parks and greenspaces;
- Implement a programme of sustainable management for Fife's woodlands
- expand the coverage of Fife's woodlands in order to improve biodiversity, reduce flood risks, provide carbon sinks, produce local biomass energy, diversify the local economy and decontaminate old industrial sites.
- implement measures to improve access to green recreation and play space, especially in more deprived communities, in order to maximise health, education and biodiversity benefits, and support initiatives that reduce social isolation.

In all the Council's committee meetings, councillors vote on issues, agree on plans to help Fife Council meet its aims and objectives, and receive regular reports from all Services to assess how well Fife Council is meeting these. Two strategic committees have specific functions regarding the environment: Communities & Housing and Environment & Protective Services.

On 26 September 2019, Fife Council declared a climate emergency for Fife. This is a public commitment to de-carbonise as rapidly as possible, and Fife set a target for net-zero greenhouse gas emissions by 2045 at the latest. This recognizes the urgent need to prevent ecosystem and socio-economic collapse.

The Fife Biodiversity Partnership, which steers development and delivery of the [Fife Local Biodiversity Action Plan](#), includes representation from the public, voluntary and private

sectors, academic institutions, specialist and community groups, as well as two elected members appointed by Fife Council as spokespersons for biodiversity. Fife Council has acted as Secretariat to the Fife Biodiversity Partnership since the first Local Biodiversity Action Plan was published in 1997, and co-ordinates the work of the Plan.

FIFEplan (Fife's Local Development Plan) was adopted on 21 September 2017. It sets out the planning policies and proposals for the development and use of land across Fife. The focus now is working with the development sector, communities and other stakeholders to deliver the plan's proposals for new development and the infrastructure for growth.

The plan includes policies which seek to protect habitats and species and enhance biodiversity. This includes Adopted Local Plan Policy E23 (Protection of Biodiversity), as well as Proposed FIFEplan Policy 13 (Natural Environment and Access), which state that all development should enhance and protect natural heritage. In particular Policy 13 (Natural Environment and Access) states that proposals will only be supported where they protect and enhance natural heritage assets and access. This applies to all biodiversity in the wider environment (for example woodlands, trees and hedgerows) and green networks and greenspaces.

The plan also includes green network priorities for many development sites which provide site-specific green network requirements including biodiversity. FIFEplan is supported by approved supplementary planning guidance Making Fife's Places which provides more detail on green networks, natural heritage assessments and enhancing biodiversity as part of new development. The Planning service utilises data from Fife Nature Record Centre to help inform assessments and decision-making.

Fife Council directly employs the following staff with biodiversity in their remit:

- A Biodiversity Team comprised of 4.5 full-time equivalents to the end of 2019, 2.5 full-time equivalents thereafter, responsible for mainstreaming biodiversity across the Council, co-ordinating implementation of the Fife Local Biodiversity Action Plan, running Fife Nature Records Centre, undertaking projects to improve local authority land and Fife's wider environment for biodiversity – often through partnerships, and undertaking educational initiatives in parks and greenspaces.
- An Ecological Assistant was appointed in January 2019 for a two year period with the remit to survey and re-assess local Wildlife Sites.
- A dedicated natural heritage officer within the Planning service;
- A Greenspace Officer who co-ordinates delivery of the Fife Greenspace Strategy;
- An Allotments Officer who co-ordinates delivery of the allotments strategy, which includes enhancing community growing spaces for biodiversity;
- Park management and development staff who deliver biodiversity enhancement work across Fife through project delivery and park development plans.

Fife Council runs Fife Nature Records Centre, the region's biological records centre, which collates information on species, natural heritage sites and habitats and delivers an information request service. This resource is available for use in the decision-making process and to ensure impact on biodiversity is considered. During the reporting period,

128 formal data requests were submitted to Fife Nature Records Centre, and several informal queries also received.

Fife Council contributes core funding and is represented by elected members on the Board of Directors of Fife Coast & Countryside Trust, Fife Golf Trust, Fife Sports & Leisure Trust and Fife Cultural Trust, Arm's Length External Organisations set up as non-profit making companies with charitable status.

- Fife Coast & Countryside Trust undertakes a range of countryside activities and biodiversity functions across the Kingdom on behalf of the local authority and its partners. The organisation's outputs are agreed in a Service Level Agreement. Fife Coast & Countryside Trust is a key member of the Fife Biodiversity Partnership and plays an important role in delivery of the Fife Local Biodiversity Action Plan.
- Fife Coast & Countryside Trust operates to a Strategy that recognises:
 - "the importance of natural places and our obligation to preserve them for their own sake..."
 - "access to nature provides essential benefits"
 - "the outdoors is for all"
 - And commits the organisation to providing an "exemplary model of... conservation management"
- Fife Coast & Countryside Trust is committed to the values of the Plan for Fife relevant to its objectives as laid out in its articles of association. This includes caring for "high quality natural spaces that benefit biodiversity as well as people's health and wellbeing". Specific relevant objectives include:
 - "...providing, developing and improving the facilities which support access to the countryside, biodiversity and wildlife..."
 - "...encouraging informed public access to the countryside, biodiversity and wildlife..."
 - "To advance environmental protection and/or improvement through the conservation, preservation and general improvement of the countryside and the landscape..."
- Fife Coast & Countryside Trust contributes at an executive and Board level through membership of the Fife Environment Partnership group as well as sitting on the Leven Programme Executive Board and various working groups including the Nature Rich Leven Working Group.
- Fife Golf Trust manages Fife Council's seven municipal golf courses. The Board agreed on a strategic objective for Fife Golf Trust to achieve the internationally-recognized 'GEO Certified' environmental and sustainable accreditation. This is administered by GEO Foundation, an independent non-profit organisation dedicated to providing a credible and practical sustainability system for golf. Certification was achieved in March 2017, and Fife Golf Trust has since strived to continually improve the environmental quality of its courses. Fife Golf Trust is also a delivery partner in the Fife Local Biodiversity Action Plan through its habitat enhancement and creation initiatives.
- Fife Sports and Leisure Trust recognize their duty to support Fife Council in their environmental and biodiversity initiatives.

1.3 Examples where staff have promoted biodiversity initiatives.

Quarterly Fife Environment Partnership meetings provide opportunities for presentations and workshops that highlight local biodiversity opportunities and action. A 'Nature' sub-group was established in 2020 to steer and consider biodiversity opportunities in meeting Fife's climate change strategy.

In 2018, Fife Resource Solutions worked with Adaptation Scotland on 'Levenmouth Adapts' projects, looking at risks, vulnerabilities and solutions to climate change impacts at a local level. This included the role biodiversity can play to minimise impacts.

The Local Development Plan team has ensured that [green networks](#) are included as an important consideration for all new developments in the Local Development Plan. Green networks in Fife's towns and villages were mapped, showing assets and potential for enhancement. A database was compiled of all projects – community and organisation-led - which contribute to enhancing Fife's green networks, and these were made available online to encourage people to contribute to these.

The Biodiversity Team:

- manned stands and displays at a range of venues and events promoting Fife Nature Records Centre, the Fife Local Biodiversity Action Plan and associated biodiversity projects.
- undertakes a suite of events annually including practical conservation days to protect and enhance habitats, bioblitzes, wildlife identification workshops, bat and fungi walks, and awareness raising through attendance at other events.
- helped raise awareness internally and externally about the threat, identification, treatment and importance of recording invasive non-native species.
- Give regular illustrated talks on the Fife Local Biodiversity Action Plan and work of Fife Nature Records Centre to community groups and organisations such as Fife Community Climate Action Network, The Ecology Centre and Pitcairn Society.

The Golf Courses Manager of Fife Golf Trust and Biodiversity Co-ordinator were invited to give a joint presentation at the British and International Golf Greenkeepers' Association conference in February 2018 to discuss partnership working to achieve mutual environmental objectives through 'GEO Certified' accreditation and the Fife Local Biodiversity Action Plan. The manager continues to promote the importance of habitat creation and enhancement and sustainable management of the seven municipal courses amongst staff and Board members.

Health and Social Care's care homes replacement programme includes biodiversity as a strong consideration in the design of new care homes, from incorporation of roof tile nest boxes to the provision of high quality outdoor spaces with habitat which offer amenity value to residents as well as attracting a wide variety of wildlife.

Fife Coast & Countryside Trust's Chief Executive sits on the Fife Environmental Partnership and Leven Programme Executive Board, as well as representing environmental and biodiversity issues on the Fife Tourism Executive Board. The Trust's Head of Development sits on multiple working groups, including the Leven Programme to promote the organisation's values on biodiversity. The Countryside Rangers regularly promote and report on biodiversity initiatives, for instance through the Eden Estuary newsletter and annual report and Lomond Hills Regional Park project reports.

The Grounds Maintenance Service is undertaking Fife-wide consultation on naturalising a proportion of greenspaces through a more sustainable grassland management strategy. Consultation was undertaken with elected members, and a public consultation was launched in November 2020. This will give members of the public an opportunity to influence decisions on where in their local greenspace they would like to see more sustainable grassland management. The multiple benefits of this change in management for biodiversity, habitat connectivity, reduced carbon emissions and climate adaptation are promoted through the initiative, as well as the increased opportunity for people to connect with nature. Information is also made available about how homeowners and communities can further enhance biodiversity. The intention is to reduce areas of closely-mown amenity grass by around 10%, and for long grass areas to be managed annually in accordance with meadow management best practice in order to maximise biodiversity benefits of the new habitat.

Park managers and development officers promoted and supported initiatives and campaigns including the Keep Scotland Beautiful Green Flag Award (awarded to seven parks in 2018, three in 2019), Beautiful Scotland, Beautiful Fife and Britain in Bloom, all of which encourage biodiversity improvements to parks and greenspaces.

The Greenspace Officer reports regularly to all seven Area Committees on greenspace enhancement projects which benefit biodiversity.

The Allotments Officer continues to promote at a regional and national level the importance of community growing spaces for biodiversity and how allotments can be enhanced for wildlife.

The Safer Communities team run the 'Meet Up, Clean Up' campaign which brings the council, communities, local groups and businesses together in an effort to eliminate litter in Fife's streets, parks and countryside. The initiative supports community clean-ups by providing all the equipment needed for a successful litter pick as well as an uplift service.

The Street Cleaning Service will develop a better interface with all Voluntary Groups engaged in litter control with a view to ensuring that the maximum community benefits are achieved.

2. Mainstreaming

Fife Council has taken numerous steps to incorporate biodiversity into areas of policy, strategies and initiatives.

The [Plan for Fife](#) has through its 'Thriving Places' priority theme committed to improving the Kingdom's environment with an appreciation of the multiple benefits. Thriving places are "...where people can live long, happy and fulfilling lives; and places that people want to live and invest in....making the most of Fife's valuable local landscapes, heritage and biodiversity".

The [Fife Tourism Strategy 2014-2024](#) recognizes the importance of environmental sustainability and advocates working jointly with Fife Coast & Countryside Trust, Scottish Natural Heritage, RSPB and others, to protect Fife's outdoor assets through careful promotion and appropriate maintenance.

Fife Council acts as Secretariat to and is a key partner in the [Fife Biodiversity Partnership](#). The council has produced a [Fife Local Biodiversity Action Plan](#) since 1997, to set out nature conservation priorities and projects identified by the Fife Biodiversity Partnership who steer development and lead on delivery. The Partnership is awaiting publication of the new national biodiversity strategy, delayed to 2022, in order to review the current 2013-2018 edition and ensure it aligns with national priorities. In the meantime, the current edition continues to be a live, working document.

The [Fife Greenspace Strategy 2011-2016](#) aims to increase access to quality, life enhancing greenspace. One of the objectives is to increase the amount of Fife Council land managed for biodiversity.

The [Climate Fife – Sustainable Energy and Climate Action Plan](#), is Fife Council's Climate Change Strategy. It highlights the role of biodiversity in tackling climate change, particularly in adaptation and sequestration.

The [Fife Council Allotments Strategy 2018-2023](#) integrates biodiversity into community food growing policy, with specific objectives to improve biodiversity and connectivity and to promote benefits of pollinators and wildlife. In order to help achieve this, a proportion of the allotment management budget has been set aside for biodiversity projects since 2015.

[Fife Forestry & Woodland Strategy 2013–2018](#) aims to protect and enhance the environmental quality of Fife's woodlands and forests, and supporting biodiversity is one of its key priorities. Fife Council is undertaking a woodland expansion project and bringing its woodlands into better management, aiming to provide multiple benefits, one of which is enhancing biodiversity.

Fife Council's Access Team continue to lead on the delivery of the [Fife Access Strategy 2006-2016](#). "Safeguarding and improving the environment" as one of five themes and objectives, along with health and wellbeing.

The second edition [Fife Shoreline Management Plan](#) was completed in 2011 and sets out Fife Council's policies for managing 179km of coastline. The Plan aims to deliver the greatest environmental, social and economic benefit, consistent with the Government's sustainable development principles. It takes into account natural coastal processes and environmental considerations.

Planning Service:

- The FIFEplan Local Development Plan ensures that [green networks](#) and biodiversity are included as important considerations and an integral part of the design process for all new developments.
- Planning webpages on Fife Council's website provide information to applicants on the policy requirements for natural heritage and biodiversity. Links are provided to guidance and sources of information to help ensure that biodiversity is protected and incorporated into design.
- Early preparation work is being undertaken for the review of FIFEplan. The natural environment and biodiversity will be a thread throughout the plan along with climate change and health and wellbeing. The Planning Service will work together with other council services, key agencies and groups to seek to address the complex issues coming together at this time and produce a flexible and adaptable plan, able to deal with changing circumstances.
- The supplementary planning guidance Making Fife's Places will be reviewed as part of the FIFEplan review process.

Fife Resource Solutions:

- has its own environmental policy which states that the organisation "will...seek to minimise the adverse impacts of activities on biodiversity and the built environment"
- In 2019, produced the Fife Environmental Assessment Tool (FEAT) for Fife Council. This tool imbeds environmental assessment as part of the policy making process, and includes biodiversity as one aspect of this.
- In 2020, produced 'Climate Fife – Sustainable Energy and Climate Action Plan', the local authority's Climate Change Strategy, under the EU Covenant of Mayors which will be used to guide adaptation and mitigation to climate change in Fife for the next five years and to ensure that the Council plays its part in achieving national climate change targets. The adaptation section recommends how best to integrate biodiversity, community food growing, blue green infrastructure, reforestation, pollinator-friendly planting, and improving habitat connectivity into adaptation planning for Fife.
- Work with Property Services and client services, such as the Education Estate, to help mainstream sustainable and green building solutions - such as rainwater recycling, green roofing, passive solar design, building integrated renewables and biomass heating - when designing new council assets so as to reduce their negative impacts on the environment and maximise their potential to enhance the natural environment.
- Reviewed the existing council Zero Waste Strategy and produced the Resources Strategy and Action Plan (2018-2028), which sets waste management policy direction for the next decade and seeks to significantly increase recycling rates,

promote a circular economy and minimise waste sent to landfill. The Strategy was subject to Strategic Environmental Assessment and one of the key assessment objectives was to “ensure the maintenance or (where possible) enhancement of biodiversity, and avoid damage to designated wildlife sites and protected species from waste management activities.”

Fife Environmental Partnership:

- provides input to documents such as the revision of the Plan for Fife and ‘Climate Fife’, and is linking climate change action to the green recovery.
- In response to the Committee on Climate Change letter ‘Building a resilient recovery’ to the Scottish government, the Partnership initiated a nature working group to strengthen this theme within the COVID-19 response, such as opportunities for tree planting, carbon sequestration and widening opportunities of green space.
- Preceding ‘Climate Fife’, the Climate Change Strategy 2014-2020 had four medium-term outcomes, one of which was to ensure that Fife’s ecosystems are used sustainably and strengthened. It supported delivery of the target to plant 100 ha of new woodland in Fife, originally set out in the Fife Forestry and Woodland Strategy 2013-2018, and management of Fife’s Sites of Special Scientific Interest to improve their condition and contribute to the National Performance Framework target of 80% of sites in favourable condition.

Fife Nature Records Centre services are available to all, and the centre is regularly consulted externally for information on species, natural heritage sites and habitats. This information can be used to inform policies, strategies and initiatives as well as research and work on the ground. A total of 155 formal requests were received in the reporting period (as at 8/10/2020) by organisations or individuals external to Fife Council, including environmental consultants, NatureScot and academic researchers.

Fife Coast & Countryside Trust operation of facilities and Maintenance Teams are all tasked through operating procedures and risk assessments to consider the impact of work on biodiversity and the environment. Liaison within Fife Council to provide support and advice on biodiversity.

Fife Golf Trust has since its ‘GEO Certified’ accreditation continued to mainstream biodiversity in golf course management. A ‘nature’ social media group was set up for greenkeepers working at the seven municipal courses so that wildlife sightings and habitat work can be shared.

The Harbours, Flood and Coast team are undertaking a number of flood studies, all of which at least consider Natural Flood Management options for reduction of flood risk.

Roads & Transportation:

- All schools within Fife are encouraged to develop and implement a School Travel Plan which identifies how pupils travel to school, why they travel this way and what can be done to encourage more active travel. This in turn reduces the number of cars being used for smaller journeys and consequent emissions.

- The Light Fife Green Policy promotes the use of energy efficient street lighting equipment, reducing energy consumption and associated carbon emissions and minimising light pollution.
- Fife Council is supporting the change to Low Emission Vehicles by continuing to expand the public network of electric vehicle chargepoints across Fife. The network currently consists of 7 rapid chargers, 6 22kW chargers and 28 7kW chargers. The network usage increases year on year.
- Fife Council was the first Local Authority in Scotland to write a travel plan in 1999. The Travel Plan today is an evolving document hosted online for Fife Council staff on our corporate intranet, and for the public on the Fife Direct website. It includes travel to work options, information about the cycle to work scheme, trip-sharing and car sharing, advice on business travel advice and how to get to Fife Council premises using public or active transport methods. Bespoke 'mini travel plans' are available on this website for all of the main Fife Council offices.
- Bikeability is the Scottish Cycle Training Scheme for school pupils aimed at P4s to S2s. Level 2 covers the rules of the road and basic skills for riding on road and is by volunteers under the Fife Council Bikeability Co-ordinator.
- Fife Wide Bicycle Counts Comparison of Permanent Sites shows that there are 36 permanent sites in Fife (32 in 2016) which are used to give an indication of the number of people cycling in the region. These sites are active all year round.
- Development of active travel networks to encourage walking and cycling: in 2019, increased the traffic-free shared use Cycle Network by 1 mile and the off-road network by 2 miles; the total length on road was 402 km/250 miles; total length on road cycle lane 25 km/15 miles; total length traffic free rural route 14 km/9 miles; total length traffic free shared use 316 km/196 miles.
- The frequency of winterisation activities is recorded, allowing a year to year comparison of how winter weather has changed and encouraging more efficient use of salt and grit on the road network.
- To encourage sustainable travel, the council subsidises commercial passenger transport (bus routes), provides accessible transport for vulnerable residents (Fifebus), contracts bus and taxi transportation for school children, and administers the Concessionary travel bus-pass scheme.

Property Services:

- promoted biodiversity opportunities with the project and client team. For example:
 - on larger Education Service project sites, areas of landscaping are set aside and prepared so that they can be developed for biodiversity as part of the school curriculum and learning experience.
 - within new care home projects, planting of orchards, hedgerow boundaries, areas of wildflowers and grassland, and incorporation of biodiversity into Sustainable Urban Drainage provision.
- worked alongside Economic Development to establish a new business unit as part of the Flemington Road City Deal which included protection of existing habitat during construction to form a wildlife corridor connecting existing tree belts adjacent to the site.

- The Energy Management team sponsor several carbon saving projects via Property Service's Revolving Fund, including two biomass systems supporting the district heating scheme in Dunfermline.
- Glenrothes Energy Network commenced operation on 1 April 2019. It uses steam from the RWE Markinch Biomass Plant to provide low carbon heat to properties in central Glenrothes. These include sheltered housing, a theatre complex and the council's headquarters. Heat is supplied via an energy centre at the Markinch plant, comprised of pumps, controls and steam heat exchangers. The district heat network is a 6.5 km highly-insulated pipe network with heating substations providing heat and hot water in buildings. The connected properties are now heated entirely from renewable sources.

Education Service:

- Mainstreaming and continued awareness raising is delivered through the National STEM Education and Training Strategy for Scotland agenda and EcoSchools initiatives. Fife Council seeks to include the natural environment in education initiatives.
- The Natural Connections outdoor learning programme is designed to support and increase the number of schools providing regular opportunities to learn outdoors, and can also be adapted to work with community groups.
- The specialist Outdoor Education Team based at Lochore Meadows Country Park provides an extensive programme of outdoor learning and activities for all ages.
- Nursery education in Fife continues to focus on outdoor learning, and the well-established Forest and Beach kindergarten programmes are continuing to deliver a high-quality experience for children. The nursery extension completed in 2019 at Capshard Primary School incorporated an 'outdoor classroom' as part of its design and there have been continued improvements to outdoor spaces across nurseries in Fife. In addition, the Early Years Team is continuing to identify suitable sites for fully outdoor nurseries. Following on from a review of numbers, Fife Council continues to develop sites at both Pittencrieff Park and Calais Muir Woods in Dunfermline, and these are due to open in August 2021.

Fleet:

- joined the ECOSTars Fleet Recognition Scheme in 2014 and pledged to improve its vehicles and operational practices to be cleaner and more efficient. Fife Council were awarded a five-star rating in 2017 and have been continually improving by introducing low carbon vehicles to the fleet. Advantages include reduction in air pollution (NO₂, PM₁₀), reduction in CO₂ emissions, meeting EU and National Local Air Quality Management targets, improved public health, economic efficiency and good communications with members. Membership figures in Fife in February 2020:
 - Commercial Fleet: 205 members, 8280 vehicles.
 - Taxi and Private Hire: 67 members, 365 vehicles.
- the service runs a green accreditation scheme for taxis which drivers can buy into.
- The eFife fleet includes 38 electric vehicles and 19 plug-in hybrids. The charging network in Fife means vehicles are never more than 10 miles from a charge point.
- The Fife Council fleet from 1 April 2019 to March 31st 2020:
 - Diesel reduction of 165,943 litres in comparison to previous year 2018/19
 - Gas Oil reduction of 85,152 litres in comparison to previous year 2018/19

- Petrol increase of 18,853 litres in comparison to previous year 2018/19
- Total reduction in emissions 623.7 (tCO₂e)

Procurement recognises its responsibility to carry out its activities in an economically, environmental and socially responsible manner and is keen to minimise environmental impact of its procurement activities.

- Fife Council's Procurement Strategy includes a commitment to purchase goods, materials and services that minimise or reduce the impacts of its activities on the local and global environment, including whole life costing, energy efficiency, supply chain management and sustainably-sourced products.
- Procurement works with other services to develop contract terms and procurement award criteria.
- The Scottish Government's 'Procurement Journey' is utilised as best practice guidance. Mainstreaming these principles will contribute to compliance.
- The service is considering extending membership of its Sustainability Working Group beyond Corporate Procurement to Property, Building Services, Transportation, Economic Development and others.
- Launch in Corporate Procurement of the new online Sustainability Tools.
- All transport contracts require membership of the ECO Stars Fleet Recognition Scheme.
- The Sustainability Test must be completed as part of the Procurement Strategy Report process to ensure issues including the following have been taken into consideration:
 - Biodiversity enhancement
 - Scarce or unsustainably procured materials
 - Biosecurity protection
 - Impact on Scotland's protected areas
- Tender templates state that: "the Tenderer must take all reasonable steps to provide products and services that are designed with the climate emergency, safety, and sustainability in mind and minimise the environmental impacts that arise from their manufacture, delivery, use and disposal.
- Fife Council considers and supports within its procurement activity, as examples,:
 - the use of whole life cost where appropriate;
 - the use of Sustainable Procurement Duty Tools that aid the prioritisation of sustainability to achieve maximum benefits and prioritise and focus on those categories of spend that offer the greatest potential sustainable outcomes;
 - The environmental impact of construction projects, including specifying high Building Research Establishment Environmental Assessment Methodology (BREEAM) ratings for sustainable design and construction;
 - Encourage recycling and reuse of materials through waste management plans in order to minimise waste to landfill;
 - The use environmentally friendly chemicals,
 - Maximise use of materials from sustainable sources; and

- The procurement function has established a workstream to support Sustainable Procurement activity with scope and actions to formalise and embed the above throughout the Council.

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3. Actions taken to improve biodiversity conservation

Many of the practical conservation projects listed below either contribute to objectives within or are specifically listed in the Fife Local Biodiversity Action Plan 2013-2018, and have been delivered through a range of partnerships. Projects have been listed under the lead service.

Communities & Neighbourhoods:

- The current [Fife Local Biodiversity Action Plan 2013-2018](#) contains 200 actions led by 27 partners. The plan aims to protect and enhance biodiversity for its intrinsic value as well as for the health, wellbeing and enjoyment of the people of Fife. The Partnership is awaiting publication of the new national biodiversity strategy, delayed to 2022, in order to review the current edition and ensure it aligns with national priorities. In the meantime, the current edition continues to be a live, working document.
- Fife Council has an ambition to create 100ha of woodland on local authority land by 2028. In November 2020, contractors were appointed to create 30ha of new multi-functional woodland at Minto, a former colliery between Cardenden and Lochelly. Local schools will also be engaged through tree planting events.
- The Lyne Burn Green Network Project is a partnership between Fife Council, Scottish Environment Protection Agency and NatureScot to enhance a key green corridor through river restoration, greenspace improvements and habitat creation in an area of multiple deprivation with below average quality greenspace in central Dunfermline. A £1.6 million grant was awarded by Water Environment Fund for the river restoration works, and a feasibility and optioneering study was completed. Conditional grant funding of c. £660,000 was also awarded by Green Infrastructure Strategic Intervention for creation of a 'riverside park' across 19 ha of public greenspace including the Rex Park, Lyne Burn Park and Touch housing scheme. This includes an extensive community engagement programme.
- In partnership with Scottish Environment Protection Agency and with grant funding from their Water Environment Fund, a feasibility and scoping study was undertaken to investigate restoration opportunities for a 6km length of the heavily-engineered Back Burn, which flows from north Glenrothes to Markinch. A range of ecological restoration options were identified, and are being further developed through a 'concept and developed design' study in 2020/2021, which will include landowner and stakeholder consultation, and is funded by Water Environment Fund and Central Scotland Green Network Development Fund. The Back Burn Restoration Project will aim to create a multi-functional blue-green corridor to enhance amenity, greenspace, access and active travel, habitat, and engagement opportunities along the river.

- Similarly, the River Leven Restoration Project is investigating options to restore the ecology and morphology of a length of river between Windyates and Leven, whilst providing improved amenity, access and active travel, and engagement opportunities. A feasibility and scoping study was completed in March 2020 and concept and developed design study commissioned in November in partnership with Scottish Environment Protection Agency and funding from Water Environment Fund. This project sits within the wider Leven Programme (see Partnerships in section 4.1).
- The Wildlife Site project commenced in January 2019 with the appointment of an Ecological Assistant to resurvey and reassess Fife's 83 Wildlife Sites. These non-statutory designations contribute to nature conservation in Scotland alongside statutory protected areas. Fife's Wildlife Sites were last surveyed by Scottish Wildlife Trust in the 1990s and early 2000s. It is important to determine how the sites have changed over time and whether they are still locally important areas for biodiversity. The project has involved information gathering, establishing ownership, working with other organisations such as Botanical Society of Britain and Ireland and Scottish Wildlife Trust, advising volunteers, conducting habitat surveys and developing a robust methodology for the reassessment process. Each site is being assessed using specific criteria including rarity and diversity of species, naturalness, extent and rarity of habitats, connectivity to a habitat network and social factors relating to the site. Since the project started, 50 sites have been surveyed (much of the 2020 survey season impacted by COVID-19 restrictions.)
- Fife Council is working to bring its Sites of Special Scientific Interest into favourable condition. With volunteers, work has been underway to restore coastal grassland habitat at St Andrews-Craig Hartle, involving biannual bracken and scrub control events with volunteers. After seven years, this has greatly enhanced a 4,500m² area. Fife Coast & Countryside Trust manages three Sites of Special Scientific Interest on behalf of the local authority. At Dalbeath Marsh, significant improvements were made in meeting all but one of the targets.
- Five top-scoring woodlands in Fife Council's woodland audit were selected to take forward for Woodlands In and Around Towns funding to improve access, amenity, biodiversity and forestry opportunities. Management Plans were created and community consultations held. Woodland management work has been completed at four woods in Valleyfield, Oakley, Kirkcaldy and Ballingry.
- At Letham Glen, Leven, a pond restoration event took place through Froglife's Scottish Dragon Finder Project with engagement of local community groups and volunteers. Tree thinning works took place to reduce shading to the pond, and bird and bat boxes erected within the park.
- Created an orchard of 60 heritage fruit tree varieties at the new Glenwood allotment site in Glenrothes, and worked in partnership with Kelty Greening Group and primary school children to create a small orchard at Kelty allotment's wildlife garden.
- Regular events are held with community groups, schools and partner organisations to create, improve and connect habitat at locations across Fife. Examples include:
 - Pond restoration at Cupar's Riverside Walk with Fruit And Blossom group, Fife Amphibian & Reptile Group and Fife Golf Trust, who assisted by providing a digger and driver to remove areas of encroaching vegetation.

- Buckhaven Foreshore through tree planting, wildflower meadow creation and reduced grass cutting, a community aspiration identified through a charette process.
- A tree planting event in partnership with Woodland Trust Scotland at Formonthills Community Woodland, including the planting of 240 aspen, a priority species within the Fife Local Biodiversity Action Plan.
- A pond restoration event with volunteers in Riverside Park, Glenrothes, through the Access All Areas event co-ordinated by Fife Coast & Countryside Trust to engaging people with the countryside.
- Supporting community-led wildflower meadow creation, for instance 600m² at the village green in Colinsburgh, 450m² along Hospital Hill in Dunfermline, 500m² at Bankie Park in Anstruther, 130m² with plot holders at an allotment site in Kirkcaldy and 250m² at an allotment site in Glenrothes.

Communities & Neighbourhoods in partnership with Grounds Maintenance:

- Through the legacy of the [Fife's Buzzing](#) project – delivered from 2013-2016 in partnership with Buglife and with grant funding from Heritage Lottery Fund and Fife Environment Trust – management of newly created wildflower meadows takes place annually to maintain their botanical and habitat value. This has included meadow management events with volunteers and community groups. The project created 13 ha of native wildflower-rich grassland at 23 parks and greenspaces across the Kingdom.
- As a land manager, Fife Council joined farmers, estates and golf courses in the RSPB-co-ordinated [Corn Bunting Recovery Project](#) and created three wild bird cover crop areas (4,879m²) with school children from three primary schools in parks in the East Neuk of Fife to provide cover and winter food for this threatened farmland bird. The corn bunting was one of Scotland's fastest declining birds, but in 2016, surveys saw the highest increase in numbers in Fife in any single year since monitoring began, with an 18% increase on participating landholdings. In addition, birds recolonised areas where they hadn't been seen in years; the first local range expansion since monitoring began. The annual establishment of the 'bee and bunting' mixes took place in 2018 and 2019, but could not be undertaken in 2020 due to COVID-19 restrictions. The project was supported by grant funding from North East Fife Local Community Planning and NatureScot.

Grounds Maintenance:

The service has proposed an alternative, sustainable grassland management strategy. It will look to deliver a more integrated approach to management of the local authority's green assets and provide outcomes that meet Fife Council's climate change as well as biodiversity duty obligations. This reflects increasing evidence and desire from communities to manage greenspace differently, including the naturalisation of intensively managed areas.

The service has identified around 10% of council grassland sites which could be managed more sustainably as meadow through an annual management regime. This will increase

the extent, distribution and connectivity of grassland habitat across Fife, increase botanical diversity and provide shelter, food and nesting space for a range of wildlife. The new regime is expected to reduce carbon emissions and use of fossil fuels by 10% in 2020.

Opportunities, supported by grassland and woodland management plans, have been shared with elected members who will in turn consult with communities. A communication strategy was developed and public consultation launched in November 2020, presenting a set of 'rewilding' proposals including supporting documentation and further information on ways to enhance biodiversity.

Advice is regularly given to communities who wish to repurpose land for biodiversity and climate change, for instance the Crail Community Partnership who have since adopted a number of greenspaces in the village.

Assets, Transportation & Environment:

- Financially supporting a project trialing the restoration of coastal saltmarsh habitat for a short section of coast on the Tayport frontage, led by University of St Andrews.
- The Fleet Service continues to expand its electric and hybrid fleet, charging points, and is a member of the Ecostars Fleet Recognition Scheme (see Section 2).
- The Light Fife Green project is continuing to replace all of Fife's street lights with energy efficient bulbs, reducing associated carbon emissions by over 40%.
- Continues to reduce the amount of waste sent to landfill. Fife currently recycles 54.7% of waste.
- Replacing disposable plastics with reusable products in Fife Council buildings. The council's 'Cut it Out' campaign was launched in February 2019. Before the start of the campaign, there were 152,000 plastic cups and 18,000 plastic straws used by the council every year. Fife Council is cutting these further and removing the 1,460,000 items of plastic cutlery used each year, as well as a range of other single-use plastics.
- Facilities Management naturalised a large, prominent water feature at the entrance of the Bankhead Central offices by planting 200 native water lily species, allowing native plants to colonise, cutting off mains water supply to prevent enrichment, and introducing straw bales to address algal blooms. Staff have commented on increased wildlife sightings at the pond.
- Facilities management are developing an initiative to provide a more sustainable food source for the school meals catering service and low-income families. The Plant2Plate proposal will use open spaces for food growing whilst providing learning opportunities for schoolchildren. The initiative will also support and help join up similar community-led initiatives.

Health & Social Care:

- The development of Lindsay House care home in Lumphinnans which opened in 2018 includes a sensory garden for residents and the adjacent tenants of Cedar House extra care housing as well as day service users. The garden has been developed to include plants and shrubs that will encourage insects, birds and small mammals.

- The new care home under construction in Methil will follow a Biodiversity Enhancement Plan which includes:
 - beech hedging to will provide commuting routes for bats, small mammals and birds.
 - Replacement of seven felled trees with 58 extra heavy standards to provide immediate benefit to wildlife.
 - an orchard.
 - a wildflower area at the village green which will provide a rich habitat for insects and encourage birds and small mammals.
 - Shrub planting to include lavender and Hebe to encourage pollinating insects such as bees and butterflies.
 - bird tables and feeders will be provided for the amenity and enjoyment of residents.
- Partnership working with local colleges included pupils helping to create diverse garden spaces that encourage wildlife.
- The care homes replacement programme provides charging points for electric vehicles.

Housing:

- In regular contact with the Biodiversity Team to request advice on or surveys for protected species, most notably bats and birds, as well as habitat management advice. Works to properties in Inverkeithing and Kirkcaldy were programmed to avoid bird nesting times and confirm that no protected species nest on the roofs.
- The department has commissioned and installed external wall insulation and loft and cavity wall insulation to just over 500 (2018/2020) council, Registered Social Landlords and private properties to increase their energy efficiency and reduce their carbon footprint.
- Liaised with Local Office staff and contractors to ensure reinstatement of greenspace and regeneration improvements, most notably in Kirkcaldy after an insulation project involving 200 properties.

Education:

- Primary, secondary and nursery schools in Fife continue to support and improve biodiversity within their outdoor spaces by creating ponds, planting trees and shrubs, composting, erecting bug hotels and creating wildlife gardens. This takes place on a school-by-school basis and is focused around individual school development plans.
- Biodiversity is being introduced at an early age through nursery classes and pupils making the most of their local outdoor space.

Fife Resource Solutions manage a number of sites on behalf of Fife Council and where appropriate work with partners to minimise impact on biodiversity. This includes managing the spread of invasive non-native species at a former landfill site and recycling centre in Pittenweem.

Fife Council has two active land fill sites at Lower Melville Wood, Ladybank, and Lochhead, Dunfermline. These sites contain a range of cells where waste is buried; once a cell is full it is sealed and remediated. When Fife Council closes landfill cells, careful attention is paid to remediating the sites in a way that maximises their biodiversity value. A range of native species have been planted on closed cells and careful monitoring is undertaken to assess any impacts on local water bodies from runoff.

Fife Environmental Partnership secretariat is provided by Fife Council through Fife Resource Solutions, which enables biodiversity to be discussed and promoted with Fife-wide stakeholders from the Partnership.

Roads & Transportation have been working in partnership with Living Streets to deliver the WOW Walk Once a Week project at a number of schools. The year-round walk to school challenge rewards pupils who travel actively to school a set number of days, incentivised by collectable badges designed by pupils across the country. Aside from health and wellbeing benefits, the initiative decrease the number of cars on the roads around the school.

Planning

- The Planning Service Archaeologist worked with Fife Coast & Countryside Trust on the Fife Pilgrim Way, delivering a number of historic graveyard wilding projects. The graveyards were selected by the Archaeologist, and habitat surveys and recommendations made by the Ranger Service and Biodiversity Co-ordinator.
- An audit of existing greenspace provision and an assessment of current and future requirements is being undertaken. This will include analysis of quantity, quality and access. The Fife Greenspace Audit 2009 and its findings were used to develop the Fife Greenspace Strategy, which sets out the vision for increasing access to life enhancing greenspace in Fife, and highlights priorities for settlements. GIS support is being provided for the updated audit, the findings of which will be used to inform the next phase of the Local Development Plan process.
- The intention is to expand on the green network mapping in the next phase of the Local Development Plan, including provision of additional opportunities to further enhance networks. Settlement priorities identified in the revised Greenspace Audit will also be addressed through this process.
- There have been definite benefits to Fife's Greenspace Strategy, including: the creation of a quantity standard that can be used across Fife; providing evidence in decision-making on planning applications; and the ability for it to be used by communities to guide their understanding of the provision of space in the places they live, work and play.

Property and Bereavement Services:

- Embrace intentions that clients wish to progress with regard to biodiversity, and where required consult with landscape architects and in-house specialists.
- Manage quality greenspaces which provide health and wellbeing benefits for the bereaved.

- Biodiversity feasibility works undertaken at old churchyards.
- Investigating the potential to create a biodiversity corridor with churchyards in association with the Fife Pilgrim Way project.

Fife Coast & Countryside Trust:

- The organisation protects and enhances habitats across Fife through the management of designated sites including four Local Nature Reserves, three of Fife Council's Sites of Special Scientific Interest, Lochore Meadows Country Park, the Eden Estuary Special Protection Area/Special Area of Conservation, as well as a number of species-rich grasslands and woodlands and the Fife Coastal path.
- Fife Pilgrim Way: a new long-distance route was created through inland Fife which included habitat enhancement and connectivity including graveyard habitat. Partners included: Fife Council, Fife Cultural Trust, Fife Tourism Partnership, Forth Pilgrim, Historic Environment Scotland, Scottish Natural Heritage, and Scottish Pilgrim Routes Forum. The project was funded by Fife Coast and Countryside Trust, Central Scotland Green Network Trust, Fife Council, Fife Environment Trust, Heritage Lottery Fund, LEADER, Scottish Landfill Communities Fund - Third Sector Hebrides, Scottish Natural Heritage, Suez Community Trust and WREN.
- Recruited two Conservation Project Officers in September 2020, whose roles will be specifically aligned to biodiversity projects across Fife, including Lyne Burn Green Network. This has boosted the Trust's capacity to meet biodiversity objectives.
- Have for the last five years delivered a programme of giant hogweed control along 10km of the upper reaches of the River Eden to remove this invasive non-native species, prevent spread of the plant downstream and help stabilise banks and allow colonisation by native species. Fife Council has secured grant funding to enable the programme to take place each year.
- Manage grassland at West Sands, St Andrews, to improve botanical diversity.
- At the Castle Course in St Andrews, created a 50m x 6m butterfly bank, sown with a wildflower mix including the food plants of Lepidoptera and other insects which have undergone a dramatic decline due to habitat loss and fragmentation. Planted 500m of native mixed hedge to create habitat and improve connectivity.
- Installed an accessible telescope at the Guardbridge hide. This allows a wide range of users to appreciate the wildlife on the Eden Estuary reserve, which has the potential to encourage behavioural change and actions to improve biodiversity.
- In partnership with a dedicated group of volunteers, working to remove marine litter, especially plastics, from the Eden Estuary Reserve. Fifteen clean-up were undertaken and 20% of litter was recycled.
- Undertake management of species-rich grassland at Dalbeath Marsh and Craig Hartle Sites of Special Scientific Interest, at Birnie and Gaddon and Coul Den Local Nature Reserves, and at Lochore Meadows Country Park. Also manage orchards at two of these sites. Planted new hedgerows at the Country Park and Coul Den.
- Programme of *Spartina anglica* control at Shelly Spit and Balgove Bay marshes to prevent this non-native grass from spreading within the Eden Estuary.
- The West Sands Dune Restoration work continues, and since 2010, 1.8km of dune have been restored with biodiversity as well as ecosystem service benefits, most notably protection from coastal flooding and erosion. It is thought to be the largest dune restoration project in Scotland, and is given as a case study within 'Dynamic

Coast: Scotland's Coastal Change Assessment' and SEPA's 'Natural Flood Management Handbook'. Annual events have been held in January with volunteers, where donated Christmas trees are used to fill dune blow-outs and assist with accretion of sand, helping to stabilise the dunes.

Fife Golf Trust manages Fife Council's seven municipal golf courses, amounting to some 300 ha, with a view to enhancing biodiversity including:

- Undertook woodland management throughout the reporting period. Woodland management plans were developed for all seven courses with a view to improving woodland health, biodiversity and amenity. Thinning operations are funded from timber sale.
- Areas of rough on all courses managed annually as meadow with a cut and collect after the flowering period.
- Have increased areas of rough on the course, including creation of new wildflower meadow areas at Dunnikier and Sconie Golf Courses, the former in partnership with Capshard Primary School and Dunnikier Park Development Group.
- Upcycled and repurposed AstroTurf from a council sports pitch to build junior tees.
- Have been taking on board comments from 'GEO Certified' environmental and sustainable accreditation awarded in March 2017, and working towards resubmission.

Fife Sports & Leisure Trust:

- Have banned single use plastics, particularly disposable pool overshoes and cafeteria utensils.
- Converted lighting to LED at Waterstone Crook Sports Centre in Newport-on-Tay and a facility in Levenmouth.

4. Partnership working and communications

4.1 Fife Council's involvement in partnership working on biodiversity.

Fife Council delivers a significant proportion of its biodiversity projects through partnerships, as described in section 3. In addition to the partnerships already mentioned:

Fife Biodiversity Partnership, comprised of representatives from voluntary and statutory organisations, expert groups, community groups, landowners and businesses, meets twice a year to exchange progress updates, best practice and national and regional developments. The group is an important communication and networking platform for nature conservation in Fife.

Representation on the national Local Biodiversity Action Plan Officer Network to exchange best practice, local, national and international developments on nature conservation, and ensure Local Biodiversity Action Planning is in line with national biodiversity priorities.

Fife Environmental Partnership provides the only Fife-wide forum for discussion and sharing of environmental issues available to senior officers and community partners. The Partnership has helped to ensure that projects are progressed in ways that maximise environmental benefits. It provided a forum to support and guide the development of Climate Fife - Sustainable Energy and Climate Action Plan 2020-2030, and will now provide support in its delivery.

Fife Nature Records Centre has been a key partner in the Scottish Biodiversity Information Forum review of biological recording infrastructure in Scotland, as a contributor and also member of the Working Group. The review aims to determine the optimum infrastructure and address issues and gaps, such as in data flows and service provision, which inhibit fulfilment of the recommendations tabled in response to Scottish Parliament Petition PE1229 and the overall Forum vision: 'High quality species and habitat data will be collected and managed through a sustainable, co-ordinated and integrated local and national framework of organisations, partnerships and initiatives. These data will be available to ensure that Scotland's biodiversity, ecosystems and people benefit'.

Fife Nature Records Centre is a member of:

- Biological Recording in Scotland, which promotes the gathering of wildlife data in order to increase public awareness about biological diversity in Scotland and to ensure that effective actions are taken to conserve this resource.
- Association of Local Environmental Records Centres and has made a positive contribution, providing input and perspective on Scottish issues, including use of the

Association's online forum to share knowledge and experience and learn from others.

- National Biodiversity Network, alongside many UK wildlife conservation organisations, government, country agencies, environmental agencies, other Local Environmental Records Centres and several voluntary groups with biodiversity focus.

Fife Nature Records Centre continued to receive input on its activities from a Steering Group, including representation from Planning, NatureScot and expert biological recorders. The Records Centre also coordinated and attended specific meetings for expert recorders of a variety of plant and animal groups in Fife. This helped ensure the Centre was well-informed, that work was targeted appropriately and that crucial relationships were maintained.

The Biodiversity Co-ordinator and more recently the Natural Heritage Planner represented Fife Council on the Forth Estuary Forum and Tay Estuary Forum, stakeholder groups which promote the wise and sustainable use of the estuaries.

On an ad hoc basis, secondary schools work with the John Muir Trust to deliver the John Muir Awards Scheme.

The Leven Programme:

Fife Council is a partner in 'The Leven: Growing with the Flow' Programme. Established in 2018, it aims to undertake landscape-scale environmental improvements within the River Leven catchment whilst maximising social and economic opportunities by working with a wide range of partners and communities.

Partners include Scottish Environment Protection Agency, Scottish Enterprise, NatureScot, Sustrans, Scottish Water, Fife College, Forth Rivers Trust, Green Action Trust, Diageo, Keep Scotland Beautiful, Historic Environment Scotland, Zero Waste Scotland, Fife Coast & Countryside Trust and The Coal Authority.

The River Leven flows approximately 47km from its source at Loch Leven to the Firth of Forth. The catchment area encompasses 422km² of tributaries, burns, lochs and reservoirs, a national nature reserve, a regional park, several communities and the towns of Kinross, Glenrothes and Leven.

The Programme aims to:

- maximise cultural, economic and social opportunities on and around the river by 2030
- better connect local communities along the river
- make environmental improvements, and
- promote biodiversity, tourism, heritage and active travel

It will improve the physical and ecological conditions of the river, unlock opportunities on vacant and derelict land, enhance green networks and habitats including wetland and

woodland, as well as create opportunities to improve people's health, well-being and economic prospects. A key focus is reconnecting people and place.

The Programme aims to be a potentially world-leading example of how organisations can collaborate to develop improvements that take environmental, social and economic factors into consideration at the beginning of any significant community regeneration initiative.

The Programme contributes to the Council's delivery of duties under Climate Change (Scotland) Act 2009, Nature Conservation (Scotland) Act 2004, as well as the Plan for Fife and specifically the Greenspace Strategy, Fife Local Biodiversity Action Plan and Fife's Economic Strategy.

The Programme Board:

- input to development of a Sustainable Growth Agreement, signed in July 2019.
- Shaped development of a Masterplan to ensure focus on delivery of priorities and maximise collaborative advantages, published in June 2019.
- Manage emerging projects, ensuring Programme alignment, securing multi-organisational investment packages and prioritisation of internal and external resources.

Public consultation and collaboration have been central to the work undertaken.

Fife Resource Solutions:

- Contributing to The Leven Programme, including the 'Nature Rich Leven' and 'Net Zero Leven' theme groups.
- Entered into partnership with Greener Kirkcaldy, a community-led charity, and Fife College on the National Lottery funded project 'Climate Action Fife'. The project includes developing a number of local community engagement approaches on climate change. One of these approaches is building capacity for community tree planting.

Fife Golf Trust:

- Fife & Kinross Bat Group volunteers planted a further 256m hedgerow comprised of 620 native trees at Kinghorn Golf Course, bringing the total length of this new wildlife corridor to c. 550m. At Scoonie Golf Course, the group planted 720 mixed native fruiting and flowering hedge trees to enhance 335m fragmented treeline.
- Created a new 6-hole junior course integrating habitat including a small pond, wet meadow, willow copse and tree planting in partnership with Dunnikier Golf Club.
- Working in partnership with Sports Turf Research Institute, who undertake measurements of courses and report independently, highlighting good environmental practice and making recommendations on further improvement including sustainable management of the courses.

Roads & Transportation:

- A partner in The Leven Programme, leading on the Connectivity Project which aims to create an award-winning network of paths and cycle ways from Cameron Bridge to Levenmouth.

Communities & Neighbourhoods:

- Community Manager for Levenmouth leading on public consultation and collaboration of The Leven Programme.
- Representation on both the 'Leven Green Networks' and 'Nature Rich Leven' theme groups of The Leven Programme, looking to connect and enhance habitat including wetland and woodland.
- In partnership with Scottish Environment Protection Agency, commissioned a river restoration feasibility study in 2019 and concept and developed design in 2020, with a focus on the River Leven between Windygyates to Leven. Both phases were awarded grant funding from Water Environment Fund. A proportion of this funding also supported a programme of community engagement activities led by Forth Rivers Trust, focusing on wildlife in the area including otter spotting guided walks and Fish in the Class.
- Inner Forth Futures Wetland Network, a partnership led by RSPB, was awarded £119,415 grant funding from NatureScot Biodiversity Challenge Fund to create and improve wetland habitat at five sites around the Inner Forth. As a partner, Fife Council is enhancing Bluther Wetland near Blairhall through the creation of a new wetland mosaic, hedge planting, control of encroaching willow, and the installation of otter holts and bird and bat boxes. The West Fife Woodlands group and Fife Amphibian & Reptile Group have been invited to take part in the project.
- Fife Council is a partner in the St Andrews Green Corridors project led by St Andrews Botanic Garden with University of St Andrews and Buglife. The project, funded by NatureScot Biodiversity Challenge Fund, will restore habitats and manage invasive non-native species along two habitat corridors within the town along Kinness Burn and North Haugh. This will include extensive tree planting, wildflower meadow creation, and development of a landscape-scale Biosecurity Management Plan for St Andrews. The project is including gardens as well as open spaces. In the first phase of the project, packets of native wildflower seeds were delivered to about 500 houses. In the second phase, 30-50 households within the corridors are being invited to plant a tree sapling in their gardens.
- Fife Council is establishing an agreement with Rural Skills Scotland, a not-for-profit organisation, to undertake management of its woodland landholding whilst offering training and employability opportunities. Woodlands will be brought into management to improve biodiversity as well as amenity value, and have already been ranked through an audit to help Fife Council prioritise sites for the multiple benefits they can provide. Rural Skills Scotland will also take forward woodland creation.
- Supporting Fife & Kinross Bat Group with a novel project to convert a doocot in Letham Glen, Leven, to a 'bat house', offering these threatened animals a safe roosting and hibernation space. A night-scented garden will be planted adjacent to the bat house with the involvement of local schools, communities and volunteers, and two guided bat walks will take place in the glen. The project is funded by Fife Environment Trust.

- Developed a wetland restoration project in partnership with Froglife at Cowdenbeath Wetland and Swans Pond, Lumphinnans. The project aimed to create an extensive wetland mosaic at Cowdenbeath and habitat restoration and interpretation initiatives at Lumphinnans. Two applications for grant funding were unsuccessful and a third is awaiting a decision. In the meantime, Grounds Maintenance have supported the community by restoring a path around the west of Swans Pond, improving access to this locally-valued site.
- Creating woodland at North Field within Dunnikier Park, Kirkcaldy, in partnership with Dunnikier Park Development Group and Kirkcaldy High School. Since 2018, 680 trees have been planted across c. 2000m², and a further 840 trees are due to be planted in November 2020.
- Support Kelty Greening Group on a regular basis through the academic year by running outdoor learning activities at Kelty allotment wildlife garden. This includes habitat creation and enhancement, such as planting an edible hedge, native hedgerow, small orchard, management of a wildflower meadow through hay raking and weeding, installation of bee logs, and management of newly planted trees.
- Supported Hill of Beath Community Group with the development and creation of a biodiversity area at a playing field, including creation of a wet meadow and the planting of 70m of hedgerow with Hill of Beath Primary School. The Employability Team created a boardwalk through the wet meadow area.
- In partnership with Fife & Kinross Bat group, facilitated the planting of a native hedgerow by Kirkton of Largo Primary School pupils on a neighbouring landowner's field boundary to create a wildlife corridor for bats and other animals.

Property and Bereavement Services:

- Consultees on an eco-cemetery proposal led by Kinghorn Community Land Association.
- Supported the Old Kirkton Church and Historic Graveyard Community Conservation and Heritage Promotion Project, led by Burntisland Heritage Trust. The site was made safe and consequently re-opened to the public. 'Green graveyard' initiatives were undertaken with participation from volunteers and primary schools, including planting a wildflower fringe round the periphery. An education pack was produced for schools, including information on the natural heritage of site.

Planning

- Supporting The Leven Programme through land use and development projects, including the Levenmouth rail link proposal.
- Representation on the steering groups for Fife Nature Records Centre and the Wildlife Sites Review project.

Fleet

- Fife Council's independent fuel saving trial on two Mercedes-Benz Econic Refuse Collection Vehicles demonstrates the successful partnership working with Mercedes, Allison Transmissions and Fleet Operations.
- The combined average fuel consumption improvement over the six month period was 8.85%.

- As a result of fuel economy improvements, Fife Council decided to retrofit another 11 Refuse Collection Vehicles with FuelSense 2.0 software, in addition to ordering a further 11 vehicles. These 24 vehicles are expected to cut the council's expenditure on diesel by about £42,000 per year, and its CO₂ emissions by almost 124 tonnes.

Fife Coast & Countryside Trust:

- The Trust is a firm proponent of partnership working and collaborates with local communities, community groups, and various organisations to deliver work on the ground.
- In the reporting period, the Fife Coast & Countryside Trust Board included representatives from Keep Scotland Beautiful, Scottish Natural Heritage, Visit Scotland, and Forestry and Land Scotland.
- Relationships are actively maintained with other organisations including but not limited to Greener Kirkcaldy, Royal Society for the Protection of Birds, Friends of the Earth, International Union for the Conservation of Nature, A Rocha and others.
- Represent biodiversity issues on a number of groups across Fife including Fife Environmental Partnership, Fife Biodiversity Partnership, Take a Pride in Levenmouth and the Dumbarrie Wildlife Reserve Management Group.
- Committing a member of staff to support community engagement activities under the Lyne Burn Green Network project in Dunfermline, working closely with Fife Council, NatureScot and Scottish Environment Protection Agency to deliver objectives.
- Membership of the St Andrews Sands Partnership to discuss issues affecting the reserve, beaches and coastline of St Andrews. This group has been instrumental in supporting objectives within the Eden Estuary Local Nature Reserve and Site of Special Scientific Interest.
- Supporting saltmarsh regeneration at the Eden Estuary Site of Special Scientific Interest and Local Nature Reserve in partnership with the University of St Andrews and St Andrews Links Trust. The 'Saltmarshes on the Fringe' and the 'Green Shores' project - a collaboration between coastal landowners and community organisations – create new habitat for wildlife whilst protecting the shoreline from coastal flooding and erosion. This long-standing stakeholder partnership is addressing habitat loss whilst strengthening the Eden Estuary's shoreline against rising sea-levels.
- Working with staff and management from the new Dumbarrie Links golf course development. With volunteers, removed invasive *Rosa rugosa* from adjacent sand dunes.
- Organising and leading regular sessions with pupils from Levenmouth Academy to remove invasive *Rosa Rugosa* from coastal grassland between East and West Wemyss.
- Assisting with the RSPB-led corn bunting project in the East Neuk, delivering talks to schools and supporting Fife Council with 'bee and bunting' sowing events.
- Working with members of Markinch Heritage Group and Fife Council, with support from volunteers and maintenance staff, to remove invasive non-native Himalayan balsam from habitat along the Fife Pilgrim Way between Markinch and Kennoway.

- Assisting Butterfly Conservation Scotland and NatureScot to plant wildflower plugs along the Fife Coastal Path between Elie and Ardrross. This project was primarily aimed at increasing the local population of Common Blue butterflies by planting bird's-foot trefoil, its larval food plant.
- Undertook a programme of giant hogweed control to support Fife Resource Solutions with eradication at a former landfill site at Pittenweem.
- Working in partnership with Fidra, an environmental charity focusing on plastic pollution, to highlight the problem, involving local schools in activities such as nurdle hunts.
- Worked in partnership with Fife Cultural Trust to install new steps and an interpretation plinth including information on biodiversity at St Monans Windmill. Feedback will be obtained on the panel to determine future work along the coast.
- Supported Scottish Rural College by helping to deliver modules in Wildlife and Conservation Management at Elmwood campus in the 2019/2020 academic year. Intend to support the coming academic year.
- Worked with community groups around Fife to tackle plastic pollution on the Fife coast, providing communities with Litter Pick Tool Kits to enable them to take action in their local area.
- Under a new partnership agreement with St Andrews Links Trust, Countryside Rangers at West Sands and the Eden Estuary aim to: manage and improve the visitor experience; protect and maintain the natural environment; provide an educational and volunteer programme; manage and maintain the West Sands Dune Restoration project; and support the Links Trust with their environmental objectives. The agreement has considerable benefits for the Eden Estuary Local Nature Reserve, providing concerted management and helping to implement local and national biodiversity objectives.
- In partnership with Fife amphibian and Reptile Group, enhanced habitat and created refugia for reptiles and amphibians and monitored populations at key sites.

4.2 Communication and awareness raising activities about biodiversity conservation

- Regular communications about biodiversity and the Fife Local Biodiversity Action Plan are made externally through events, illustrated talks, a web presence and media releases. Internally, biodiversity communications are facilitated through cross-service meetings, presentations, workshops and briefing notes.
- Regular Fife Environmental Partnership meetings throughout the year facilitate presentations and workshops that highlight local biodiversity opportunities and action.
- Biannual Fife Biodiversity Partnership meetings are hosted by a different partner each time, with an opportunity for them to raise awareness about their biodiversity work through a presentation and site visit. This encourages communication and can facilitate partnership working.

- Fife Nature Records Centre held a range of public workshops in partnership with groups and organisations including British Arachnological Society and British Bryological Society, to raise awareness about species groups, including training in identification and recording as well as developing appreciation for conservation issues.
- With the support of local expert biological recorders and schemes and societies, the Biodiversity Team organised a number of public biological recording activities including bioblitzes. The team worked in partnership with and supported others in delivery of a number of events to raise awareness about biodiversity.
- The Fife Golf Trust Courses Manager and the Biodiversity Co-ordinator were invited to sit on a sustainability panel at the British and International Golf Greenkeepers' Association conference in February 2018 to discuss partnership working and delivery of mutual objectives for 'GEO Certified' accreditation and the Fife Local Biodiversity Action Plan.
- Fife Golf Trust set up a social media group to encourage greenkeepers from all seven courses to share environmental projects and wildlife sightings. The Trust also set up sub-groups within Golf Clubs to better communicate environmental and greenkeeping initiatives, such as recent woodland management, and encourage discussion.
- Park and greenspace managers regularly erect signage at biodiversity sites to inform the public that areas are being managed to encourage wildlife, for instance at new wildflower meadows.
- Procurement Service through the Sustainable Procurement Working Group are promoting use of the new online Sustainable Procurement Tools.

Fife Coast & Countryside Trust undertakes a suite of awareness raising and educational activities including practical conservation events, guided walks, school sessions, volunteer groups, and production of interpretation and media. The ranger service plays a key role in Fife in engaging the public with nature conservation initiatives.

- The Trust maintains a website with information about the countryside and coastal sites the organisation manages, produces a quarterly newsletter, and has an active social media presence. This includes Facebook posts with accompanying photographs covering a range of projects, wildlife subjects and issues, enabling the Trust to engage with and inform a wide audience.
- Production of newsletters for Eden Estuary and Birnie & Gaddon Local Nature Reserves and Lochore Meadows Country Park. These provide information about wildlife, developments and points of interest at the sites. They also encourage people to learn more about biodiversity whilst communicating ways to act responsibly.
- Working with Fife Seal Group, Police Scotland and Pittenweem West Braes Project to address the increasing problem of disturbance to both Harbour and Grey seals. Information signs were installed at sites along the Fife Coastal Path.
- Leading tide and rockpool sessions at twice yearly Fife Council Early Years Nursery Teacher Foreshore Training days. These are held at Lower Largo and focus on educational visits to the seashore for younger children. Leading rockpool events at Pittenweem in partnership with Pittenweem West Braes Project.

- Delivered a series of wildlife events at Elie Holiday Park, in partnership with staff and management from the site and input from Butterfly Conservation Scotland.
- Leading moth and invertebrate events at various sites in partnership with a range of organisations including Fife Employment Access Trust at Silverburn Park in Leven, and CLEAR Buckhaven & Methil at Buckhaven Community Garden. Additional events were held as part of Fife Council's Community Education family activities in Methil, Kennoway, Anstruther and St Andrews.
- Helping to deliver a series of activities for pupils from Parkhill Primary School as part of their John Muir Trust Award. Part of a team which also included Fife Employment Access Trust, Fife Council Community Education and Butterfly Conservation Scotland.
- Monthly sessions with staff and service users from the Robert Gough Adult Day Care Centre. These include a range of conservation tasks including coastal litter picks and invasive plant removal for adults with learning difficulties.
- Offering advice and information about careers in conservation at school careers days.
- Liaison with landowners in the Lomond Hills Regional Park to encourage enhancement of biodiversity in land management.
- The Coastal Volunteer Group run in partnership with St Andrews Links Trust at West Sands meets monthly to carry out tasks and projects including beach clean-ups to engage the public.
- Hosting educational visits at Eden Estuary Local Nature Reserve, such as Abertay Environmental Science and Civil Engineering to learn about reserve management and coastal process, and Elmwood College Countryside Management to learn about bird identification and survey techniques.
- The West Sands Events Programme was initiated to promote objectives for the site. An Education and Outdoor Learning Programme was also instigated to engage young people through a curriculum-guided programme. Local schools, colleges, universities and community groups have all been engaged.
- In the reporting period, 2,101 volunteer days were contributed towards a range of projects, from removal of invasive plant species and tree planting, to dune restoration and beach cleaning. This included regular Fife Coast & Countryside Trust volunteers, community and corporate groups, and members of the public giving of their time and enthusiasm to create positive working partnerships.

4.3 Training and learning activities that were carried out internally or externally relating to biodiversity

- Attendance by Fife Nature Records Centre at annual conferences for Biological Recording in Scotland, Association of Local Environmental Records Centres, and the National Biodiversity Network, learning from peers and contributing to discussion workshops on key issues.

- Knowledge of specific plant and animal groups has been furthered within Fife Nature Records Centre and a dedicated Business Support role through attendance at workshops arranged in partnership with experts, and training presented externally.
- As a legacy of the Fife's Buzzing project, the Biodiversity Team continues to offer meadow creation and management advice and support internally and externally to encourage adoption of more biodiverse, less intensively-managed grassland. Fife Coast & Countryside Trust held annual grassland identification and management workshops as well as training days at Scotia Seeds.
- The Biodiversity Team regularly attends events to raise awareness about and engage people in biological recording and local nature conservation initiatives. Such events include agricultural shows, open days, partner organisation events, conferences and bioblitzes.
- The Biodiversity Team offered freshwater quality monitoring training to greenkeepers of Fife Golf Trust and members of the public in September 2019, with a view to raising awareness about biotic indices and making monitoring on the seven municipal courses more sustainable in the long run. Attendance included the Golf Course Manager of Elmwood Golf Course and a representative from Perth & Kinross Council.
- All Property Services staff have engaged with ecology training with a focus on bat legislation.
- Delivery of Sustainable Procurement Workshops to Procurement staff in various services. The Sustainable Procurement Working Group is reviewing Sustainable Procurement Training opportunities and delivery to date.
- Fife Coast & Countryside Trust Head of Operations attended the UK Bathing Waters Conference in Belfast. This three-day event covered industry best practice, coastal recreation and water quality. Knowledge gained enabled delivery of a presentation on the practical challenges of dealing with an oil spill which occurred within the Forth Estuary.
- Fife Coast & Countryside Trust Rangers delivered: a butterfly identification workshop for St Andrews Links Trust greenkeeping staff; five hedgelaying courses; and scything training for Tomintoul and Glenlivet Landscape Partnership.

4.4 Opportunities for staff to take part in practical action such as volunteering

Fife Council recognises that it may be in the public interest, and hence aligned with the local authority's aims, to allow staff to take time off for public duties and voluntary activities.

The local authority's Discretionary Leave Guidelines makes reference to time off for volunteering. Time off for public duties is with pay however time off for voluntary activities is not remunerated unless it is considered by the manager that the activity is of direct benefit to the Council.

5. Biodiversity highlights and challenges

5.1 Fife Council's main achievements for biodiversity and what the organisation is most proud of

Fife Council is pleased to be working on an extensive range of projects and initiatives in partnership with many organisations and communities to improve Fife's environment for biodiversity. Wherever possible, the council seeks to achieve multiple benefits through these initiatives to maximise opportunities for people as well as wildlife. Engagement of local people is key in order to encourage understanding and enjoyment of biodiversity.

- The Leven Programme: cross-service involvement in this ambitious, catchment-scale environmental and socio-economic regeneration project.
- The Lyne Burn Green Network project with Scottish Environment Protection Agency and NatureScot to restore a section of river and create a high quality 'riverside park' in central Dunfermline.
- A 30ha woodland creation scheme at former Minto colliery, and embarking on a partnership with Rural Skills Scotland to undertake woodland management of key sites with training and employability outcomes.
- Taking forward river restoration projects in partnership with Scottish Environment Protection Agency for Back Burn and River Leven, both at concept and developed design phase.
- Publication of Climate Fife - Sustainable Energy and Climate Action Plan 2020-2030.
- The Wildlife Sites re-survey and reassessment project which will ensure up-to-date information is available on Fife's 83 designations.
- The project development which committed and proactive staff are taking forward at a time when capacity and resources are increasingly challenging.
- Shortlisted for the Most Innovative Fleet Management Strategy Award and the Annual Future Fleet Awards in January 2020.

5.2 What will the main challenges be over the coming three years?

Fife Council has put in place strategies, policies and plans for the coming years to protect and enhance greenspace, improve sustainability, increase the environment's resilience to climate change, and enhance biodiversity, with an understanding of the multiple benefits that a healthy, high quality environment brings. The local authority will continue to work with partners to implement these objectives in an increasingly challenging time, and will strive to:

- Consider different ways of protecting and enhancing habitat, instigating and delivering projects and retaining and passing on knowledge in light of fewer resources and staff capacity.
- Commit where possible to maintaining biodiversity projects and initiatives and also re-evaluating management of greenspace to ensure the best outcome for biodiversity and people.
- Commit to maintaining the quality of existing greenspaces and provision of quality, accessible greenspace within new development. Improving access to quality greenspace is widely recognised as providing socio-economic and environmental benefits for the areas around them.
- Continue to raise awareness and understanding – particularly at a decision-making level - about the importance of protecting and enhancing the environment for the multiple benefits it provides, including ecosystem services. This will help to ensure that climate, environmental and greenspace enhancement projects continue to be supported.
- Continue to raise awareness and understanding amongst the public to further responsible use of the countryside
- Ensure that skills and knowledge are shared to minimise the impact of changes in and loss of staff. Encourage staff to be pro-active and develop biodiversity projects where possible in spite of reduced capacity.
- Continue to make the most of accessible grant funding, specifically to deliver landscape-scale conservation
- Protect capital and revenue budget associated with non-operational works to properties to ensure biodiversity benefits can be implemented within contracts
- Engage staff more widely and continue to mainstream across the council
- Keep abreast of potential changes in nature conservation, environmental and agricultural legislation when Britain leaves the European Union, in the hope that new legislation adequately protects Fife's natural heritage and special places



6. Monitoring

6.1 Follow-up actions or monitoring undertaken by Fife Council to assess impacts of work

Communities & Neighbourhood Biodiversity Team:

- have for the past three years undertaken annual water quality monitoring on Fife Golf Trust's seven municipal golf courses. The methodology uses biotic indices to monitor the impact of changes in land management on watercourses and ponds, including significant decreases in fungicide and fertilizer application.
- Began an annual grassland monitoring programme at St Andrews – Craig Hartle Site of Special Scientific Interest using Site Condition Monitoring methodology to assess the impact of grassland management which commenced in 2018 further to successful bracken control work

Fife Coast & Countryside Trust:

- Fife Coast & Countryside Trust undertakes monitoring of a selection of sites in order to inform management. This includes the Eden Estuary Special Protection Area, Special Area of Conservation and Site of Special Scientific Interest, where monitoring of waders, wildfowl, seals, saltmarsh, coastal erosion, invasive non-native species, and human impact feed directly into management objectives for the site. Information is compiled and made available through an annual report. Volunteers make a significant contribution to monitoring initiatives, including birds, invertebrates and invasive non-native species.
- Undertake bird surveys at Eden Estuary Local Nature Reserve as part of wider ecological monitoring facilitated by other organisations e.g. Wetland Bird Surveys (British Trust for Ornithology), Icelandic Goose Counts (Wildfowl and Wetland Trust), Beached Bird Survey (Royal Society for the Protection of Birds). All records captured and forwarded to Fife Nature Records Centre and British Trust for Ornithology.
- A Lochore Meadows Country Park, monitoring includes butterfly, bumblebee and dragonfly transects, Common Bird Census and grassland. Grassland monitoring demonstrated that meadow management has had a positive impact on botanical diversity, with particularly dramatic increases in Greater Butterfly Orchid. At Local Nature Reserves including Coul Den and Birnie & Gaddon, monitoring includes National Vegetation Classification of grassland and Breeding Bird Surveys.
- Contribute to monthly Wetland Bird Survey (British Trust for Ornithology) and seal counts along Fife's coastline, the latter shared with Fife Seal Group.

Fife Golf Trust:

- A volunteer has undertaken monthly moth monitoring (excluding winter) at Lochore and Auchterderran Golf Courses as indicators of ecosystem health.

Roads & Transportation:

Undertake a suit of monitoring around active travel, street lighting and electric vehicle charging point usage. These initiatives will help reduce pollution and improve the quality of Fife's environment:

- Use the Hands Up Scotland Survey to monitor impact of School Travel Plans on pupil travel to school; undertaken annually by every school in Fife.
- Walk Once a Week is delivered using an online Travel Tracker which allows analysis of user trends on a monthly, yearly and project basis.
- Monthly monitoring of street lighting energy consumption has shown a year on year drop in energy usage and corresponding carbon emissions. Since 2015 there has been a greater than 50% reduction in electricity consumption.
- Monitoring of electric vehicle charging network has shown an increase in usage year on year.
- Employee Travel Survey undertaken every two years to monitor Fife Council Travel Plan.
- Fife Wide Bicycle Counts Comparison at Permanent Sites continues. There was a -11.94% change in the total number of bicycles counted Fife-wide in 2018, when compared with the total for 2017. The loss of two major monitoring sites and issues with equipment at a further two sites are the main reasons for the reduction.
- Monitoring has shown that staff play a crucial role in the delivery and success of projects such as Walk Once a Week. Where staff aren't available to keep the momentum going, a downturn in the success of the project has been observed.

6.2 Submission of data to the National Biodiversity Network

Fife Nature Records Centre, the local biological records centre run by Fife Council with grant funding support from NatureScot, submits data to the National Biodiversity Network Atlas on an annual basis.

7. Contribution to targets

Use the following table to indicate the biodiversity targets to which your organisation has contributed.

Targets/key steps from Chapter 1 (Healthy ecosystems) of the "2020 Challenge for Scotland's Biodiversity"	Contribution to key step [Yes/No]	Justification [Include project title or reference for relevant activity]
(1.1) Encourage and support ecosystem restoration and management, especially in catchments that have experienced the greatest degradation	Yes	<p>Fife Local Biodiversity Action Plan 2013-2018 and the work of the Fife Biodiversity Partnership</p> <p>The Leven Programme: catchment-wide, multi-agency environmental regeneration</p> <p>Lyne Burn, Back Burn and River Leven restoration projects through SEPA Water Environment Fund grant funding</p> <p>Woodland management at four key sites through Woodland in and Around Town funding</p> <p>Woodland expansion targets on local authority land - 100ha by 2028</p> <p>Woodland creation: 30 ha planting scheme at Minto, Cardenden</p> <p>Fife-wide sustainable grassland management strategy</p> <p>West Sands Dune Restoration Project</p> <p>Saltmarsh restoration at Tayport</p> <p>Wetland and pond creation and restoration projects, including Cowdenbeath and Bluther wetlands</p> <p>Enhancement of greenspace e.g. Lyne Burn Green Network, St Andrews Green Corridors, Kelty and Hill of Beath community wildlife gardens, pollinator-friendly planting</p>
(1.2) Use assessments of ecosystem health at a catchment level to determine what needs to be done	Yes	<p>The Leven Programme: catchment-wide, multi-agency environmental regeneration</p> <p>River Eden giant hogweed control programme</p> <p>Back Burn, Lyne Burn and River Leven Restoration Projects</p> <p>West Sands Dune Restoration – based on landscape-scale surveys and management plan</p> <p>Woodland audit: ranked 88 council woodlands in order of priority for people and wildlife to help target management</p>

<p>(1.3) Government and public bodies, including NatureScot, Scottish Environment Protection Agency and Forestry and Land Scotland, will work together towards a shared agenda for action to restore ecosystem health at a catchment-scale across Scotland</p>	<p>Yes</p>	<p>Fife Environmental Partnership – leads on environmental aspects of community plan (public bodies include National Health Service, NatureScot, Forestry and Land Scotland, Scottish Environment Protection Agency, Fife College, University of St Andrews, Fife Coast & Countryside Trust)</p> <p>Fife Biodiversity Partnership – leads on delivery of Fife Local Biodiversity Action Plan (public bodies include NatureScot, Forestry and Land Scotland, Police Scotland, Fife Coast & Countryside Trust, Fife College, University of St Andrews, Elmwood College, Fife Golf Trust)</p> <p>The Leven Programme: catchment-wide, multi-agency environmental regeneration</p> <p>Lyne Burn, Back Burn and Leven river restoration projects in partnership with Scottish Environment Protection Agency</p> <p>Minto woodland creation scheme funded by Forestry & Land Scotland</p> <p>Management of Sites of Special Scientific Interest – with NatureScot and Fife Coast & Countryside Trust support</p> <p>West Sands Dune Restoration – through partnership including NatureScot and the Army</p> <p>Fife Nature Records Centre is run with financial and steering group support from NatureScot</p> <p>Education Service has links with Scottish Rural College, Fife College and universities</p>
<p>(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</p>	<p>Yes</p>	<p>Fife Local Biodiversity Action Plan 2013–2018 – ecosystem approach Climate Fife - Sustainable Energy and Climate Action Plan 2020-2030</p> <p>The Leven Programme: catchment-wide environmental regeneration</p> <p>Back Burn, Lyne Burn and River Leven restoration projects meet requirements under Water Framework Directive</p> <p>Fife Forestry & Woodland Strategy 2013–2018</p> <p>Fife Shoreline Management Plan</p> <p>Fife Greenspace Strategy 2011-2016</p> <p>Fife Council Allotments Strategy 2018-2023</p> <p>West Sands Management Plan</p> <p>Making Fife’s Places supplementary planning guidance – importance and value of green networks integral</p>
<p>Targets/key steps from Chapter 3 (Biodiversity, health and quality of life) of the "2020 Challenge</p>	<p>Contribution to key step [Yes/No]</p>	<p>Justification [Include project title or reference for relevant activity]</p>

for Scotland's Biodiversity"		
(3.1) Provide opportunities for everyone to experience and enjoy nature regularly, with a particular focus on disadvantaged groups	Yes	<p>Fife Coast & Countryside Trust Ranger Service activities, events and volunteering opportunities</p> <p>Fife Nature Records Centre workshops, bioblitzes and identification training</p> <p>Biodiversity Team practical conservation events, guided walks, events and volunteering opportunities</p> <p>Outdoor Education Team based at Lochore Meadows Country Park, including Natural Connections outdoor learning programme</p> <p>Early Years outdoor nursery trial and programme development</p> <p>Bums Off Seats free guided walking initiative</p> <p>EcoSchools and John Muir Award initiatives through schools</p>
(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	Yes	<p>Climate Fife - Sustainable Energy Climate Action Plan 2020-2030</p> <p>Partner in Climate Action Fife project led by Greener Kirkcaldy, including support of community-led woodland creation</p> <p>Fife Greenspace Strategy 2011-2016</p> <p>Fife Local Biodiversity Action Plan 2013-2018</p> <p>Making Fife's Places Supplementary Planning Guidance and green network webpages</p> <p>Keep Scotland Beautiful, Beautiful Fife, Britain in Bloom initiatives</p> <p>Above strategies and communities supported by staff including Greenspace Officer, Biodiversity Co-ordinator, Park Development Officers, Urban Park Ranger (until 2019), Community Events Officer (until 2019), Park Operations teams, Planning Officers – work in partnership with communities to enhance greenspaces for people and biodiversity</p> <p>Fife Coast & Countryside Trust through Countryside Ranger Service and Conservation Project Officers</p> <p>Fife Golf Trust / Biodiversity team partnership work to enhance Fife Council's seven municipal golf courses</p>
(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	Yes	<p>Bums Off Seats free guided walking initiative</p> <p>Installation of Green Gyms in parks</p> <p>Fife Greenspace Strategy / work of Greenspace Officer</p> <p>Roads & Transportation - development of cycle networks in Dunfermline, Glenrothes and Kirkcaldy. Fife has one of most comprehensive cycling networks in Scotland</p>

<p>(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</p>	<p>Yes</p>	<p>Early Years team developing outdoor nursery provision with trial project underway</p> <p>Primary, secondary and nursery schools continue to improve biodiversity within their outdoor spaces by creating ponds, wildlife gardens, planting trees, composting, etc. enhance biodiversity on school grounds</p> <p>Outdoor Education Team based at Lochore Meadows Country Park, including, Natural Connections outdoor learning programme</p> <p>Education service makes use of EcoSchools and John Muir Award initiatives</p> <p>Hedge planting with Kirkton of Largo Primary School in partnership with neighbouring landowner</p> <p>Community wildlife garden/outdoor classroom at Kelty – regularly support two primary schools with outdoor learning on site</p> <p>Biodiversity Team offers advice to schools on improving grounds for biodiversity</p> <p>Plant2Plate initiative being developed to encourage food growing on public space near schools</p>
<p>(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</p>	<p>Yes</p>	<p>Plan for Fife Local Outcome Improvement Plan 2017-2027 'Thriving Places' (community plan led by Fife Partnership Board)</p> <p>Fife Environmental Partnership</p> <p>Fife Local Biodiversity Action Plan 2013-2018 along with Fife Biodiversity Partnership and Biodiversity Team – private landowners and businesses engaged and supported</p>
<p>Targets/key steps from Chapter 4 (Wildlife, habitats and protected places) of the "2020 Challenge for Scotland's Biodiversity"</p>	<p>Contribution to key step [Yes/No]</p>	<p>Justification [Include project title or reference for relevant activity]</p>
<p>(4.1) Ensure that the management of protected places for nature also provides wider public benefits</p>	<p>Yes</p>	<p>Fife Coast & Countryside Trust through their site management also provide access, recreation, interpretation, community engagement and education. Countryside Ranger Service important in providing wider public benefits.</p> <p>Fife Council engage the public in designated site management through practical conservation events and also maintain access for public use</p>
<p>(4.3) Integrate protected areas policy with action for wider habitats to combat fragmentation and restore key habitats</p>	<p>Yes</p>	<p>The Fife Integrated Habitat Network model is available to all staff on the internal mapping system as well as to the public on Fife Direct. It is used to inform project development and also in planning recommendations and mitigation</p>

		<p>Green networks are included as an important consideration for all new developments in the FIFEplan Local Development Plan adopted September 2017</p> <p>The Making Fife's Places Supplementary Planning Guidance sets out that biodiversity is a key consideration and integral part of the design process for a new development.</p>
(4.5) Involve many more people than at present in this work and improve understanding of the poorly known elements of nature	Yes	<p>Fife Coast & Countryside Trust, particularly Countryside Ranger Service</p> <p>Fife Council Biodiversity Team through Fife Local Biodiversity Action Plan and Fife Nature Records Centre via internal and external initiatives</p> <p>Fife Environmental Partnership</p> <p>The Leven Programme</p> <p>Lyne Burn Green Network community engagement programme</p>
Targets/key steps from Chapter 5 (Land and freshwater management) of the "2020 Challenge for Scotland's Biodiversity"	Contribution to key step [Yes/No]	Justification [Include project title or reference for relevant activity]
(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	Yes	<p>Fife Local Biodiversity Action Plan 2013-2018 and the work of the Fife Biodiversity Partnership</p> <p>Fife Environmental Partnership</p> <p>Green networks included as an important consideration for all new developments in the FIFEplan Local Development Plan</p> <p>The Making Fife's Places Supplementary Planning Guidance - biodiversity is a key consideration and integral part of the design process for a new development.</p> <p>The Leven Programme: catchment-wide environmental regeneration</p> <p>Back Burn, Lyne Burn and River Leven restoration projects</p> <p>Sustainable grassland management strategy</p> <p>Fife Forestry & Woodland Strategy 2013-2018</p> <p>West Sands Dune Restoration</p> <p>Saltmarsh restoration at Tayport through flood/coastal erosion work</p>
(5.2) Ensure that measures taken forward under the Common Agricultural Policy encourage land managers to develop and retain the	No	n/a

diversity of wildlife habitats and landscape features		
(5.3) Support 'High Nature Value' farming and forestry	No	n/a
(5.4) Put in place the management necessary to bring Scotland's protected areas into favourable condition and improve the ecological status of water bodies	Yes	<p>Service Level Agreement with Fife Coast & Countryside Trust to manage suite of protected areas on behalf of Fife Council</p> <p>Fife Council working to bring its Sites of Special Scientific Interest into favourable condition – target in service performance plan</p> <p>Three projects underway to improve ecological status of water bodies:</p> <ul style="list-style-type: none"> • Lyne Burn restoration through Rex Park • Back Burn feasibility study completed; concept & developed design underway • River Leven feasibility study completed; concept & developed design underway
(5.5) Ensure that biodiversity and ecosystem objectives are fully integrated into flood risk management plans, and restore wetland habitats and woodlands to provide sustainable flood management	Yes	<p>The Leven Programme: flood risk being undertaken through Network Rail rail link commission, including partnership working through Sustainability Agreement</p> <p>Shoreline Management Plan</p> <p>Commissioned flood risk/erosion studies request that Natural Flood Management be taken into consideration</p> <p>Saltmarsh planting at Tayport as a result of flood/erosion study</p> <p>Back Burn feasibility and scoping study to include riparian planting</p> <p>Bluther Wetland restoration project</p> <p>Minto woodland creation scheme (30ha)</p> <p>Fife Forestry & Woodland Strategy 2013-2018 and woodland expansion targets</p> <p>Climate Fife - Sustainable Energy and Climate Action Plan 2020-2030</p> <p>Fife Environmental Partnership</p>
(5.6) Restore and extend natural habitats as a means of building reserves of carbon and to help mitigate climate change	Yes	<p><u>Natural habitats are created and connected with multiple objectives one of which is climate adaptation and mitigation:</u></p> <p>Woodland expansion targets on local authority land – 100ha by 2028</p> <p>Minto woodland creation scheme (30ha)</p> <p>Sustainable grassland management strategy, looking to manage 10% of amenity grass as meadow starting in 2020</p>

		<p>Ecological and morphological restoration of rivers at Back Burn, Lyne Burn and River Leven</p> <p>Pond and wetland creation and restoration with partner organisations and communities, such as Bluther Wetland</p> <p>Hedgerow creation with partner organisations</p>
(5.7) Provide clear advice to land and water managers on best practice	Yes	The Biodiversity Team provides advice on invasive non-native species issues and treatment to landowners when requested
Targets/key steps from Chapter 6 (Marine and coastal) of the "2020 Challenge for Scotland's Biodiversity"	Contribution to key step [Yes/No]	Justification [Include project title or reference for relevant activity]
(6.4) Achieve good environmental status for Scottish seas	Yes	<p><u>Limited potential to influence, but initiatives include:</u></p> <p>Member of Forth Estuary Forum and Tay Estuary Forum</p> <p>Taking part in Blue Flag Award</p> <p>Fife Coast & Countryside Trust supporting and organising extensive beach clean-up events including participation in annual Great British Beach Clean</p> <p>Fife Coast & Countryside Trust working with Fidra to raise awareness and engage children in plastics pollution issue</p>