

THE BIODIVERSITY DUTY REPORTING TEMPLATE: LEVEL ONE ORGANISATIONS

<https://www.nature.scot/doc/guidance-note-biodiversity-duty-explained>

Reporting period: 1 January 2021 - 31 December 2023

Public bodies that own or manage land, regulate land use, or have responsibilities linked to biodiversity

Report Outline

Bodies are encouraged to use the following structure for their report. This is set out in the template below, which you can either type directly into, or copy into a separate document.

- Section 1: Introductory information about your public body
- Section 2: Actions to protect and enhance biodiversity
- Section 3: Mainstreaming biodiversity
- Section 4: Nature-based solutions, climate change and biodiversity
- Section 5: Public engagement and workforce development
- Section 6: Research and monitoring
- Section 7: Biodiversity highlights and challenges

Completion Notes

These completion notes offer guidance to support your public body to complete your Biodiversity Duty Report. Taken together with the associated hyperlinks, they provide suggestions on the breadth of actions that could be included in your report. They may also assist with forward planning on how biodiversity can be taken into account in future.

While they incorporate the key elements on which you may wish to report, they are not an exhaustive list and it is likely that there will be a range of additional work that your organisation carried out in support of biodiversity on which you may also wish to report. To find out more on the Biodiversity Duty see the [NatureScot website](#).



SECTION 1: INTRODUCTORY INFORMATION ABOUT YOUR PUBLIC BODY

Please describe your organisation’s role and purpose, including any particular environmental responsibilities

<p>Guidance on completing this section</p>	<p>Summarise your organisation’s role and purpose, including if own or manage land, regulate land use, and any particular responsibilities linked to biodiversity.</p> <p>Summarise any relevance and impacts of biodiversity to your organisation, including your role in:</p> <ul style="list-style-type: none"> • Land and estate management; • Regulation of land use and development; • Providing public information, supporting community learning and education around nature and the environment; • Any significant environmental impacts from your operations.
<p>Text Field</p>	<p>West Lothian Council's mission statement is - "striving for excellence... working with and for our communities"</p> <p>Values - Caring and compassionate; open, honest and accountable; collaborate, inclusive and adaptive</p> <p>The council's five corporate priorities for the period 2023/24 to 2027/28 are:</p> <ul style="list-style-type: none"> • Raising educational attainment • Strengthening care and support for children, adults and older people • Investing in skills and jobs • Helping to create strong and sustainable communities • Tackling homelessness, poverty and inequality <p>West Lothian Council (WLC) is responsible for providing a range of public services including Education, Planning, Operational Services, Housing, Health and Social Care.</p> <p>Land and estate management</p> <p>WLC owns and manages 4,125ha of land in West Lothian. Of WLCs land holdings, Broadleaved woodland comprises 16%, with woodland, scrub and tree habitats as a whole accounting for 33.9% of the landholdings. Semi-natural grassland occupies 6.3% of the areas, Improved grassland comprises 8% and amenity grassland accounts for 21%. Built areas and infrastructure together make up 19.4%, with private gardens comprising 5.4%.</p> <p>Management of the Councils land holdings and assets is overseen by Operational Services which includes NETs, Land and Countryside teams who directly manage the Councils parks, open spaces and tree assets.</p>



Responsibilities for managing WLC land holdings and assets are laid out in a number of Council documents, including the Corporate Asset Management Strategy, LBAP, Climate Change Strategy and Adaptation Action Plan, Forest and Woodland Strategy, Open Space Strategy, individual site management plans and various other local level plans and strategies (e.g. Grassland Strategy).

Sitting within Parks and Woodland department under the wider NETS, Land and Countryside services, a newly formed Ecology & Biodiversity (E&BD) team has been employed since October 2021. This is to ensure the council is fulfilling its commitments to national policies and agreements, as well as to ensure that statutory obligations are fulfilled, such as making sure that due diligence is carried out in relation to protected species, and to further the conservation of biodiversity. The E&BD team are currently working to four broad themes –

- **The Local Biodiversity Action Plan** – updating this document to help guide and inform all biodiversity actions for the coming years;
- **Projects** – on-ground works arising from WLC capital funds and external grants, as well as changing land management practices on WLC land holdings;
- **Strategic and Policy** – data collection and monitoring, developing processes and guidance for WLC;
- **Advisory and Advocacy** – cross-departmental working, community engagement and citizen science, providing advice and responding to enquiries from the public.

Regulation of land use and development

The current Local Development Plan was adopted in 2018 (with LDP2 due in 2024) and has 34 Environmental Policies and a number of other policies which directly relate to the environment and/or Climate Change. These include protection of Local Biodiversity Sites and Local Geodiversity Sites of which there are currently 127 potential Local Biodiversity Site (p/LBS) and 51 Local Geodiversity Sites (LGS).

Since February 2023, WLC have adopted National Planning Framework 4 and the E&BD team have been supporting Planning Services in the delivery of Policy 3: Biodiversity, to ensure we are “Securing positive effects for biodiversity” through review and advising on planning applications and requesting appropriate mitigation and providing a standardised approach to requesting enhancements.

West Lothian Council continue to have a service level agreement with TWIC to carry out screening of planning applications against a range of potential biodiversity constraints, provided in reports to Planning and the E&BD team. TWIC also provide the council with a GIS layer of notable / protected species. This is updated annually with a further update during the year. TWIC co-ordinate and manage the LBS in West Lothian through the steering group and management of the LBS data and GIS layers.

Local Geodiversity Sites (LGS) are reviewed separately with the help of British Geological Survey, Lothian & Borders Geo-conservation Group and Almond Valley Heritage Trust. 52 sites have been identified in the LDP.



Providing public information, supporting community learning and education around nature and the environment

The Parks and Woodland team support and engage with a variety of different groups and individuals across West Lothian in relation to nature and the environment.

The E&BD team through their advisory and advocacy work – e.g. social media posts; Buglife project; ELGT wee forests community engagement; working with land owners. Engagement through Blackburn Climate Action Town project; Napier University. We anticipate many more opportunities to emerge through Local Biodiversity Action Plan (LBAP) process.

Ranger Service – engaging with the public out on sites, patrolling, organising and leading on conservation volunteering tasks; site/habitat management; working with community groups; managing Friends groups; environmental education; public events; various forms of interpretation including physically onsite as well as online through social media posts

Significant environmental impacts from the council's operations.

Waste – As of 2021, 45% of all household waste was recycled. Waste Services are working hard to increase that percentage by reducing the amount of waste in West Lothian, particularly how much waste ends up in landfill, including improvements to communal recycling and the introduction of a twin stream system to reduce contamination levels in recycled waste. Waste Services also provide advice and support to households and organisations to help them reduce, reuse and recycle through education and engagement work.

Operational Services Fleet - Emissions from the council's vehicle fleet in 2019/20 were 4,489 tonnes or just over 12% of the overall reported figure of 36,635 tonnes. In order to reduce emissions from fleet operations, WLC is seeking to phase out petrol and diesel cars, as well as phasing out the need for new petrol and diesel light commercial vehicles by 2025. Reducing the council's Fleet emissions means that we not only need to decarbonise our existing models of transport but also change the ways in which vehicles are used to deliver services across West Lothian.

Development land allocation – To meet requirements set out in the Strategic Development Plan there is a need to provide a generous supply of housing land and an effective five-year housing land supply at all times. This will have a direct impact on our environment. It will be increasingly important that development is promoted in sustainable locations where impact can be minimised and positive effects for biodiversity can be secured through application of the principles in the National Planning Framework 4 (NPF4) and Scottish Biodiversity Strategy (SBS).



SECTION 2: ACTIONS TO PROTECT AND ENHANCE BIODIVERSITY

Please describe and explain any actions that your organisation has undertaken alone or as part of a partnership to benefit biodiversity directly, to tackle the main drivers of biodiversity loss, or to achieve wider outcomes for nature and people

<p>Guidance on completing this section</p>	<p>As a Level One reporting organisation, you may wish to report on practical actions across your organisation in addition to actions on land that you manage or regulate.</p> <p>Please explain how your actions have benefited (or will benefit) biodiversity, noting successes and challenges, and any plans for future or follow-up work, such as on preparing for local nature networks or securing biodiversity enhancements in new developments.</p> <p>Actions might include:</p> <ul style="list-style-type: none"> • Contributing to actions in the Scottish Biodiversity Strategy and Delivery Plan, and on local biodiversity priorities • Leading or contributing to a Local Biodiversity Action Plan Partnership • Integrating Nature-based Solutions through Community Planning, Local Development Plans and Local Place Plans • Providing opportunities for young people and learners to connect with and understand nature through Learning for Sustainability, Outdoor Learning and through STEM subjects • Supporting a Local Records Centre • Mapping natural capital and ecosystems • Digitising habitat maps and biodiversity surveys and audits • Integrating multi-functional Green Infrastructure into spatial plans • Working at a regional scale to restore nature <p>Please include quantitative measures where possible (e.g. area of habitat restored, meadow created, of Protected Areas, Local Nature Reserves and Local Nature Conservation Sites, and the number of new developments where biodiversity is being enhanced).</p> <p>At a local level it is possible to enhance biodiversity through actions in and around buildings and new developments, such as by:</p> <ul style="list-style-type: none"> • supporting the NPF4 approach to delivering biodiversity enhancement and contributing to nature networks • providing bird boxes / feeders, or taking other measures set out in the guidance on Buildings and biodiversity, while Developing with Nature listed below • making space for nature by creating wildflower meadows, raingardens, ponds and woodlands • installing green roofs and walls; • organising staff environmental volunteering days.
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<p>Links to related resources</p>	<ul style="list-style-type: none">• NatureScot Guidance for Planners and developers on legally Protected Areas, and 30x30 and Protected Species.• Scottish Government Planning circular 1/2022: Local Place Plans and Local development planning guidance• The Scottish Biodiversity List of species and habitats of most importance for targeted conservation action.• NatureScot Guidance on Habitat management, Habitat networks and Nature Networks.• Making space for nature in the built environment – a wide diversity of projects including in schools, hospitals and town centres are highlighted in guidance on Buildings and biodiversity, while Developing with Nature outlines practical steps developers can take to enhance biodiversity in local developments.• Local Biodiversity Action Plan Partnerships (LBAPs) continue to prove invaluable in identifying local biodiversity priorities, setting targets, and delivering on national biodiversity outcomes at the local level – a leading role for local government now internationally recognised through the Edinburgh Declaration.• Taking a systematic approach to collecting, managing, analysing and sharing data has proved invaluable in efforts to safeguard and enhance local biodiversity. In most cases this is most effectively done by Local Records Centres, although where they don't operate a more <i>ad hoc</i> approach can prove effective, as outlined in Biodiversity - where to find data.• Guidance on managing Local Nature Conservation Sites systems (this is being updated in 2023).• NatureScot guidance on delivering benefits through connecting people with nature by planning for Active Travel, 20-minute neighbourhoods, Placemaking, Open Space Strategies and Green Infrastructure.• NatureScot provides advice on managing activities in lochs, rivers and wetlands in guidance on Managing freshwater, and managing Coastal development and marine pollution.• The NatureScot webpage Biodiversity - what can you do? – describes actions that can be taken around workplaces.• An overview of how Edinburgh's Nature Network was developed.• The NatureScot Guidance Note - Biodiversity Duty Explained includes further examples of biodiversity actions carried out by various public bodies
<p>Text Field</p>	<p>Updating the Local Biodiversity Action Plan (LBAP) will contribute to the actions of the Scottish Biodiversity Strategy (SBS) through laying out key transformational changes that WLC, partnership organisations and other land owners will carry out in order to help protect and enhance biodiversity across the region.</p> <p>Key stages of this delivery are:</p> <p>2021-22 LBAP</p> <ul style="list-style-type: none">- Habitat mapping for the whole of West Lothian- Condition assessments of all habitats- Building contacts with other land owners / managers and with natural history recording groups



2022-23 LBAP

- Natural Capital Assessment for all habitats - to indicate the quantity of benefits provided
- Maps produced
- Initial consultation with landowners and other stakeholders completed

2023-24 LBAP

- Stakeholder event planned in November 2023 to begin to engage with land owners, managers and other groups

Other projects that will contribute to the actions of the SBS and the LBAP are:

2021-22 PROJECTS

- Livingston North Blue Green Network – path works and invasive vegetation removal completed
- 3500 trees planted in Howden Park - low survival rate, therefore additional planting carried out
- Four “Wee Forests” planted with schools (Addiewell, West Calder, Whitburn, Bathgate) - some issues with vandalism
- Climate Change Forest site investigation work at Addiewell Bing, Caputhall, Dechmont Law
- Queen’s Green Canopy – extensive tree planting/woodland creation in Nelson Park – great community involvement with local schools who helped plant the trees
- Peatland Restoration investigations
- Tree Time scheme – campaign for donations/sponsorship for tree planting – not a huge uptake so far but additional adverting planned
- Free Trees Scheme: for planting of mature/semi-mature trees in open space
- Machinery bought to manage all existing wildflower meadows and to increase capacity for managing meadows and grassland across WLC landholdings
- Wyndford Park (part-funded through Developer Contributions, competitive Nature Restoration Fund (NRF) bid £90,366 and Scotland Loves Local £20k) – new park created: raingarden, tree planting, extensive bulb planting, woodland management, new paths, drainage, small goals and benches. Also, signage and bins.
- Falcon Brae- Ladywell, raingarden refurbishment and signage
- Nitrogen-fixing plant seeds bought for Beecraigs Animal Attraction to trial green manure
- Bat boxes purchased to provide roost features in areas where there is low roosting potential.



- Bird boxes: 6 Kestrel, 2 Barn Owl boxes installed at Almondell CP, to encourage species movement into the area.
- Building connections with other West Lothian landowners
- West Lothian had 2 trees and one ancient woodland selected as part of the 70 Ancient Woodlands and 70 Ancient Trees campaign from the Queens Green Canopy celebrations
- Easter Inch Moss Peatland Action project with NatureScot, The Conservation Volunteers, Lothian Conservation Volunteers, Lowport Centre and the Volunteer Ranger Service to clear baulks of woody vegetation, reprofiling of peat and installation of dams to improve peatland habitat- approximately 46ha of peatland – with 7000m of ditch blocked, 390 peat dams and 45 plastic dams installed on site – challenges included site logistics, weather, vandalism
- Ranger Service working in partnership with Riverlife on River Almond / Avon project, supporting exhibitions, volunteer projects and invasive species management.
- Volunteer sessions at Little Boghead Nature Park – pond and grassland management, removal of Invasive Non-Native Species (INNS).

2022-23 PROJECTS

- Greening of the Shale Trail – extensive Great Crested Newt survey carried out at Drumshoreland by Edinburgh and Lothians Green Trust with enhancement works planned for the future
- Howden Park – replanting
- Greening of the Shale Trail – tree planting and woodland management at Stewartfield Park and Uphall woods
- Tree Time scheme launched
- Free Trees ground investigations and planting
- Additional grassland management equipment purchased
- Educational equipment purchased for shared use within Parks and Woodland including bat detectors, thermal scope and camera traps.
- Additional planting within Rain Gardens as well as interpretive boards at Wyndford, Letham, Pumpherston and Cunnigar Parks.
- Willow spiling at Balbardie Park to reduce erosion and improve banking along the burn
- Beecraigs Lochside Toilets- bat roost features built in
- Meadow management at Blackridge with Sustrans volunteers – part of the Beelines project.



- Peatland management at Blackmoss Nature Park with Butterfly Conservation Bogsquad and other volunteers
- Peatland management at Easter Inch Moss – Ranger Service working with volunteers to carry out broom control, birch pulling
- Skolie Burn community days supported by the Ranger Service – grassland habitat management – on-going issues with fire-raising and vandalism
- Oakbank tree project – woodland management
- Friends of Almondell (FoA) carried out tree planting, woodland management, wildflower seeding at Almondell, supported by the Ranger Service
- Use of NRF funds to survey all potential Local Biodiversity Sites - completed by The Wildlife Information Centre (TWIC)

2023-24 PROJECTS

- The Ranger Service along with the Friends of Beebraigs and Witchcraig carried out various tasks including burn clearing, fence removal.
- The Ranger Service continue to support the River Almond water quality group
- Ecology & Biodiversity team (E&BD) INNS project – delivered by Forth Rivers Trust to survey and treat invasive species on the River Almond and Avon; Baseline survey for Signal Crayfish in the Harwood Water; Bank protection works on the Murieston Water; Nell Burn, Livingston improvement works; and water quality testing on Eliburn Reservoir
- Development and implementation of a site management plan at Witchcraig, to include woodland, grassland, wetland and heathland management.
- E&BD to arrange additional peatland restoration works at Easter Inch Moss
- Collaborating on Ash dieback disease - working with Tree and Woodland colleagues to ensure biodiversity and ecology are considered as part of the process for removal and appropriate replanting of areas.
- Conducting species specific surveys in connection with tree removal and replanting.
- E&BD have been working in partnership with colleagues in Roads to explore the practicalities and effectiveness of amphibian ladders in gully pots to ensure their safe escape/egress from drains in key areas – a trial project has been implemented with gully pot surveys being conducted in autumn 2023
- Additional sites surveyed by TWIC to update Local biodiversity sites. Survey data and site assessments will help inform Nature Networks.



Other on-going projects

Forestry - Longterm Forest Plan (LTFP) Beecraigs (270ha) will provide more open ground, especially associated with watercourses, small ponds, more diverse tree and shrub species, recovery of understorey and ground flora; Woods in and Around Town (WIAT) woodland and access plans for Almondell (32ha) included restructuring of woodland, new planting, invasive R ponticum, snowberry removal; Calderwood (70ha) removal of invasives, retention of veteran trees.

Preparation of the Tree and Woodland strategy has started which will consider LBAP and Climate Change strategies.

The Tree and Woodland team are working towards WLC's own woods all being managed according to UK Forest Standard recently updated 5th edition and will support the recent joint CIEEM and ICF statement regarding management plans for all woods.

Ash Dieback Disease Action Plan (ADDAP) – Ash Dieback Disease is a significant tree disease expected to lead to the loss of at least 75% of the ash population in West Lothian and will have long term impacts on the diversity of our landscapes, woodlands and on other associated species, as well as potential impacts on carbon capture. The ADDAP lays out plans to manage dead and declining ash trees in terms of public safety but also highlights opportunities to retain trees, where possible, especially those seeing good resistance, and replacing lost trees with suitable alternative species to help reduce these impacts and bolster overall diversity. This plan goes hand in hand with the on-going monitoring of ash trees in West Lothian by the Tree and Woodland team.

Openspace - Areas of amenity grassland have been identified by Openspace and Grounds Maintenance and are now cut annually to provide foraging/shelter and nectar rich feeding grounds for small mammals, birds and insects; Grass and vegetation areas left uncut for biodiversity enhancement.; Ponds and raingardens created or improved for enhanced biodiversity value; additional copses, trees and bulbs planted to increase biodiversity value within parks and to enhance wildlife corridors. E&BD will be working closely with the Openspace Officers to identify and enhance Nature Networks through the Openspace capital program.

Grassland Management - 22 existing meadows are managed by the Parks and Woodlands/Grounds Maintenance teams through either cutting and lifting or conservation grazing totalling approximately 43ha. An additional 14 new meadow areas have been created in the last 3 years totalling 20ha. 5 areas of bulbs have been planted for pollinators and 5 new rain gardens have been created. Over 600km of previously amenity grass now either receives no cuts or just one cut a year – reducing cuts on these areas reduces pressure on grounds maintenance teams but also allow space for nature.

Cemeteries have created several wild flower areas and uncut areas as well as reducing the use of weed killer around headstones in Kirk yards.



The Ranger Service – between 2021-23 the Rangers have worked with 1399 volunteers, carrying out over 4587 work hours of conservation work. They have carried out environmental education activities with 2622 school pupils and ran events with over 2300 attendees. They also worked with over 600 people from community groups (figures up to October 2023)

The Rangers support the Tree & Woodland team with the WIAT project at Almondell as well as working with the FoA to make improvements to Almondell & Calderwood Country Park through rhododendron control, willow spilling on the River Almond, butterfly bank management; management of Calderwood Fen Site of Special Scientific Interest (SSSI) – scything, bracken control, creation of pools, seasonal quadrat survey and recording of plants. The Ranger Service assisted a National Meadows Day event with TWIC, FoA and volunteers; supporting the ongoing Oakbank Tree project – volunteers helping to manage the woodland through a range of activities including maintaining and removing tree tubes.

The Ranger Service have been involved with Skolie Burn SSSI, working with community group to remove old fences and bracken management on lowland unimproved neutral grassland. A Five-year management plan has been signed off by Nature Scot, with the fencing of first compartment completed to allow conservation grazing using local cattle. Plans to fence a second area of the meadow for conservation grazing are in progress.

E&BD and Planning Services have been partnership working to ensure biodiversity enhancements are provided on all development sites as per NPF 4, with additional weight given to applications which could have positive impacts on Nature Networks or on priority species and habitats. We do not have a recording system in place for these measures as of yet but it is something we are looking to introduce shortly.

The E&BD team are in the process of identifying and mapping Nature Networks across West Lothian, as well as linking to neighbouring authorities. This project will continue through the LBAP update process so that local land owners, managers and other stakeholders can contribute to the overall network in a meaningful way.

Section 3: Mainstreaming biodiversity

Please outline any steps your organisation has taken to incorporate measures to protect biodiversity into its wider policies, plans or strategies. This should include decision-making structures and staff and organisational roles and responsibilities.



<p>Guidance on completing this section</p>	<p>Describe and explain your organisation is integrating or considering nature and biodiversity through its policies, plans, guidance and strategies, and how these are reflected in the structure of your organisation.</p> <p>These may include policies on estate management, Open Space Strategies, Supplementary Planning Guidance, understanding the impact of your supply chains on biodiversity, adopting sustainable procurement and purchasing policies, using Environmental Management Systems, Sustainability and Climate Change commitments or infrastructure plans such as catchment management plans or surface water management.</p> <p>Detail any areas in which your organisation has most successfully embedded ways of protecting biodiversity in your work, or has demonstrated leadership in a local or national context, including through working with others, raising awareness, or delivering landmark projects or activities.</p>
<p>Links to related resources</p>	<p>Information on Placemaking, Green Infrastructure and Open Space Strategies.</p> <p>Guidance on how to make space for nature in the built environment by Developing with Nature and on Sustainable Drainage Systems (SuDS).</p> <p>Guidance on Buildings, Highways and Infrastructure - Maintenance & biodiversity,</p> <p>Research on Maximising the benefits of green infrastructure in social housing.</p> <p>The Place Standard tool and associated Strategic Plan 2020-2023 provides a simple framework to structure conversations about place.</p> <p>Guidance on Scotland's Pollinator Strategy, projects, resources.</p>
<p>Text Field</p>	<p>The conservation of biodiversity is embedded in the delivery of Council services such as Planning, Economic Development & Regeneration Services and NETs Land & Countryside Services. This ensures that land use planning and the management of Council-owned land deliver protection and enhancements for biodiversity. The role of the natural environment and biodiversity is reflected in the Council's Climate Change Strategy (2021-28) and Adaptation Action Plan (2022-28) and will be key in the updated LBAP document.</p> <p>The West Lothian Local Development Plan (2018) policy framework supports the protection and enhancement of designated nature conservation sites, protected species and biodiversity in the wider landscape and the forthcoming LDP2 is expected to show further steps to fully integrate biodiversity into the planning process.</p> <p>The E&BD team was established in October 2021, showing a commitment from WLC to protecting biodiversity in all aspects of the council's operations and aiding the recovery and restoration of the natural environment. WLC recognise that there is a need for transformative change in order to address biodiversity loss and that the council can provide a key role in driving this change.</p>



WLC declared a Climate Emergency in 2019 and also declared a Nature Emergency in May 2023. Nature Emergency updates are provided through the quarterly Climate Strategy report to the PDSP. An annual overview is included in the annual E&BD report.

Since the E&BD team was formed, a number of actions have been taken to ensure that biodiversity and nature are integrated within WLCs policies and is mainstreamed throughout our operations. This is an on-going task but actions to date include:

- working with Planning Development colleagues to advise on how we can fully integrate biodiversity into the Local Development Plan 2 (LDP), as well as ensuring that biodiversity is considered from the early stages of Planning applications through close working relationships with the Planning Services team. Ensuring that all applicants know about and adhere to the Mitigation Hierarchy and enhancement plans are submitted alongside mitigation plans for National Planning Framework 4 (NPF4). This has included delivering ecological advice/ training to equip Planners with relevant ecological knowledge. Supplementary Planning guidance including 'Developing with Nature' show how biodiversity, both mitigation and enhancements should be a key consideration of developments and benefits to nature should be implemented throughout development projects. On average, over 100 planning applications require some ecology input over a 4-week period.
- Contributing to WLCs Climate Change Strategy and Adaptation Plan. Implementing and updating actions regarding the Climate Change Adaptation Plan and Climate Change Strategy and providing information for mandatory Climate Change reporting on behalf of NETS, Land and Countryside
- Compiling and submitting formal WLC response to the Scottish Biodiversity Strategy consultation – via PDSP and Council Executive
- Inputting into the new Local Outcomes Improvement Plan
- Creating a calendar showing ecological sensitive periods for volunteer work to minimise potential negative effects.
- Creating a generic toolbox talk on ecological considerations for contractors
- Creating a Grassland Management Strategy in partnership with Grounds Maintenance (to be approved at Committee)
- Responding to new policy/legislation as required e.g. Wildlife Management and Muirburn Bill
- Committee report templates – tick box (for Nature and Climate crises) to be added to front of report template. A checklist and guidance will be provided for officers completing reports.
- Training for Elected Members – Monday 6th November: Introduction to the Ecology and Biodiversity Team; Relevant legislation, including statutory Biodiversity Duty; overview of biodiversity-related policies within NPF4; An introduction to the new Scottish Biodiversity Strategy, including 30x30 and Nature Networks; An introduction to the Nature Restoration Fund; How the new West Lothian LBAP relates to all of these things



	<ul style="list-style-type: none"> - Offering training for council officers – CPD with different Service areas, especially those responsible for any kind of land management or works. Mandatory training for council officers is also being explored, initially to be integrated into existing Climate Change training, and also Carbon Literacy training. - Preparing a precautionary method statement for contractors working near ecological constraints to minimise potential negative effects <p>Openspace Management - As part of the Council’s qualitative assessment of a park, a score is assigned to each park owned/managed and maintained by the Council. The overall score determines if a park is “Fit for Purpose” (40 and above, out of 75) and is used to determine and programme investment in parks. There are 15 categories considered in order to calculate the overall score. This includes Biodiversity, Networks and Regulating Services. Each category currently scores 0-5 with each category given the same weighting. As part of the work in reviewing the West Lothian Open Space Plan (currently 2020-24) there has been discussion about whether the existing categories should remain, or need to be changed to reflect new policy direction, and also whether different weightings should be assigned to them. This is particularly focussed on the eco-service categories which, if they are changed, are likely to have more value (score or weighting) placed on them. The final score sheet has yet to be decided and while public safety will remain the priority for determining future investment in parks, biodiversity will continue to be a consideration when programming open space investment.</p> <p>Roads and Transportation - Policy, guidance and design requirements are being developed, which set out how climate change should be factored into road design processes including nature-based solutions.</p> <p>Procurement – the team aims to include Nature Emergency / Biodiversity considerations in Sustainable Procurement guidance and tender quality assessments for unregulated procurement (e.g. Quick Quotes) including updating inhouse Sustainable Procurement training modules to reflect the need for consideration of biosecurity, biodiversity protection and enhancement as part of the procurement process.</p>
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Section 4: Nature-Based SOLUTIONS, CLIMATE Change AND BIODIVERSITY

How has your organisation integrated biodiversity into actions on the climate emergency such as through Nature based Solutions?

<p>Guidance on completing this section</p>	<p>Climate change is a direct driver of biodiversity loss. Many species are negatively impacted by higher air temperatures, changing weather patterns and extreme events, and by higher sea levels. Many animals and plants can be badly affected by such changes and may be at risk of local extinction in regions experiencing climate impacts.</p> <p>As well as being a direct driver of biodiversity loss, climate change can exacerbate other ways in which Scotland’s nature is harmed loss. A warmer climate can enable non-native invasive species to spread more quickly. For example, rhododendrons which were</p>
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	<p>not naturally found in Scotland and which are highly detrimental because they grow vigorously and shade out our native woodland plants may become even more dominant as our climate becomes warmer and wetter. Similar problems are arising in our freshwater and marine environments.</p> <p>Combined actions for biodiversity loss and climate change can be achieved through Nature-based Solutions, which can play a vital role in helping us to protect and enhance biodiversity, achieve net zero targets, and improve people's quality of life.</p> <p>This reporting section provides the opportunity for your organisation to provide details on how you are supporting the positive contribution biodiversity can make to building resilience, and helping nature to mitigate and adapt to climate change.</p> <p>You may wish to report on a range of specific processes or activities that your organisation has undertaken, including on land you own or manage, within your buildings and workforce, and projects that you have delivered.</p> <p>Integration might include incorporating biodiversity into Nature-based Solutions to:</p> <ul style="list-style-type: none">Help Scotland and nature to adapt to climate change by developing strategies that include nature, investing in green infrastructure, restoring nature and taking action for pollinators – these should be included in climate change reportsInclusive economic growth, for example by growing nature-based industries, or investing in key natural visitor attractions.Improve health and wellbeing, for example by increasing opportunities to connect with nature for all. <p>Strategies or initiatives incorporating actions to address climate change might include:</p> <ul style="list-style-type: none">Climate Change Adaptation Plan;Local Development Plan;Regional Marine Plan;Open Space Strategy;Forest & Woodland Strategy;Green Infrastructure Strategy;Pollinator Strategy;Soil management strategy;Locally-implemented Nature Network Strategy.
Links to related resources	NatureScot provides information on different approaches to addressing climate change, including on how urban nature-based solutions can help in Scotland's towns and cities.



	<p>The Nature-based Solutions Initiative in Oxford provides information on a range of Nature-based Solutions from the UK and internationally.</p> <p>NatureScot, COSLA and the Improvement Service have published a Briefing for local authorities on Nature-based Solutions.</p> <p>The publication People, Place and the Climate Emergency includes examples and information on local nature-based solutions to deliver a range of socio-economic outcomes.</p> <p>Scottish Government Coastal Change Adaptation Plan Guidance includes a section on the importance of working with natural systems.</p> <p>Adaptation Scotland provide advice and support to help Scotland be prepared and resilient to the effects of climate change.</p> <p>The NatureScot Helping nature to adapt webpage contains useful information on making use of nature's capacity to adapt to change as one of our best tools for managing climate change impacts, including through managing native woodlands and restoring peatlands.</p> <p>NatureScot's overview of Green Infrastructure</p> <p>Guidance on Scotland's Pollinator Strategy, projects, resources</p> <p>Guidance on Soil Management including soil carbon management.</p>
Text Field	<p>The existing Local Development Plan (2018) policies promotes sustainable urban drainage systems (SUDS) and green space is implemented into the development of new commercial and industrial units, as well as redevelopment of traditional older industrial estates. The April 2019 'Flooding & Drainage' Supplementary Guidance is to be updated and LDP 2 advanced.</p> <p>With approved funding mechanisms the council will implement the actions set out for the West Lothian area in Forth Estuary Local Plan District Flood Risk Management Plan 2022-28. These actions will consider the current understood impacts of climate change on flood risk, and the development of adaptation planning to manage the long-term impacts of climate change.</p> <p>The Council continue to partner with the Central Scotland Green Network, to meet the objectives within the CSGN Delivery Plan (2023-2030) based around the four workstreams – Natural Climate Solutions; Placemaking; Health & Wellbeing and; Green Recovery.</p> <p>WLC have been implementing a number of nature-based solutions on council land holdings to build resilience whilst protecting and enhancing nature:</p> <ul style="list-style-type: none">- Falcon Brae- Ladywell, raingarden refurbishment and signage



- Nitrogen-fixing plant seeds bought for Beecraigs Animal Attraction to trial green manure
- Rain Gardens created and interpretive boards installed at Wyndford, Letham and Cunnigar Parks
- Restructuring of woodland at Blackmoss, removing conifers, leaving the edge of the peatland area clear and replanting the rest of the woodland with mixed broadleaves
- Natural Capital Assessment carried out as part of LBAP update process, to indicate the quantity of benefits provided by WL habitats (e.g. carbon storage and sequestration, temperature regulation, etc.)
- Peatland Restoration investigations
- Beecraigs Loch feasibility study to look at improving the water quality and overall biodiversity value of the site through nature-based solutions
- Plans to produce guidance for developers on species selection, planting and green infrastructure that aids biodiversity and climate resilience “Opportunities for biodiversity enhancement in development” (or Planning Guidance needed in conjunction with NPF4 / Nature scot ‘Planning with Nature’ Guidance)
- Green infrastructure and sustainable urban drainage are included in new schools, providing a living lab for students by showcasing high quality nature-based solutions for green and blue infrastructure.
- Blue and green networks are required as part of new core development areas, asset transfers and major regeneration initiatives and are woven into the West Lothian Open Space Plan Review 2020-24 and its subsequent review
- Parks & Woodland - Implement sustainable woodland management through Long-term Forest Plan prepared for Beecraigs (270ha) and Urban Woodland Management Plans for a further 131ha. Include management where possible under “Continuous Cover” regime and with a greater range of species to enable better adaption to climate change and improved mitigation against severe weather events.
- The council will explore voluntary developers’ contributions to offset carbon emissions from developments site and support tree planting on council owned sites and landholdings that contribute towards the West Lothian Climate Forest and carbon sequestration.

Projects managed through River Life: Almond & Avon are ambitious multi-partnership projects are helping to restore the natural heritage of our local rivers in liaison with local communities. Partners include WLC, Forth Rivers Trust, & SEPA, with funding from the Heritage Lottery Fund, Scottish Government. These include:

- River Almond barriers, construction completed 2022. Upgrading of five physical barriers across the River Almond and its tributaries to facilitate the passage of fish at former mill weirs. Weirs at Mid Calder, Livingston Rugby Club, Howden Bridge, Kirkton and Limefield were upgraded to improve fish passage, allowing the natural movement of gravels and sediment, enhancing the biodiversity of the river and the species that depend on it. There is potential to look at the feasibility of removing similar weirs from the River Avon.



	<ul style="list-style-type: none"> - Bathgate Meadows Nature Park (formerly the Bathgate Watercourse Restoration Project), detailed design stage. This project aims to improve the morphology and biodiversity of the Bathgate Water, Boghead Burn and Bog Burn (River Avon tributaries), enhancing green space and connecting people with nature in one of Scotland's most deprived communities. - Green engineering at Balbardie Park, Bathgate – using willow spilling and tree planting to manage bank erosion. The living structure increases biodiversity, whilst creating habitat for birds and shade for aquatic species. - INNS project – survey and treat invasive species on the River Almond and Avon; Baseline survey for Signal Crayfish in the Harwood Water; Bank protection works on the Murieston Water; Nell Burn, Livingston improvement works; and water quality testing on Eliburn Reservoir.
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Looking ahead, what do you think will be the main climate change related challenges for biodiversity over the next three years?

Guidance on completing this section	You may wish to detail any arrangements that your organisation has in place to review or monitor the implications from modelling biodiversity on land that you own or manage under future climate scenarios.
Text Field	<p>Flooding – Flood risk is a major issue within certain areas of West Lothian. The Flood Risk Management team along with partners will implement the actions set out for the West Lothian area in Forth Estuary Local Plan District Flood Risk Management Plan 2022-28. These actions will consider the current understood impacts of climate change on flood risk, and the development of adaptation planning to manage the long-term impacts of climate change. The Flood Risk Management team continue to provide advice to Planning Services (Development Management as well as Development Planning & Environment) on issues of flood risk, sustainable drainage, pollution prevention and the water environment to help ensure that development delivers benefits and that the risk it presents to the built and natural environment is mitigated.</p> <p>The Flood Risk Management team have a range of monitoring programs including:</p> <ul style="list-style-type: none"> - Progression of the outline design of the Liggat Syke Flood Protection Scheme (FPS). An updated (2022) ecological appraisal and aquatic habitat survey was carried out to identify any potential ecological constraints within the site and wider area. The FPS aims to alleviate the flood risk from the Liggat Syke and improve flood defence resilience for adjacent properties in Broxburn. Due to the potential for protected species to be present on site and potentially impacted by the works, further surveys and/or mitigation will be carried out throughout the design stage. - Telemetry - 30-plus remote sensors are installed throughout West Lothian to measure river levels, flow rates, and soil moisture levels, in real-time via a website. This system also provides alerts to council officers (and duty officers out-of-hours) of rising water levels across the council's area and can provide historic data to inform flood studies. Level sensors in some susceptible locations are used to provide an early warning to local people of rising water levels. Local people can subscribe to this service free of charge.



	<ul style="list-style-type: none"> - A high-definition webcam is installed at the upgraded Kirkton Weir, on the River Almond, as part of the first UK and Republic of Ireland network of high-definition, real-time video-feeds which show river heights, rainfall data and weather. https://www.farsondigitalwatercams.com/locations/livingston <p>Connectivity between sites – the LBAP will guide plans to increase and enhance the blue/green network across West Lothian through the implementation of Nature Networks. Surveys carried out in 2022 will act as a baseline for habitats and ecosystems within West Lothian. Updates will be carried out to this data to note changes and trends. Treeplotter is being used by Parks & Woodland teams as an asset management program which also details environmental statistics, these can also be used to detect changes and trends across West Lothian Council sites, habitats and individual tree species. 4 dataloggers are installed on 2 WLC peatland sites, measuring water levels and temperature changes – this data can be used to aid peatland management and to record changes/trends on these sites.</p>
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Section 5: Public Engagement and Workforce Development

Public Engagement

<p>Guidance on completing this section</p>	<p>Detail communication and education activities, you have undertaken to inform or engage directly or indirectly with communities, young people and the public. This might include actions to raise staff, customer and public enjoyment and understanding of, and connection with, biodiversity and nature, such as:</p> <ul style="list-style-type: none"> Supporting volunteering; Exhibitions and events; School outreach; Outdoor learning; Citizen Science initiatives; Providing a Countryside Ranger Services or public outdoor education programmes; Providing information on your website on how to connect with local nature; Blogs and press releases about biodiversity and nature.
<p>Links to related resources</p>	<p>Ideas on volunteering outdoors.</p> <p>Stats, stories, activities and inspiration to help bring nature and landscapes to life for young people and learners through education, including Beyond your boundary: easy steps to learning in local greenspace, and the Outdoor Learning Directory - a useful source of information and resources.</p>



	<p>Ideas on citizen science activities that can increase public enjoyment, understanding and connection with nature.</p> <p>Information on how to make more use of Scotland's outdoors as 'Our Natural Health Service'</p>
Text Field	<p>2021-22</p> <ul style="list-style-type: none">- 5 new website pages created for Ecology and Biodiversity- Buglife ran invertebrate workshops in wildflower meadows summer 2021- Buglife wildflower meadow and freshwater workshops, to identify and record invertebrates – six workshops over summer 2022- Purchase of specialist recording kit for future projects: Bat recorders, camera traps etc.- Skolie Burn - work with the community group and NatureScot to improve condition of SSSI Grassland through adaptive management.- Community Choices - working with Grounds Maintenance staff to deliver a plan for involving communities and seeking improvements to biodiversity, though strategic relaxation of ground maintenance (grass cutting) to connect pollinator routes.- Production of Livingston's 60th booklet of guided walks, together with Corporate Services team- Hosted event and information at Beecraigs for Scottish Badgers Week with the Ranger Service- New interpretation with the Beecraigs Visitor Centre created by the Ranger Service, focused on native birds and mammals, geology, and natural history.- Ranger Service ran Forest Schools with 4 classes from WL schools. <p>2022-23</p> <ul style="list-style-type: none">- Regular social media posts throughout the year to highlight local wildlife sites, national campaigns, local campaigns, events, etc. and to promote the use of iRecord/iNaturalist for recording wildlife- Buglife contracted to lead workshops over the next 4 years to help build a cohort of citizen-scientists in West Lothian- Four "Wee Forests" planted with schools (Addiewell, West Calder, Whitburn, Bathgate)- Skolie Burn - work with the community group and NatureScot to improve condition of SSSI Grassland through adaptive management



- Community Choices - working with Grounds Maintenance staff to deliver a plan for involving communities and seeking improvements to biodiversity, though strategic relaxation of ground maintenance (grass cutting) to connect pollinator routes.
- Ranger Service ran its annual public bat walk at Almondell
- Ranger Service organised Wild Wednesday sessions across WL, engaging with communities about wildlife, nature, sustainability and responsible access outdoors.

2023-24

- The Ranger Service and E&BD team jointly delivered Wild Wednesday's BioBlitz events. Over 400 attended over the 2 days at Almond Park and Cambridge Pond. 500+ species records logged on iRecord/TWIC. Supported by a number of other organisations and WLC departments.
- Various Ranger Service public events including bat walks and badger watch
- Regular social media posts throughout the year to highlight local wildlife sites, national campaigns, local campaigns, events, etc. and to promote the use of iRecord/iNaturalist for recording wildlife
- E&BD have organised various toolbox talks and CPD sessions with services to give a broader understanding of the Councils Biodiversity Duty and how our operations relate to local, national and international legislation and policies

Other on-going projects

The Ranger Service - As a front facing service, the Rangers engage with the public, community groups and other organisations out on site, through events and activities, social media post and working with various volunteer groups and individuals. They work with community groups to promote a sense of ownership and support them to make physical improvements to their parks, local semi-natural sites and greenspaces.

Climate Change Strategy – As part of the Climate Change Adaptation Action Plan, further summits involving secondary school pupils, similar to the 2019 session at Howden Park Centre, will be organised by the Community Planning Partnership to gauge the success of various forthcoming climate change related campaigns and seek further views on action. Developing briefings for West Lothian communities as to what community resilience on climate change issues means and what resources communities can access. Promote through sustained engagement with communities. Ensure climate disadvantage is addressed through: • Flood Risk Management actions plans; • Community Resilience Planning; • WL Open Space Plan and • Regeneration and link to new Local Outcome Improvement Plan reviewing SOA.



	<p>Climate Action Town Blackburn - Architecture and Design Scotland (ADS) is helping towns to take action to tackle the climate emergency. Helping communities to protect themselves from the impacts of climate change, focusing on how “we can adapt the ways we live, work, play and move in our cities, towns and villages. ADS have been working with school pupils, local people, council officers and community organisations to:</p> <ul style="list-style-type: none"> - bring Blackburn into the climate adaptation conversation: - challenge and explore what types of place-based action communities can take in small towns: this action is guided by the eight principles of a carbon conscious place - explore opportunities to support communities to deliver real change on the ground: these communities are in areas with historically limited action on climate change - use this work to outline learning for inclusive climate action at a town scale: this learning can be applied in places across Scotland and beyond.” <p>The project is a finalist in the forthcoming COSLA Excellence Awards in the “Just transition to a net zero economy” category. A community workshop was carried out in October 2023, bringing together different groups, organisations and Council officers, as well as local pupils to discuss climate change, impacts, challenges and potential actions at a local level.</p>
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Workforce development

<p>Guidance on completing this section</p>	<p>Detail any activities that have been undertaken to support the development of your workforce, particularly in relation to skills relevant to biodiversity, nature, outdoor learning and community engagement in the natural environment.</p> <p>Activities might include:</p> <p>Staff training, education and capacity building; including through CPD events for example from the Improvement Service and Chartered Institute of Ecology and Environmental Management.</p> <p>Hosting conferences, exhibitions and events;</p> <p>Providing a Ranger service;</p> <p>Collaborative working with other organisations and sharing best practice</p>
<p>Text Field</p>	<p>Work force development activities include:</p> <ul style="list-style-type: none"> - Working with Graduate Placement to collate data on protected species and INNS - Creation of a calendar showing ecological sensitive periods for volunteer work to minimise potential negative effects. - Creation of generic toolbox talk on ecological considerations for contractors



	<ul style="list-style-type: none"> - Meetings with officers from other Local Authorities on various issues including NPF4, Scottish Biodiversity Strategy, LBAPs, Biodiversity Net Gain and Climate Change - Sharing examples of good practice – contributing information about WLC bog garden creation in parks to NatureScot guidance https://www.nature.scot/wilding-our-parks-case-studies - Sharing examples of good practice in West Lothian– i.e. sharing information via NatureScot about the B-Lines initiative as our contribution to the Scottish Pollinator Strategy; sharing information about our innovative new LBAP process with Officers from other LA's - 'Tour' of WLC parks raingardens with reps from Edible Estates and Scottish Water - Delivery of ecological advice/ training for Grounds Maintenance staff - Delivery of training on NPF4 / Biodiversity Duty / species protection for FRM team - Advising Planning Services on new requirements of NPF4 and biodiversity with regard to new developments on WLC land and long-term biodiversity management - Delivery of training on NPF4 / Biodiversity Duty / Natural Capital for the Property Services team. - Giving advice on wildlife gardening to Housing Services staff, with regard to tenants' gardens - Meetings with officers from other Local Authorities on various issues including NPF4, Scottish Biodiversity Strategy, LBAPs, Biodiversity Net Gain and Climate Change - Working alongside the Ranger Service to update management plans and plan delivery of conservation management on site with volunteers
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Identify any opportunities that are available to your staff to take part in practical actions

<p>Guidance on completing this section</p>	<p>Activities might include:</p> <p>Volunteering days, for example with environmental Non-Governmental Organisations;</p> <p>Participation in staff networks that aim to deliver on or promote biodiversity objectives;</p> <p>Opportunities for secondments to other organisations working on biodiversity and conservation.</p>
<p>Text Field</p>	<p>At present there are few opportunities but this is something we will look at addressing in the near future.</p>



Section 6: Research and Monitoring

Describe any research activities that your organisation has undertaken to help develop understanding and awareness of biodiversity

<p>Guidance on completing this section</p>	<p>Detail relevant research activities undertaken to raise awareness and understanding of nature and biodiversity both internally and externally, either alone or in partnership with others. Where relevant, summarise the key changes that this research has supported within your public body.</p> <p>This might include research papers, surveys or reports undertaken by your organisation.</p>
<p>Text Field</p>	<ul style="list-style-type: none"> - Inputting into national Splatter project which identifies and maps animal road kills; identify hotspots to inform signage for Roads department to help reduce road kills and promote biodiversity richness. - Work with Forth Rivers Trust and use of NRF funding to install a fish counter for the River Almond to monitor performance in early 2023. The counter uses electrodes to count fish swimming past the equipment in the fish pass. It also records date, time, direction, and conductivity. - In 2022 Forth Rivers Trust carried out the Outfall Safari citizen science project on the River Almond, supported and part funded by WLC - Buglife contracted to monitor biodiversity of B-Lines meadows for next 4 years - Monitoring new bird boxes at Almondell <p>Annual surveying</p> <ul style="list-style-type: none"> - E&BD and Ranger teams annual badger sett surveys within the Country Parks to monitor use. - Bat box occupancy monitoring annually within the Country Parks – replacement programme of defunct old wooden boxes (under licence where required) - Working with Lothian Bat group to carry out National Bat Monitoring Programme/waterway surveys on River Almond and hibernacula surveys at Hillhouse Mines- with volunteers. - The Flood Risk Management team program inspections of environmental monitoring sites, in the interests of water quality and public safety. The Council owns a number of sites comprising industrial and post-industrial land including some made up of rehabilitated mineral substrates and a former domestic landfill site. The sites include treatment systems to remediate leachate and precipitate prior to issue into receiving watercourses and sustainable drainage systems to improve the quality of run-off prior to issue into sensitive receptors. The treatment systems vary according to the type of pollutant, the location and the risk each presents.



What follow-up actions or monitoring have you undertaken to assess the impacts of the actions you have taken? How have you measured this? If you do not carry out any monitoring activities, please explain why.

<p>Guidance on completing this section</p>	<p>Where appropriate, you may wish to report on monitoring of:</p> <ul style="list-style-type: none"> Your impacts on local biodiversity priorities and national and international biodiversity targets; Enhancing biodiversity in local developments Biodiversity programmes or projects that you have delivered either alone or in partnership with others; Implementing strategies or policies; Physical environmental parameters, such as soil, weather, coastal erosion, and local hydrology; Organisational capacity and development in relation to biodiversity.
<p>Links to related resources</p>	<p>Information on biodiversity data, including obtaining and sharing data from Local Records Centres Biodiversity - where to find data.</p> <p>NatureScot reports on many different surveys to better understand how people in Scotland use, enjoy and value the natural environment.</p> <p>The State of Scotland’s Nature report provides a useful overview (this will be updated in 2023).</p> <p>The National Biodiversity Network provides a single hub for biodiversity data management in the UK.</p> <p>Biological Recording in Scotland is a useful source of information on surveys and biodiversity data management in Scotland.</p>
<p>Text Field</p>	<ul style="list-style-type: none"> - Forth Rivers Trust carry out ongoing INNS, electrofishing and Riverfly monitoring on the River Almond and Avon, using trained local volunteers - Buglife employed to carry out condition assessments of B-Lines meadows - Napier MSc student research to assess biodiversity of Buglife meadows Summer 2022 - Monitoring of amphibian ladders in gully pots - Dataloggers at Blackmoss and Easter Inch Moss to monitor trends in ground water levels and temperature which can give insight into effectiveness of peatland restoration works - Napier MSc Student research to compare biodiversity of Buglife meadows and ‘relaxed’ grasslands Summer 2023 - NVC and Greater Butterfly Orchid surveys at Balvormie Meadow to inform ongoing conservation grazing regime. Skolie Burn SSSI and Calderwood Fen as part of the SSSI are monitored by volunteers.

Does your monitoring show any significant trends or highlight any areas of concern?



<p>Guidance on completing this section</p>	<p>Trends or areas of concern might include those related to:</p> <ul style="list-style-type: none"> The conservation status of habitats that you manage or deliver programmes to protect; The ecological health of land that you own or manage; Adverse recordings of water or soil quality; Increases or decreases in species present.
<p>Text Field</p>	<ul style="list-style-type: none"> - Dataloggers at Blackmoss and Easter inch Moss - Napier MSc Students’ research has so far shown that a) meadows can be just as biodiverse if created through a change in management vs manual seeding, if there is a good seed bank and diaspore resources present; b) plant species richness can significantly <i>decrease</i> invertebrate abundance [requires further research] c) to increase species richness as a whole, a mix of growing techniques is beneficial; d) brownfield sites may have potential to be just as effective as managed wildflower meadows in conserving pollinators (depending on the site), in terms of species richness and abundance, although further research is required, as the number of pollinator visits <i>per flower</i> were shown to be higher in managed meadows; e) brownfield sites along green corridors or near other greenspaces outperformed sites within more built-up areas. - NVC and Greater Butterfly Orchid surveys at Balvormie Meadow to inform ongoing conservation grazing regime. - Skolie Burn SSSI and Calderwood Fen as part of the Calderwood SSSI are monitored by volunteers.

Have you added any data collected to the National Biodiversity Network or your Local Records Centre?

<p>Text Field</p>	<ul style="list-style-type: none"> - General use of iNaturalist / iRecord and promotion of its use to general public - BioBlitz - Badger Sett records - Protected species <p>Many projects in the pipeline which will have on-going/future monitoring built in but we are not at delivery stages just yet – planned for 2024</p>
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Section 7: Biodiversity highlights and challenges

Describe your organisation’s main achievements for biodiversity over the reporting period and what you are most proud of (this can include processes, plans, projects, partnerships, events and actions).



<p>Guidance on completing this section</p>	<p>As a Level One reporting organisation, it is likely that you will own or manage land, regulate land use, or have biodiversity as one of your main responsibilities. Examples of key achievements in this context might include:</p> <ul style="list-style-type: none">Updating your LBAPIntegrating nature in your Local Development PlanLeading or contributing to programmes or projects that directly support actions in the Scottish Biodiversity Strategy, or contribute to international Biodiversity Targets;Demonstrating national or international leadership or expertise in relation to biodiversity;Meeting your strategic aims in relation to biodiversity;Improvement in habitat or ecological status;Notable species present or recorded;Completion of key projects;Funding achieved or delivered;Volunteering days or time invested;Provision of successful education or public engagement activities.
<p>Text Field</p>	<p>Challenges</p> <p>Contractor availability and specialist knowledge for urban peatland sites like Easter Inch Moss and Blackmoss can cause difficulties and delays. In general terms there seems to be a lack of specialist peatland contractors available to undertake work.</p> <p>Competing needs for development and open space - A major challenge also relates to a lack of clear and connected thinking from decision makers. With targets on planting and targets for housing etc. not always in line with each other and a conflict in available landholdings. With no clear answers on which of the many priorities are in fact the top one, there is usually a compromise made, but compromise is usually not in favour of nature. The E&BD team will continue to work closely with Planning Services through the development of the LDP2 to ensure that only sustainable sites, where clear mitigation and positive outcomes for biodiversity can be secured, are developed.</p> <p>Vandalism of trees planted for biodiversity / climate change has been a challenge of the last three years. This is a common issue, not just with council planting, but also occasionally with community planting projects too. The damage has been due to many things - from the inadvertent attractiveness of plastic tree guards as toys for dogs, to the deliberate destruction of Standard trees. In</p>



almost all cases, increased community communication and engagement coupled with replanting has reduced or eliminated any ongoing vandalism. However, vandalism does continue to be a consideration in all projects.

There is also an issue with public perception as although awareness of biodiversity is increasing, there is a lot of work to do to change mindsets of neat and tidy open spaces to a more relaxed 'wild' feeling area.

Highlights

Creation of the E&BD team in October 2021 – 3 posts in place until 2026, and securing a capital budget to help deliver biodiversity enhancements on WLC land holdings.

Updating the LBAP - West Lothian hasn't had a 'working' LBAP since 2009. In 2021 funds were secured from the council's Climate Emergency Fund to pay for an updated habitat map of the whole area, and a natural capital audit. In 2022, Natural Capital Solutions, with WSP, were engaged to provide us with a GIS habitat map of West Lothian using the UKHab classification. As a trial experiment, DEFRA biodiversity metric scoring was also applied to all the polygons mapped, in order to provide a rough baseline assessment for the quality of habitats across the area. The process of working out the habitat scoring meant that the Distinctiveness, Condition and Strategic Significance of the habitats was assessed, using a suite of conditions and assumptions as discussed and agreed between WLC and the team. This was a challenging, but very informative process to go through and will be particularly useful in the context of Nature Network planning. Ten percent of the habitats within WLC ownership were then ground-truthed and 10% of priority habitats out with WLC's ownership were also ground-truthed. Once habitat classes had been mapped and assessed, algorithms were applied to the polygons and heat-maps of 11 ecosystem services provided by the habitats were also produced. The ecosystem services assessed were: carbon storage and sequestration, air purification, noise regulation, local climate (urban heat) regulation, pollination capacity, water flow regulation, water quality (sediment yield and nutrient deposition) regulation, food production, timber production and accessible nature. The whole process has provided the Ecology and Biodiversity team with a wealth of data that we can use to inform the LBAP, and to plan 30x30 protected areas and Nature Networks across the whole area. The team has already supplied carbon sequestration/storage data to our Climate Change team, and we have started to analyse and interrogate the data in our everyday work, exploring for which purposes and at which scales it's most useful. The next stage in our LBAP/Nature Networks process is to engage with stakeholders across West Lothian, before producing a meaningful ten-year Biodiversity Action Plan from 2024-34. This will, in turn, be used to inform the council's LDP2.

Education/partnership- For the last two years MSc students from Napier University have used West Lothian grassland habitats as the focus of their research theses. This work has helped us to assess the success of our wildflower meadows, and also to inform the most effective changes in maintenance that will increase the biodiversity of our grassland assets. The positive experiences from this work have also inspired students to undertake further research into SuDS basins as the subject of PhD research. We hope to continue this partnership approach to research and the practical application of findings into the future.



	<p>We have also worked in partnership with Buglife on our wildflower meadow planning and creation projects. All our meadows are part of the UK-wide B-Lines initiative, and Buglife have provided meadow monitoring and community engagement workshops for the council for two years. The council has contracted Buglife to continue this work for another 4 years, so that we can build up a longer-term picture of how our meadows are performing and also build a cohort of citizen scientists who can assist with monitor the biodiversity of our meadows (and surrounding areas) in future.</p> <p>Over 10,000 trees have been planted over the last 3 years on WLC land holdings through various projects by staff, contractors and volunteers.</p> <p>This year we have had sightings for the first time of Beavers on the River Avon and an increase in sightings of Pine Marten as well. Future projects will look at monitoring Pine Marten numbers to get a better idea of current distribution and where there are key opportunities for connectivity of suitable habitat.</p>
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Looking ahead, what do you think will be the main challenges over the next three years?

<p>Guidance on completing this section</p>	<p>Challenges might include:</p> <ul style="list-style-type: none"> Economic and resource pressures; Delivery of cross-cutting actions; Preventing further loss of habitats and species; Effective management of invasive non-native species; Pressures for space; Need to meet targets; Encouraging enhanced partnership working.
<p>Text Field</p>	<p>LDP2 – The increased need to find a balance between development and biodiversity. Making sure that only appropriate, sustainable sites are developed and that suitable enhancements are put in place to secure positive outcomes for biodiversity.</p> <p>NPF4 - A system that helps us to oversee the implementation and monitoring of enhancements conditioned by Planning is required going forward as with NPF4 now in place, the number of sites having to provide enhancement plans will increase, putting added pressure on Planning and Enforcement Officers.</p> <p>INNS - Invasive species are one of the biggest threats to our natural environments in Scotland, not only are they harmful to wildlife and habitats but are costly to the economy and can even impact on our health and way of life. West Lothian requires an extensive long-term strategy for tackling INNS, including identifying budgets to carry out necessary works.</p>



Job security and budget - West Lothian Council have shown a clear commitment to protecting biodiversity but contracts are only in place until 2026. Increasing pressures on budgets could potentially result in a reduction or loss of this team, and/or its associated capital budget which is required to deliver key projects now and in the future.

Partnership working with private landowners – the need for incentives for private landowners (rural payments, forestry grants, etc.) will play a key role in delivery of the Scottish Biodiversity Strategy and WL LBAP. There is the potential for investment from the private sector in the future, which could incentivise many landowners to carry out restoration or creation of habitats but this needs to be properly managed to prevent ‘green washing’ by companies looking for biodiversity credentials. Landowners, including WLC will need support in obtaining private investment for projects.