



West Lothian Council on the

Scottish Biodiversity Duty 2015 -17

Second Report

1 Introduction

Under the Nature Conservation (Scotland) Act (2004), all public bodies in Scotland are required to further the conservation of biodiversity when carrying out their responsibilities. The Wildlife and Natural Environment (Scotland) Act (2011) 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. The first report was published in January 2015 covering the period 2011-2014.

The Scottish Government published *Scotland's Biodiversity: It's in Your Hands in 2004* which aims to "conserve biodiversity for the health, enjoyment and well-being of the people of Scotland, now and in the future". This Scottish Biodiversity Strategy was updated in June 2013 with the 2020 Challenge for Scotland's Biodiversity. This update to the Strategy reflects international commitments and the European Union's Biodiversity Strategy for 2020. It focuses on the desired outcomes for 2020 to halt the loss of biodiversity in Scotland and to restore the essential services and benefits to society that a healthy natural environment provides.

The following is West Lothian Council's report on how, as an organisation, it has addressed its biodiversity duty over the period 2015-17. It follows a layout suggested by the Scottish Natural Heritage.

Data Label: Official



Geodiversity site at Hopetoun Foreshore

Governance, Leadership and Management

West Lothian Council is a local authority with responsibility for an area west of the capital, Edinburgh, between the Firth of Forth on its north boundary, the River Avon to the west, the River Almond on its east boundary and the Pentland Hills along its south boundary.

The council is made up of 33 elected councillors representing nine wards. The council is currently led by a minority Labour Group administration. The council operates through a system of committees and sub-committees with officers reporting to committees on relevant matters.

All committee reports include a section on Policy & Legal aspects, including SEA and sustainability issues.

The council is also a re-signatory to the renewed Central Scotland Green Network concordat, the Climate Change Declaration, Scotland's Geodiversity Charter (2018-23), which was recently re-signed in November 2017 and is considering the Woodland Trust's *Charter for Trees*.

West Lothian Council: Environment Policy Development and Scrutiny Panel

West Lothian's main source of governance on biodiversity matters is the Environment Policy Development and Scrutiny Panel (PDSP) that comprises elected members who, through officers develop new policies for the council, or review existing policies if changes are considered necessary.

While it does not have the power to make decisions, it can make recommendations to the Council Executive. The Environment PDSP has responsibility for consideration of a wide range of environmental reports, including biodiversity, as well as the emerging Climate Change Strategy and associated Action Plans, including the annual Scottish Climate Change Declaration report.

The Chair of the Environment PDSP, currently Cllr Tom Conn, is the executive member with portfolio responsibility for environmental matters.

While West Lothian Council does not have an ecologist, or local biodiversity officer in post, it has entered into a Service Level Agreement (SLA) with The Wildlife Information Centre (TWIC) since 2006 to provide some of these services. There are three components to the SLA:

1) Planning screening

This system involves checking the boundaries of planning applications within West Lothian against a range of potential biodiversity constraints and providing reports to Development Management listing all constraints per application. The systematic checking of all planning applications for impacts on biodiversity contributes to the fulfilment of a local authority's biodiversity duty as required in the Scottish Biodiversity Strategy. The checking system involves cooperation between local authority and TWIC staff as follows. On a weekly basis:

- a) council's nominated officer will extract new applications for that period and e-mails the data (site boundaries and application details in GIS format) to TWIC;
- b) TWIC checks all applications for biodiversity constraints and e-mails a report listing constraints to the council's nominated officer.

The statistics for the previous three years are as follows:

Year	TWIC screened planning applications	Potential biodiversity constraint identified	Potential biodiversity constraint identified
2014/15	741	279	37.7%
2015/16	900	350	38.9%
2016/17	910	292	32.1%

2) Notable / protected species (Geographic Information System) GIS data

This is a licensed product supplied by TWIC to the council as a GIS layer and associated database. The licence includes an up-to-date dataset at the beginning of financial year (first quarter), a minimum of one further update during the year (normally the third quarter) and the ability for West Lothian Council to request an update once during the year to ensure the most current data available at a specified point in time.



Binny Craig

3) Local Biodiversity Sites system management

TWIC co-ordinate and manage the Local Biodiversity Sites system in West Lothian on behalf of the council. Specifically, TWIC undertake, within the agreed time, the following work:

1. co-ordination of the LBS Steering Group to develop work programmes, site selection and review and to provide the secretariat for one meeting in the year.
2. management of LBS data – maintaining list of LBS sites, updating records as new information becomes available.
3. maintenance and provision of GIS layer of LBS sites.
4. assessing sites (target six sites annually) as required and notifying owners when required.
5. once sites are confirmed as LBS producing sites statements and notifying landowners.

The existing *West Lothian Local Plan* was adopted in 2009 with the commitment to review the 29 **Local Wildlife Sites** (now termed potential **Local Biodiversity Sites**) listed in the local plan. The pLBS Working Group is chaired by the council and administered by TWIC and consists of the council's Planning Services & Parks and Woodland Service, Scottish Natural Heritage, Scottish Wildlife Trust and several local biodiversity experts.

Regionally Important Geological & Geomorphological sites (RIGS) now called **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 emerging *West Lothian Local Development Plan* (2015) and their detail shown in the Supplementary Planning Guidance of 2016 *West Lothian placed-based Green Networks (including Local Biodiversity and geodiversity sites)*.

It is estimated there are approximately 130 potential Local Biodiversity Sites (pLBS) across West Lothian, but only approximately 65 of these have had an ecological survey that have allowed assessment and confirmation under the LBS criteria. These LBS and pLBS are shown in the local development plan and discussed with landowners. Site Management Briefs will be prepared, potentially with the assistance of Scottish Natural Heritage, which will identify key management actions and potential sources of grant funding.

2 Mainstreaming

The conservation of biodiversity is generally 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*. The council is currently working towards producing an *Adaptation Action Plan* in 2018 after reviewing internal procedures on climate change issues.

The adopted *West Lothian Local Plan* (2009) and the emerging *West Lothian Local Development Plan* (2015) policy framework supports the protection and enhancement of designated nature conservation sites, protected species and biodiversity in the wider landscape.

The statutory *Strategic Development Plan* (SESplan 2015), *Local Development Plan* and non-statutory planning guidelines reflect the overarching aims of the Central Scotland Green Network of delivering connected green corridors, and protecting and enhancing the natural environment.

The inclusion of biodiversity in assessments and standards such as Parks Quality Standards and certification under the UK Woodland Assurance Scheme are also integral to the management of council land.

The council also encourages residents to have a greater appreciation of the importance of conserving and enhancing the biodiversity of the area through the council's own management and also through individual action. It does this through its Education Service with the majority of schools being involved in the Eco-schools programme which seeks to engage the whole school in good environmental practice including caring for their school grounds. Schools are often assisted by the Ranger Service which offers a range of sessions for local schools and groups to explore and learn about their local habitats (Approximately 50 per year).

Example of schools engaging in Greenspace project:

- The James Young High School
- St Ninian's Roman Catholic Primary School
- Riverside Primary School
- Letham Primary School
- St Columba's Roman Catholic Primary School
- Murrayfield Primary School
- St Mary's Roman Catholic Primary School
- Bridgend Primary School
- Dedridge Primary School

Eco Schools are now embedded in West Lothian schools, who take responsibility for sustainability. Also relevant is that Outdoor Learning is inherent in HIGIOS 4 – ‘How good is our school’, so schools are increasingly engaging in the outdoors. There are currently 117 schools registered with the Eco-Schools programme in the West Lothian area.

The Rangers also run ‘*Forest Schools*’ with a number of classes e.g. at Dechmont Infant School and Inveralmond Community High School, Greenrigg Primary School and Harrysmuir Primary in 2016. Grounds for Learning have also worked directly with WLC schools to improve their grounds as spaces for active play using natural materials and also to create features which provide opportunities to learn about the natural world.

The rangers also provide environmental education to the wider public through four ‘*Wild Wednesday*’ activity days during the summer holidays at different greenspaces around the district, a programme of themed walks and other activities in Country Parks, on-site interpretation and also on-line posts on the council’s website and facebook page.

West Lothian best sites for nature are identified as Local Biodiversity Sites.

The council has three country parks at Almondell & Calderwood, Beecraigs and Polkemmet managed by the Parks and Woodland Team, with Calderwood being a Site of Special Scientific Interest. There are two publically owned Local Nature Reserves at Easter Inch Moss & Seafield Law and Harperigg Reservoir.

Programmes such as Eco-schools and the outdoor play the Learning in Local Greenspace project (SNH / Learning through Landscapes) are helping to deliver biodiversity gains within schools and education.

A list of WLC plans, policies and strategies which reflect biodiversity objectives are given below:

- *West Lothian Open Space Strategy* (Interim Review – 2015) – and is under review for publication in 2020 to align with capital programme;
- *Allotment Strategy* – that is under review to become a “Food Growing Strategy”;
- *West Lothian Climate Change Strategy* (2016);
- *Local Development Plan* (2015) – that should be adopted in Spring 2018;
- *Edinburgh & Lothian Forestry & Woodland Strategy* (2012-17)- that is still valid and the Action Plan has just been updated;
- *Sustainable Procurement Policy*; and
- *Tree Safety and Management Plan* (2017).



Woodland, Harperrig

3 Action s taken to improve biodiversity conservation

West Lothian Local Biodiversity Action Plan: *Planning for Biodiversity Action 2005-09*

This was the second biodiversity action plan for West Lothian. However, this plan had not been updated but its eight priority strategic habitats remain valid:

1. Rivers and streams
2. Farmland- grass and cultivated land
3. Woodland
4. Lowland raised bog
5. heather moorland
6. Coastline
7. Oil shale bings
8. Union Canal

and informs the various project work as outlined:

Easter Inch Moss & Seafeld Law Local Nature Reserve (LNR)

West Lothian's first LNR was designated in 2006. The local management group made up of interested locals, councils officials from Planning Services and Parks and Woodland Service and occasionally the Police, continue to meet twice a year, albeit this is a reduction in the original quarterly meetings that have proved hard to resource.

Central Scotland Green Network Trust (CSGNT) in 2011 funded the revision of the original Management Plan. This involved a hydrological survey and a Phase 1 habitat survey.

The council was successful in obtaining an initial £35k grant from the SNH Green Stimulus: Peatland Restoration Fund in 2013 for phase 1 damming works on the Moss and a further £26k in 2014 from the same fund for further damming and scrub clearance work. Data loggers relating to water depth have been installed. Level sensors located in boreholes coupled with GPS-enabled data loggers allow the monitoring and recording of water table levels in real time and will inform the success of measures to improve the retention of water within this locally rare raised bog. Extensive damming work has also been carried out by conservation volunteers. A further application has been submitted in 2017 to the SNH Peatland Restoration Fund for more damming work.

The Ranger Service organised a 'Moss Fun Day' in September 2014 that attracted over 200 local people and continue to work with local primary schools especially in Blackburn, including Murrayfield Primary School where they planned a special visit all about peat bogs. (2015).



Black Moss, Armadale

Similar to Easter Inch, the council was successful in obtaining a £20k grant from SNH Green Stimulus: Peatland Restoration Fund for the council owned Black Moss. This allowed a hydrological survey and Management Plan to be prepared. In tandem, SNH acted as Agent and oversaw the initial damming works on the Moss via a contractor in early 2015.

There have been discussions with the adjacent landowner about managing the part of the Moss in private ownership. Central Scotland Green Network Trust carried out a Phase 1 habitat survey on both private and public parts of the moss in September 2014 due to the need to carry out the survey at an appropriate time in the survey season.

The *Draft Management Plan* was discussed with representatives of Armadale Community Council and an associated Action Plan produced that will allow various interested parties to lead on biodiversity conservation works related to enhancing the bog over the next five years.

Due to numerous local fires on the moss, a Fire Plan was produced with Lothians Fire Service.

Harperrig Reservoir Local Nature Reserve (LNR)

While the Local Nature Reserve has been through the committee designation process, it had not formally been implemented as the LNR Management Group disagreed on the status of the car park at the west end of the reservoir. However, a successful application to West Lothian Land Trust for car park improvements was obtained in 2014 via Kirknewton Community Development Trust and implemented in 2016.

The initial Management Plan (2009-14) was revised, underwent public consultation and agreed at the council's Environment Panel in December 2015. This contains a number of biodiversity elements e.g.; further works on the Wildlife Refuge to the west of the causeway bridge.

The residents, land owners and land and reservoir managers continue to meet on a bi-annual basis facilitated by Planning Service and Pentland Hills Regional Park Service Rangers as the reservoir is located within the Regional Park.

Geodiversity

An important strand of biodiversity is geodiversity. While the council signed the original *Scottish Geodiversity Charter* in December 2012 it re-signed the revised Charter (2018-23) in November 2017. The Charter encourages determined and collective action from all sectors – public bodies, commercial businesses, land owners and managers, academics, teachers, voluntary organisations and individuals – to fulfil the vision and so ensure that Scotland’s geodiversity is adequately considered and conserved.

In addition, to re-signing the revised Charter, a *West Lothian Geodiversity Action Plan* has been prepared and the West Lothian Geodiversity Working Group involving British Geological Survey (BGS), SNH, Almond Valley Heritage Trust and Lothian and Borders Geo-Conservation Group.

Following the BGS comprehensive field survey of over 200 potential sites representing a wide range of geological eras across West Lothian in 2005/06, the best 51 sites have been identified and listed in the Local Development Plan. More details are given in the *West Lothian place-based green networks* supplementary planning guidance (2015).

All the interpretation leaflets relating to Kirkton Quarry, Petershill by Bathgate and Binny Craig and Witchcraig site in the Bathgate Hills along with Auchinoon Quarry, by Harperigg have all been updated and placed on the council’s website. Work with Edinburgh University Geosciences Graduate Outreach Project has produced a geodiversity trail and leaflet at Society Point, Hopetoun. In addition, Kirkton Quarry, owned by WLC, had scrub woodland removed from its rock faces after SNH raised concerns about the poor condition of this SSSI in 2017.

Supplementary Planning Guidance: *Planning for Nature – Development Management & Wildlife* (2015)

In spring 2015, West Lothian Council adopted [Supplementary Planning Guidance: *Planning for Nature – Development Management & Wildlife*](#). This was instigated by Scottish Natural Heritage as a case study for the production of a best practice example of supplementary planning guidance (SPG) for other local authorities to help developers assess and understand natural heritage issues and the planning process.

This resulting guidance (see link below) sets out how the biodiversity (wildlife and habitats) and geodiversity (rocks, soils and fossils) of the West Lothian area will be taken into account when considering all development proposals.



Supplementary Planning Guidance: *Residential Development Guide* (RDG) (2017)

The *Residential Development Guide* Supplementary Planning Guidance (SPG) was updated in 2017 and addresses, among a wide array of development issues related to house building, biodiversity issues that need considered.

Developers will be required to assess the biodiversity status of sites by undertaking an ecological survey, and the outcomes, which can sometimes have a profound effect on developability and the development programme, should be used to influence the design of the residential development in order to conserve, enhance and create further opportunities for biodiversity.

Residential Development Guide (2013) (pages 60-62)

(NB: link to 2013 Guidance above as 2017 revised guidance, while approved at Council Executive, is awaiting the adoption of the new *Local Development Plan* in spring 2018 before being formally released as a material consideration for planning applications).

The RDG makes links to detailed biodiversity guidance that is also available from the council in a separate document entitled '*Planning for biodiversity action in West Lothian*'. The aim of this *Local Biodiversity Action Plan* (LBAP) is "to enhance and increase the mosaic of habitats and the key species of which they are composed to address their importance in the environmental, social and economic values of West Lothian". However, it is acknowledged this detailed second LBAP for West Lothian from 2005-09 is now out of date. However, the priority species and habitats it identified remain relevant.

Due to staff and budget resource issues, there are currently no plans to update this LBAP.

West Lothian Placed-based Green Networks (including Local biodiversity and geodiversity sites) (2017)

This guidance was out for public consultation in 2016 and finalised in 2017, but is awaiting the adoption of the new *Local Development Plan* in spring 2018 before being considered by the Council Executive for adoption. Section 9 outlines Local Biodiversity Sites, the process they undergo before designation within the local development plan, with a list of all the sites and their locality / grid reference and approximate area with a wider strategic map of West Lothian showing their general location.

Edinburgh and Lothians Forestry & Woodland Strategy

The purpose of the *Edinburgh and Lothians Forestry & Woodland Strategy 2012-17* (ELFWS) is to guide woodland expansion and management across the Lothians in a way that optimises its contribution to the region's people, economy and environment. It aims include expansion of the region's woodland resource and securing resilience to climate change as well as addressing biodiversity in the range and types of woodland planted and managed.

The ELFWS was developed by the Lothians and Fife Green Network Partnership (in which West Lothian Council is a partner) and covers the four Lothian local authorities' areas. The council uses the Strategy and its associated spatial data in responding to consultations on woodland creation proposals and in assessing development proposals that could affect woodland (e.g. wind farms). Various council services participated in the updating of the Action Plan in 2017 that will allow monitoring of the strategy to 2022.

Open Space Management

In relation to the council's management of parks, open space and cemeteries, NETs, Land and Countryside Services have, over the last few years, implemented the following regimes that benefit biodiversity:

- reduced maintenance frequencies including spraying herbicide in channels, on roads / pavements and around shrubberies (frequency reduced from three to two sprays per annum);
- reduced hedge cutting (from two cuts to one cut per annum - unless there is a specific health and safety concern);
- reduced grass cutting (from 14 cuts to 12 cuts per annum); and
- in churchyards and cemeteries wood / bark mulch, recycled from arisings from council tree operations are being used, instead of weed killer around headstones and other structures.

The council runs an annual garden competition across the county. It has a '*Wildlife Friendly*' category which encourages the public to garden in a more environmentally friendly way.

Through Open Space & Cemeteries team updating and open space improvement programmes, the council is improving the quality, condition and accessibility of West Lothian parks and play areas, including increasing biodiversity through wildflower meadows and reduced mowing, raising awareness of these facilities and encouraging community engagement through 'Place-making.' Improved paths, new signage, more varied and better urban habitats and community involvement will all encourage people to get closer to nature, and to make better use of their 'local' (within 500m) and 'neighbourhood' (within 1km) parks, for learning and health.

In addition, having these parks so close to people's homes will encourage people to walk/cycle to their local facility, with the associated health and environmental benefits, rather than travelling by car to facilities further afield.

Where possible improvement programmes will include improvement / increase in semi-natural areas which are good for wildlife itself and also enrich visitors' experience.

Planning, Economic Development & Regeneration

This is a key service which leads the delivery of the WL LBAP. It also delivers biodiversity conservation through, protection and designation of local sites.

SESPlan and the *Local Development Plan*

The *Strategic Development Plan* and *Local Development Plan* (LDP) include a range of planning policies to deliver biodiversity protection and enhancements. Locally important sites are protected through the Local Biodiversity Sites system within the LDP, together with two Local Nature Reserves (LNR) as outlined above. LDP policies also recognise the value and potential of biodiversity outside designated sites. The Plans aims to enhance, safeguard and avoid fragmentation of the wider green network.

Revised *West Lothian Open Space Strategy* (2020-25)

The new strategy will take a co-ordinated approach to protecting and improving West Lothian's network of open space, helping to deliver West Lothian's contribution to the development of the Central Scotland Green Network. The strategy is aligned with the *Local Development Plan* and co-ordinates with related strategies, including those for parks and gardens, allotments, play, sports facilities, active travel, climate change adaptation and biodiversity.

Key proposals in the draft are likely to include:

- country parks and trees and woodland;
- continuing to manage the parks to a good standard and preparing management plans and funding bids to improve them;
- creating a network of good quality green corridors, large and local parks;
- improving the value of existing greenspaces for people and wildlife; and
- supporting communities to establish allotments, community gardens and, orchards.

In-house and External Training

Training and advice are provided to council departments on a range of biodiversity topics. For example, training sessions on biodiversity related issues have been offered to Planning, Building Standards staff e.g. on rain gardens via CSGNT biodiversity officer and also SEPA Planning liaison officer and Forestry Commission Scotland on their 'right tree in the right place policy' and felling licences.

Council staff have attended SNH 'Sharing Good Practice' courses on a range of biodiversity related topics, while Planning & NETs & Land Services staff participated in an ecosystems approach to the Pentland Hills through a consultant's study funded by SNH in 2016/17 to prepare for the new *Regional Park Strategic Management Plan*. Knowledge gained from this project has also informed the council's revised urban park audit.

Individual staff members endeavour to advance their biodiversity knowledge and keep up to date with various aspects of habitat management through reading, attending seminars and sharing ideas with other local authorities and organisations.



NCR76, Abercorn

External Partnerships

Planning officers represent the council on external partnerships and groups which have a biodiversity remit, such as the Lothian and Fife Green Network Partnership, and also work closely with Central Scotland Green Network Trust on a wide range of woodland creation projects and other improvement projects. While Rangers are involved with CSGNT on the John Muir Way urban pollinator project and Operational Services with the River Forth Fishery Trust and their Almond / Avon River Life project.

Flood Risk Management

The council is also represented on the Forth Estuary Local Plan District. This group published the *Forth Estuary Local Flood Risk Management Plan* in 2016 which includes a number of prioritised and costed methods aimed at reduce flood risk in the most sustainable way, including natural flood management measures.

NETs, Land & Countryside Services

This is a key service in the delivery of biodiversity conservation through greenspace management and habitat creation projects. NETs, Land & Countryside Services are also involved with land management policies and implementing the Open Space and related strategies as well as extensive woodland management programmes within the country parks and the significant woodland holding across Livingston.



Tree and Woodland Management

The West Lothian Council - *Tree and Woodland Safety and Management Plan* was completed in 2017. This guides the management of council owned trees and woodland and reference is made to the importance of individual trees and woodland areas for biodiversity, in particular veteran trees and woodland of high biodiversity value, and the basis on which decisions regarding tree felling and other management are to be made.

Most of the council's woods will be managed for multiple benefits including recreation, visual amenity, shelter, pollution and noise abatement, income production and not least their biodiversity value.

Calderwood (part of Almondell & Calderwood Country Park) is the only woodland SSSI owned by WLC but is the largest remnant of ancient woodland in the Lothians. An Urban Woodland Management Plan (UWMP) was recently prepared by CSGNT and approved by Forestry Commission Scotland (FCS).

CSGNT have also completed an UWMP for the Long-established woods around Polkemmet Country Park and a further UWMP for the woods along the River Almond at Almondell, prepared in-house, is under review by FCS.

The council's largest area of woodland is at Beecraigs Country Park. This comprises mainly conifer woodland but much of it is being managed on extended rotations and has greater structural diversity and hence biodiversity value than many. A long-term forest plan for Beecraigs was completed and approved by FCS in 2014. This sets out the plan to restructure the 270ha forest and gradually to increase its species and structural diversity and through choice of species and management regime help the habitat become more resilient to climate change. The woodland management and the timber produced from Beecraigs are independently certified under the UK Woodland Assurance Scheme and Forestry Stewardship Council.

The majority of the woods planted over the last two decades are of predominantly native species many of them on reclaimed sites which are gradually being colonised by native ground flora and associated flora.

Work has commenced to start to prepare management plans for all the remaining significant woods owned by the council.

Other Habitat Management

The management of a number of other habitats has been improved at Beecraigs Country Park including:

Balvormie Meadow: neutral grassland area (scarce within West Lothian) stock fenced with new paths created to allow seasonal grazing by native breed cattle and sheep to conserve rich flora including Butterfly orchid. An initial survey was carried out by volunteer ecologists and Oatridge students And subsequent surveys carried out by Ranger Service have shown an increase in species diversity.

A simple Farm Conservation Plan for the 60ha Animal Attraction was prepared and approved by SGRPID which then allowed the council to apply for Agri-Environment and Climate Change grants for the following:

Top Meadow: unimproved grassland was fenced and the existing fairly diverse sward enriched with wildflower seeding. This is now being seasonally grazed by native breed cattle and sheep as above. A new path was created to form a key route within the Country Park passing this area. These meadow improvements will encourage snipe and woodcock nesting.

Hedge Management: a number of old hedges have been "laid" (i.e. thickened up and their species diversity improved) and others replanted.



Tree planting, Bathgate Hills

NETS, Land and Countryside: site management and community involvement

The service, through its Rangers and Open Space Officers and other staff, organises volunteer activities including practical conservation tasks and wildlife surveys. The volunteers include individuals offering to assist with particular projects and groups such as the Lothian Conservation Volunteers, The Conservation Volunteers, corporate groups and special interest groups such as Lothian Amphibian and Reptile Group, Lothian Badger Group and local bat surveyors. All these, together with the Friends groups below, make a significant contribution to the monitoring of species and habitats and assisting with habitat improvement, providing approximately the following volunteer time:

Year	Volunteer days	Volunteer hours
2015	84	308
2016	46	863
2017	40	800

which was spent on biodiversity activities:

- tree planting at Little Boghead and Beecraigs
- wildflower planting at Little Boghead
- scrub removal at Easter inch Moss and Blackmoss
- damming work at Blackmoss
- removing Himalayan Balsam at Almondell.
- removing New Zealand Pygmy weed from Balvormie pond
- rhododendron control at Polkemmet
- woodland management at Oakbank and Ravencraig
- rosebay willow herb control at Beecraigs and Polkemmet
- hedge laying at Beecraigs (that will allow a greater number of birds)
- badger sett surveys at Beecraigs
- bride wort control at Polkemmet

These activities were carried out by various groups including

- Lothian Conservation Volunteers,
- The Conservation Volunteers,
- Butterfly Conservation Bog Squad,
- Friends of Little Boghead and Friends of Almondell,
- WLC Volunteer Ranger Service,
- Cub and Scout groups and individual volunteers.



Pentland Hills Woodland expansion

While there were four phases of woodland creation around Harperigg Reservoir reported in the earlier biodiversity report, there has been another phase of woodland creation in the Pentland foothills that forms part of this important green network. Further woodland creation is under design and should be implemented in the coming years in this area.

Friends of Parks

West Lothian has a network of Friends of Parks groups, supported by NETs Land & Countryside staff. These groups are made up of volunteers who work closely with the council and play a key role in enhancing and protecting local parks, woodlands and green spaces.

Biodiversity improvement projects with which various Friends groups have assisted over the last few years include:

- Friends of Little Boghead, Bathgate – site management of this semi-natural woodland and wetland area adjacent to a recent housing development, including tree and wildflower planting litter clearance and removing vegetation from the ponds. The Friends also made a successful application to Tesco Bags of help which has funded new signage, seating and educational visits for schools.
- Friends of Almondell & Calderwood – creation of a new wildlife pond within the garden, plans for a butterfly bank, cutting back invasive species including *Rhododendron ponticum*, commencement of Calderwood Fen SSSI management agreed with SNH in 2017.
- Dedridge Environmental Project (DEEP) – have engaged consultants to prepare an Urban Woodland Management Plan. The area is being transferred back to the council.
- Murieston Environment Group – clear overgrown paths and undertake minor maintenance repairs.
- Polkemmet Environment Group – are a fledgling group of approximately 12 individuals and growing. Looking to arrange a number of community events initially to get the community on board and using the park.



Allotments

Implementation of the *Allotments Strategy* by NETs, Land & Countryside Services staff supported a local group in the creation of a new allotment site on council land at Killandean Burn Greenway. An extension to the allotment site has been allocated in the *Local Development Plan*. Support has also been given to the Polbeth & West Calder Community Garden and Fauldhouse Community Development Trust who have a desire to establish a community growing area at Falahill in the village as well as Murieston Community Council for a community growing space on the Murieston Greenway in Livingston.

Urban Pollinators

To support pollinators in West Lothian urban parks, trial wildflower meadows are being established in larger parks, as well as allowing some grassy areas to grow longer, where there is an indication that there may be some noteworthy flora amongst the grasses.

Livingston South Blue / Green Network

The council worked together with three local environment groups and Central Scotland Green Network Trust (CSGNT) in Livingston South using both capital and external funding from the CSGNT Development Fund and the Avondale Environmental and West Lothian Council through the Landfill Communities Fund to restore Cambridge Park Pond, reduce the risk of flooding and improve water quality on the Dedridge Burn through the construction of a new wetland, improving the condition of footpaths and trails, replacing essential street furniture including park benches and litter bins and reconnecting fragmented habitats through extensive new tree and shrub planting at Bankton Mains Park.

Livingston North Blue / Green Network

A further £20k grant was secured from CSGNT in 2017 to undertake a survey of five burn corridors in the north part of the town and prepare a master plan for improvements, when further external grant funding can be raised, as well as scope for community volunteer projects along the green network. Community consultation is planned for early 2018.



Linlithgow Loch and catchment

A Loch summit, chaired by Historic Environment Scotland was held in November 2015 among all the major interested parties in the loch.

- West Lothian Council (Flood Risk, Planning, Environmental Health Services);
- Scottish Environment Protection Agency (Ecologist / Area Officer);
- Historic Environment Scotland (Area Manager / Rangers);
- Scottish Natural Heritage;
- Scottish Water;
- Forth Area Federation of Anglers;
- The Natural Environment Research Council(NERC) Centre for Ecology & Hydrology;
- Scottish Agricultural College and
- Linlithgow & Linlithgow Bridge Community Council and Civic Trust.

A Strategic Management Group was established and four other more ad-hoc working groups e.g.; involving Lochside projects. The UK & Ireland Lake Network annual conference was held in Linlithgow in April 2017 and various aspects of the loch were debated.

A major nutrient source apportionment study got underway in 2017 and is due to report in 2018 with the results being available in 2019.

River Almond, Livingston

Work has taken place to address severe erosion on stretches of the River Almond as it flows through Livingston using natural boulders rather than traditional civil engineering techniques. In addition to halting erosion, the boulders provide improved habitat and allow vegetation to establish behind and between, helping to improve both geomorphology and biodiversity.

Dedridge Environment Ecology Project

West Lothian Council have continued to work with the group of local people behind Dedridge Environment Ecology Project (DEEP) to deliver environmental improvements to the woodland, ponds and watercourse comprising the Dedridge Burn corridor in the reach between the A71 upstream to the confluence with the River Almond downstream. The work, which has taken ten years overall, includes measures to reduce the risk of flooding, the restoration of three ponds, woodland management, a park upgrade, the improvement of footpaths, creation of pond-dipping platforms and public artworks, engagement and interpretation and the generally improving the quality of public greenspace.

Invasive Non-Native Plant Species

The council has supported the Forth Invasive Non Native Species Programme (FINS) pioneered by River Forth Fisheries Trust to help in their aim of 'Conserving, Protecting and Enhancing the Rivers'. The programme seeks to prevent, monitor and control the introduction, spread and extent of Invasive Non-Native plant Species in a sustainable manner on a catchment-wide scale across the catchment of the River Forth and its tributaries. The programme has primarily targeted the control of Japanese knotweed, Himalayan balsam and giant hogweed on tributaries of the Rivers Almond and Avon.

Examples of Individual Projects across West Lothian

Many community parks and greenspace projects which support biodiversity conservation are delivered across West Lothian, supported by NETs, Land & Countryside Services staff. Some examples are:

- Almondvale Park, Livingston comprehensive upgrading with several large areas of wild flowers planted and adjacent woodlands, along the greenway, managed;
- Livingston South Blue / Green Network - CSGNT helped lever in substantial grant funding for works along several riparian corridors;
- Livingston North Blue / Green Network – again with the help of a CSGN grant an audit has been undertaken and a feasibility plan drawn up for improvements that can also be implemented by community volunteers;
- Bulb planting in naturalised grass areas across localities;
- Annual and perennial meadows across various sites in West Lothian;
- Community clean ups in new woodlands and along watercourses; and
- Tree planting – trees planted as an extension to Tile Wood, Beecraigs to celebration 40 years of West Lothian being twinned with the Hochsauerland in Germany.

4 Partnership working and biodiversity communications

Partnership working

The council has a Service Level Agreement with The Wildlife Information Centre to access wildlife data to support decision making.

Council officers also work in partnership with a wide range of statutory and other agencies as well as environmental charities and trusts on projects aimed at improving the environment and enhancing biodiversity:

- Scottish Natural Heritage
- Forestry Commission Scotland
- Historic Environment Scotland
- Central Scotland Green Network Partnership
- Central Scotland Green Network Trust
- Lothian and Fife Green Network Partnership
- River Forth Fisheries Trust
- Scottish Environment Protection Agency
- Scottish Water
- Scottish Canals
- City of Edinburgh Council
- Edinburgh University
- Sustrans
- Lothian and Borders Geo-Conservation Group
- Amphibian Reptile Conservation Trust
- Greenspace Scotland
- Keep Scotland Beautiful
- Various other Ranger Services
- Woodland Trust Scotland
- Buglife Scotland (mud snails translocation project)
- Learning through Landscapes
- Scottish Wildlife Trust

Central Scotland Green Network Trust

The council was a signatory of a concordat with the Central Scotland Green Network Trust in December 2012 and an updated concordat in 2016. Green Networks promoted through the Main Issues Report and emerging Local Development Plan (LDP) will increase resilience to climate change of the natural and built environment, including the expansion of woodland planting which will also enhance biodiversity and create more attractive, healthier places to live.

West Lothian sites - physical outputs and funding in 2015/16 involving CSGNT:

WLC outputs for 15/16 fiscal year

SITE	Ownership	PHYSICAL OUTPUTS							FUNDING		
		New woodland planted (ha)	Woodland bought under management (ha)	New paths/ Path upgraded (m)	Greenspace upgraded (ha)	Woodland maintained (ha)	Greenspace maintained (ha)	Path routes maintained (m)	WLC funding (£)	Other funding (£)	Total funding (£)
Cairns Farm	Private	2.9								XX	XX
Dalmahoy Farm	Private	16.87								XX	XX
Lanthorn Park	WLC					1.5				252,585	252,585
Total		19.77	0	0	0	1.5	0	0		252,585	252,585
Expressed as percentage of total value (excluding private Clients where WLC did not contribute to funding package)									0.0%	100%	100%

West Lothian sites - physical outputs and funding in 2016/17 involving CSGNT:

WLC outputs for 16/17 fiscal year

SITE	Ownership	PHYSICAL OUTPUTS								FUNDING			
		New woodland planted (ha)	Woodland bought under management (ha)	New paths/ Path upgraded (m)	Greenspace created (ha)	Greenspace upgraded (ha)	Woodland maintained (ha)	Greenspace maintained (ha)	Path routes	WLC funding (£)	Other funding (£)	Other funding as % of project funding	Total funding (£)
Sommers Park, Raw Strip & Lizzie Brice's Strip	WLC		7.55	562		0.95	7.55	0.95	562	38,000	31,506.08	45.3%	69,506
Knowes Colliery Ph2	WLC						17.5		1175	39,043	63,146	61.8%	102,189
Total		0	7.55	562	0	0.95	25.05	0.95	1737	77,043	94,652.33		

The tables above indicate the outline figures for West Lothian woodlands created and managed, as well as paths established, along with grants secured by CSFT / CSGNT in 2015/16 and 2016/17. For example, in 2015/16 approximately £252k was levered out by CSGNT from external grants and other sources for green space work at Lanthorn Park, Dedridge. Similarly, in 2016/17, for a WLC investment of £74k, additional funds derived for West Lothian were in the order of £94k, involving 25ha of woodland maintained; 562m paths (new or upgraded); 0.95ha of greenspace improved; and 1,737m paths maintained.

River Forth Fisheries Trust and the Scottish Environment Protection Agency (SEPA)

Since the last report, the council has been working together with registered charity, the River Forth Fisheries Trust, Scottish Government and the Scottish Environment Protection Agency on a suite of projects under River Life: Almond & Avon, a four-year initiative to deliver physical improvements to these two rivers and their tributaries. The project is funded jointly by the council, Scottish Government's Water Environment Fund (WEF) and a £1.67m grant to the Trust from the Heritage Lottery Fund. At the time of writing, the first barrier located on the Almond at the Almond Valley Heritage Centre, Kirkton, Livingston has just been completed allowing the passage of fish to the upper reaches of the river.

The council also continues to work with Historic Environment Scotland (HES), the Centre for Ecology & Hydrology (CEH), the Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH) and a number of other stakeholders to deliver improvements aimed at reducing nutrient inputs into Linlithgow Loch from the surrounding catchment and addressing the high-level of residual nutrient within the water body.

To date, Drainmarkers® have been attached, with the help of local people, to road gullies throughout the loch catchment and flyers have been delivered to every home in the catchment raising awareness of the plight of the loch and encourage people to ensure that only rain goes down the drain. Inter-agency work has also started to take samples of water from drains and watercourses entering the loch to inform a nutrient apportionment study aimed at prioritising future investment in measures that will improve quality of water entering the loch.

Communication and engagement

Awareness-raising, communication and engagement are a key element of biodiversity work within West Lothian. The council has undertaken a range of work to promote biodiversity, including:

- Publication of web-based information and use of social media; to raise awareness of biodiversity work carried out by Parks & Woodland
- Use of e-newsletters to promote projects and events;
- Co-ordination of 'Friends of Parks' programme and support for community projects within parks;
- A programme run by The Ranger Service of annual events, conservation tasks and wildlife surveys including "Wild Wednesdays" and summer programmes for school children during the holiday period;
- Adoption of the Supplementary Planning Guidance in Spring 2015 for *Planning & Nature: Development Management & Wildlife* that contains guidance and information related to protected species, for internal and external use by Development Management staff, developers and their architects.



5 Biodiversity highlights and challenges

Biodiversity highlights

The report above demonstrates the breadth of activities delivered by the council which help to protect and increase West Lothian's biodiversity. Particular strengths in West Lothian are the high level of community involvement in greenspace projects, and the extent of partnership working both within and out with the council.

Specific initiatives that are highlights of biodiversity delivery from the last three years are:

- Adoption of the Supplementary Planning Guidance for *Planning & Nature: Development Management & Wildlife* in Spring 2015;
- Securing funding for peatland restoration at Easter Inch Moss LNR and also Black Moss Armadale;
- Adoption of a *Geodiversity Action Plan* that contains over 50 actions;
- Multiple examples of local community greenspace projects; e.g. securing Tesco Bags of Help funding for pond project at Little Boghead, Bathgate and a West Lothian Land Trust grant for "gazing meadows" project at Balvormie; also to restore the Frog Pond and Almond Park ponds in Livingston;
- Investment of £1.2m in Almondvale Park at the heart of Livingston in 2016/17 (50% funding from Sustrans); and
- The start of on-site work to deliver physical improvements to the water environment of the River Almond.

Challenges

For West Lothian, the main challenges in the next three years will be the continued pressure on council resources across all services in relation to capital and revenue budgets, yet with increased public expectations around biodiversity action but also any changes to the regulatory framework currently in place for the natural environment, arising from Brexit negotiations. Some of the measures associated with reduced cyclic maintenance may also represent an opportunity to enhance biodiversity.

6 Monitoring

The status of biodiversity, and activity on biodiversity conservation, in West Lothian is monitored through:

- The Environmental Quality Indicators report;
- Occasional reports on Nature Conservation produced by the NETs, Land & Countryside Service; and
- A programme of species monitoring and survey work is carried out by Council Rangers, volunteers and partners to provide the baseline data to The Wildlife Information Centre (TWIC). This includes regular surveying such as Badger, Greater Butterfly Orchid, grassland and Bats, as part of national monitoring programmes, and surveys to support the production of species atlases, as well as site-based monitoring. This data is managed by TWIC and from there passed to the NBN Gateway.

7 Contribution to national targets

Targets/key steps from Chapter 1 (Healthy ecosystems) of the “2020 Challenge for Scotland’s Biodiversity”		Contribution to key step?	Justification
1.1	Encourage and support ecosystem restoration and management, especially in catchments that have experienced the greatest degradation	Yes	Through the West Lothian Biodiversity Action Plan (albeit somewhat dated) Support for RFFT Almond /Avon River Life Project opening up fish passage on River Almond by removing major weir barriers and improving riverbank habitats along Killandean Burn and further developing projects on the Bog Burn, Bathgate and Lochshot Burn, Livingston. Blue / Green Network projects in South and North Livingston.
1.2	Use assessments of ecosystem health at a catchment level to determine what needs to be done	Yes	Part-take in ecosystems approach study for preparation for Pentland Hills Strategic Management Plan.
1.3	Government and public bodies, including SNH, SEPA and FCS, will work together towards a shared agenda for action to restore ecosystem health at a catchment-scale across Scotland	Yes	As project opportunities arise, e.g. as part of landscape scale woodland creation in Pentland Hills Regional Park c Harperigg Reservoir.
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	Yes	Through the West Lothian Local Biodiversity Action Plan, the Local Development Plan and TWIC system for designating Local Biodiversity Sites. Open space strategy and associated plans for management of WLC’s own land.

Targets/key steps from Chapter 3 (Biodiversity, health and quality of life) of the “2020 Challenge for Scotland’s Biodiversity”		Contribution to key step?	Justification
3.1	Provide opportunities for everyone to experience and enjoy nature regularly, with a particular focus on disadvantaged groups	Yes	Wide range of work such as supporting Friends of parks groups, food growing projects, outdoor learning for schools, community engagement with Local Nature Reserves and projects such as “Green Gym” at Howden Walled Garden, Livingston, working with disadvantaged and special needs people on nature conservation practical projects, particularly within the three Country Parks.
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	Supporting Friends of Groups to enhance their local parks; e.g. Little Boghead Village Nature Park, Bathgate. Providing biodiversity guidance and audits for improvements to greenspaces.
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	Health walks groups established and use local greenspaces on a regular basis e.g.; health walks in parks (Bankton Mains, Lanthorn South, Almondvale Park) – path upgrades and signage encourage people to walk - routes designed so people can progress and increase their activity levels. Potential project identified via Livingston North / Blue Green Network feasibility study to work between Howden Park and NHS Lothian estate at St John’s Hospital.
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	Yes	Active eco-schools project, supporting teachers through CPD. Integrating biodiversity into design of new school grounds e.g. Learning through Local Greenspace and Rangers working with a number of schools to provide areas suitable for Forest school type activities in woods / other greenspace close to the school. Outdoor pursuit’s team, now part of West Lothian Leisure, also facilitate outdoor learning.
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	No	

Targets/key steps from Chapter 4 (Wildlife, habitats and protected places) of the "2020 Challenge for Scotland's Biodiversity"		Contribution to key step?	Justification
4.1	Ensure that the management of protected places for nature also provides wider public benefits	Yes	The process of creation and management of Local Biodiversity Sites includes an analysis of wider public benefits such as access for education and recreation. Woodland management plan for Calderwood SSSI includes path improvements so that the site can continue to be enjoyed by the public.
4.3	Integrate protected areas policy with action for wider habitats to combat fragmentation and restore key habitats	Yes	Local Development Plan (2015) policy takes a habitat network approach to ensure fragmentation is minimised.
4.5	Involve many more people than at present in this work and improve understanding of the poorly known elements of nature	Yes	Community engagement and encouraging wildlife recording through Ranger Service programme of events, "Wild Wednesdays" and support for Friends of Groups. Consultation events for woodland management plans or other new projects e.g. meadow management are used as opportunities to inform the wider public about the biodiversity issues which are being considered.

Targets/key steps from Chapter 5 (Land and freshwater management) of the "2020 Challenge for Scotland's Biodiversity"		Contribution to key step?	Justification
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	Partially	West Lothian Local Development Plan (2015) identifies Local Biodiversity Sites. Management of Local Nature Reserves. Operational Services / NETs colleagues given initial training on integrating biodiversity into their parks and greenspaces maintenance through audits, advice.
5.2	Ensure that measures taken forward under the Common Agricultural Policy (CAP) encourage land managers to develop and retain the diversity of wildlife habitats and landscape features	No	
5.3	Support 'High Nature Value' farming and forestry	Partially	WLC beginning to adopt Less intensive Silvicultural Systems at Beecraigs and has hosted visits. Also undertaking conservation on two areas of the Animal Attraction which are visited by students.
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	LDP Policies support SSSI and SPA protection. Land management on Council estate and through our contribution to the River Basin Management Planning process led by SEPA

Targets/key steps from Chapter 5 (Land and freshwater management) of the "2020 Challenge for Scotland's Biodiversity"		Contribution to key step?	Justification
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	Broxburn Flood Prevention Scheme had an element of utilising widened and incised channels and for introducing tree planting in the upper catchment to help reduce runoff and ensure protected species at Drumshoreland, by Pumpherston were considered through design & construction stages of the new distributor road and social housing development and follow up work with ARC Trust and SNH.
5.6	Restore and extend natural habitats as a means of building reserves of carbon and to help mitigate climate change	Partially	While incorporated in Planning policy, will be addressed to a greater degree in forthcoming WL Adaptation Action Plan. Conservation and restoration of raised bogs will help reduce the release of carbon from peat reserves; e.g. on WLC land at Easter Inch and Black Moss Peatland projects. Choice of species for restocking woodland areas takes into account Forest Research's Ecological Site Classification predictions for future suitable species and the known diseases currently affecting trees in the UK.
5.7	Provide clear advice to land and water managers on best practice	Yes	Advising colleagues in Roads & Transportation on managing drains for Great Crested Newts at Drumshoreland using good practice from ARC-Trust Environmental factors included in risk assessments and method statements for tree and woodland and path construction work.

Targets/key steps from Chapter 6 (Marine and coastal) of the "2020 Challenge for Scotland's Biodiversity"		Contribution to key step?	Justification
6.4	Achieve good environmental status for Scottish seas	No	Very small proportion of Forth estuarial coastline in West Lothian.

