

Glasgow City Council

Biodiversity Duty Report

(2011/12, 2012/2013 and 2013/14)



Contents

Introduction	2
Glasgow City Council and Biodiversity	2
Action for Biodiversity	3
Mainstreaming	4
Monitoring and Surveys	5
Partnership Working and Biodiversity Communications	6
People and Awareness	7
Building Capacity	8
Biodiversity Highlights of the Past Year	8
The Way Forward	8
Appendix (i) Biodiversity Monitoring Report (2011/12)	10
Appendix (ii) Biodiversity Monitoring Report (2012/13)	14
Appendix (iii) Biodiversity Monitoring Report (2013/14)	19
Appendix (iv) Biodiversity Duty Report DRS	28
Appendix (v) Biodiversity Duty Report Glasgow Life	34
Appendix (vi) Biodiversity Duty Report City Building	36
Appendix (vii) Biodiversity Duty Report Education Services	39

1. Introduction

- 1.1 The Nature Conservation (Scotland) Act (2004) created a duty on public bodies, including Glasgow City Council, to “further the conservation of biodiversity as far as is consistent with the proper exercise of those functions.” In so doing, public bodies must take regard of the *Scottish Biodiversity Strategy*.
- 1.2 The Wildlife and Natural Environment (Scotland) Act 2011 (WANE Act) amends the Nature Conservation (Scotland) Act (2004) and places an additional obligation on public bodies to report on compliance with the Biodiversity Duty every three years. The first report is due by January 2015.
- 1.3 The designated *Scottish Biodiversity Strategy* is ‘*Scotland’s Biodiversity: It’s in Your Hands (2004)*’ which sets out a vision for 2030 for the health of Scotland’s biodiversity. This has now been supplemented by the ‘*2020 Challenge for Scotland’s Biodiversity*’ which focuses on desired outcomes for 2020.
- 1.4 The two documents together are now designated by the Scottish Government as comprising the *Scottish Biodiversity Strategy*.
- 1.5 Glasgow City Council (GCC) carries out its Biodiversity Duty primarily through the implementation of the ‘*Glasgow’s Local Biodiversity Action Plan*’ and by helping achieve the national objectives and outcomes of the *Scottish Biodiversity Strategy* through local action.
- 1.6 There are 7 Core Council Services: Chief Executive’s Office, Corporate Services, Development and Regeneration Services, Land and Environmental Services, Education Services, Financial Services and Social Work Services as well as 10 Arms Length External Organisations (ALEOs). These are ACCESS, City Building, City Parking, City Property, Clyde Gateway, Cordia, Glasgow City Marketing Bureau, Glasgow Community and Safety Services, Glasgow Life and Jobs and Business Glasgow. The core Services and ALEOs were consulted for this current report.
- 1.7 As required by the legislation, this report covers the three years April 2011- March 2012, April 2012- March 2013 and April 2013- March 2014 (see Appendices).

2. Glasgow City Council and Biodiversity

- 2.1 Glasgow City Council delivers its key biodiversity responsibilities and project implementation through its Natural Environment officers within the Land and Environmental Services (LES); these are Biodiversity/Ecology Officers, Countryside Rangers, Arboriculture and Woodland Officers and Horticulture Officer.
- 2.2 The Council is the lead organisation, and chair of, the Glasgow Local Biodiversity Action Plan which involves 20 partner organisations in carrying out projects and actions to conserve and enhance the City’s biodiversity.
<https://www.glasgow.gov.uk/index.aspx?articleid=6054>
- 2.3 A Council-wide Natural Environment Framework is being prepared, by Glasgow’s Development and Regeneration Service (DRS), within which Glasgow’s Local

Biodiversity Action Plan (LBAP) will sit and which will detail the main aims and objectives for Glasgow's biodiversity over the next five year period.

2.4 Glasgow City Council has recently signed a concordat with the Central Scotland Green Network. The Council is a signatory to the Climate Change Declaration and the 2012 Scotland Geodiversity Charter.

2.5 Protecting biodiversity is a key action within the Council's Climate Change Strategy.

3. Action for biodiversity conservation on the ground (2011/12, 2012/13 and 2013/14)

3.1 This is a summary of key practical actions carried out for biodiversity. For more detail and a comprehensive list of actions, please see Appendices.

City-wide

- Three new Local Nature Reserves (LNRs) were designated in 2012/13 (Linn Park, Cathkin Braes and Dams to Darnley) bringing the total number of LNRs in the city to 10. Glasgow now has 0.84 ha of LNR per 1,000 population.
- The Seven Lochs Wetland Park Master Plan was finalised in 2013/14. The Project aims to maximise wetland habitats and their potential multiple benefits.
- The GCC-DRS Stalled Spaces project has provided 63 temporary biodiversity benefits throughout the city in this reporting period.

Grasslands

- Meadow management was carried out annually on over 25 ha of land, including parks and green spaces across the city.
- Over 14,000 wildflowers were planted in 2013/14 by volunteers and local community groups as part of the Landfill Communities Fund (LCF) funded partnership projects Glasgow's Buzzing (GCC LES and Buglife) and The Habitat Restoration Project (The Conservation Volunteers (TCV) and LES).

Wetlands

- Raised bog restoration works at Commonhead Moss LNR (Green Stimulus grant funding in partnership with Scottish Natural Heritage (SNH) and GCC-LES) included installation of 20 plastic piling dams, the removal and treatment of nearly 8 ha of scrub and the felling of mature birch woodland was carried out in 2013/14.
- The Glasgow Living Waters (Phase 2) Project (GCC-LES and Froglife) created over 30 new ponds over the 3 years of the reporting period. <http://www.froglife.org/> .
- Pond naturalisation projects were carried out at Hogganfield Park LNR and Victoria Park.

Woodlands

- Dawsholm Park Woodlands in and Around Towns (WIAT) grant-aided works delivered 17 ha of *Rhododendron ponticum* control and 15 ha detailed woodland surveying in 2012/13
- Linn Park WIAT woodland improvements included 6 Ha *Rhododendron ponticum* control, 7,000 new woodland trees, 1,260 ground flora, 117 m hedgerow planting and 9 Ha woodland thinning and restructuring in 2012/13.
- LES's strategic planting programme, using heavy standard stock, annually plants approximately 250 trees.

Farmland

- Over 80 ha of farmland at Carmunnock, Pedmyre and Windlaw were positively managed annually for biodiversity.

Species Management

- Funding was secured from GCC Sustainability Innovation Fund for a Masters (by research) student to study Glasgow's unique fossorial Water Voles, which is currently ongoing.
- The Council's wildflower nursery at Daldowie/Bellahouston was maintained as a source of local provenance native species seedlings.
- The Council undertakes an annual invasive plant species control programme targeting Japanese Knotweed, Giant Hogweed and Himalayan Balsam at 121 sites across the City.

Volunteers' Practical Actions

- GCC Countryside Ranger Service engaged with volunteers over 1,700 hours in 2012/13 and 2,552 hours in 2013/14.
- The TCV Habitat Restoration Project has involved a large number of volunteers in practical habitat management at some of Glasgow's key sites, Local Nature Reserves, parks and Sites of Importance for Nature Conservation (SINCs), with work co-ordinated by GCC-LES staff.
- In 2013-2014 TCV provided 50 grant funded volunteer team days – 1,755 volunteer hours were carried out at 25 sites.
- In 2012-2013 TCV provided 78 grant funded volunteer team days – 2,340 volunteer hours were carried out at 20 sites.
- The Forestry Commission Scotland (FCS) Skills & Employability Programme, the Wisegroup delivered 550 training days for woodland improvements (2012-2013).
- Seven Lochs Wetland Park volunteers carried out 425 volunteer hours (2012-2013).

4. Mainstreaming

- 4.1 The proposed Natural Environment Framework (NEF) will clearly set out all the areas of GCC policies, strategies and initiatives with relevance for biodiversity, how these can work together and partnership arrangements. As well as biodiversity, the NEF aims to incorporate other related environmental issues including geodiversity and landscape.
- 4.2 The Glasgow Climate Change Strategy and Action Plan includes biodiversity as a consideration and makes reference to the Local Biodiversity Action Plan.
<http://www.glasgow.gov.uk/index.aspx?articleid=4902>
- 4.3 Glasgow City Plan 2 has robust policies to conserve, protect and enhance biodiversity. These are ENV 6 Biodiversity; ENV 7 National, Regional and Local Environmental Designations; and ENV 8 Trees, Woodlands and Hedgerows.
<https://www.glasgow.gov.uk/index.aspx?articleid=2910>
- 4.4 Biodiversity benefits are integrated into the Metropolitan Glasgow Strategic Drainage Plan through the delivery of Sustainable Urban Drainage Systems (SUDS), green infrastructure and blue-green networks.
<http://www.mgsdp.org/index.aspx?articleid=1967>

- 4.5 The quality standard ‘Green Flag’ award-winning parks (Keep Scotland Beautiful and other partners) in Glasgow – Pollok Country Park, Glasgow Botanic Gardens, Glasgow Green, Bellahouston Park, Kelvingrove Park and Queen’s Park and two LNR’s at Hogganfield Park and Linn Park, all include some biodiversity elements.
<http://www.glasgow.gov.uk/index.aspx?articleid=3540>
- 4.5 Green Gyms (a partnership between Glasgow Life and TCV with support from GCC) operated at three sites, Robroyston Park LNR, Provan Hall and Carmyle with volunteers carrying out habitat management for biodiversity while improving their physical and mental health.
<http://www.glasgowcpp.org.uk/index.aspx?articleid=10146>
- 4.6 Biodiversity has been mainstreamed into Council action through the inclusion of Local Nature Reserves targets in the Single Outcome Agreement. The target for 2012/2013 of 0.75ha of LNR per 1000 population was exceeded as 0.84 ha per 1000 population was achieved.
- 4.7 City Building incorporated biodiversity within Environmental Management training course and within Environmental Awareness course for apprentices in 2012, 2013 and 2014.
- 4.8 City Building appointed biodiversity champions as part of British Research Establishment Environmental Assessment Method (BREEAM) assessments for registered sites.
- 4.9 Glasgow i-trees project accepted as a Strategies Towards Energy Performance and Urban Planning (Step Up) pipeline project in 2013.

5. Monitoring and Surveys

- 5.1 Biological records are maintained and enhanced by Glasgow Life through the Glasgow Museums Biological Records Centre – 14,020 additional records added 2011-14. Data gathered from monitoring and surveys is regularly entered into the database and all records are collated and sent to the National Biodiversity Network (NBN).
<http://www.glasgowlife.org.uk/museums/about-glasgow-museums/projects/Wild%20About%20Glasgow/Pages/default.aspx>
- Water fowl monitoring is carried out annually at 15 water bodies as part of the national Wetland Birds Survey by the British Trust for Ornithology (BTO).
 - Common Frog population monitoring is carried out annually at 15 sites city-wide by GCC-LES staff.
 - Froglife carried out a variety of amphibian, aquatic invertebrate and aquatic vegetation surveys as part of the Glasgow’s Living Waters Project.
 - Annual monitoring of key LBAP species is carried out – Bog Rosemary, Green Hairstreak, Small Pearl-bordered Fritillary.
 - Butterfly Transects and surveys are carried out annually at a number of sites.
 - Buglife carried out invertebrate monitoring of wildflower meadows as part of Glasgow’s Buzzing.

- Water Vole surveys have been carried out at Robroyston Park LNR and a variety of East End sites.
 - Surveys of Badgers and Otters are carried out as required.
- 5.2 The Biological Audit for the city was updated (funded by DRS and Glasgow Life) in 2013 to assist with the development of the NEF.
- 5.3 Commenced in 2012, the survey of the Council's trees continues with the findings and recommendations managed through GCC-LES's electronic tree asset management system.

6. Partnership working and Biodiversity Communications

- 6.1 The Local Biodiversity Action Plan involves the Council working with 19 other organisations to implement the aims and objectives of the Plan. Partners include Scottish Natural Heritage, Forestry Commission (Scotland) and the Royal Society for the Protection of Birds (RSPB) Scotland.
<https://www.glasgow.gov.uk/index.aspx?articleid=6054>
- 6.2 The Natural Environment Officers (Biodiversity/Ecology) attend National Biodiversity Network meetings in spring and autumn.
- 6.3 The Seven Lochs Wetland Park project aims to create Scotland's largest urban nature park for people, nature and heritage. This ambitious project will bring together 20 square metres of lochs, parks, nature reserves and woodlands. It is a partnership between the Glasgow and Clyde Valley Green Network Partnership, Glasgow City Council, North Lanarkshire Council, Forestry Commission Scotland, Scottish Natural Heritage, The Conservation Volunteers and others. The project was recently awarded a stage one pass for a grant allocation to the Heritage Lottery Fund.
<http://www.sevenlochs.org/>
- 6.4 The Glasgow Living Waters Project has been a partnership between Glasgow City Council and Froglife over the last three years. The project delivered on new pond creation, biodiversity enhancement of existing ponds, amphibian, aquatic invertebrate and aquatic vegetation surveys, training days on amphibian identification and ecology, advice to communities and raising awareness of amphibians.
<http://www.froglife.org/what-we-do/improving-habitats/living-waters/>
- 6.5 The TCV Habitat Restoration Project has been a partnership between Glasgow City Council and TCV over the last three years. It has involved a large number of volunteer hours in improving the city's biodiversity habitats in a variety of sites city-wide.
http://www2.tcv.org.uk/display/btcv_scotland
- 6.6 The Glasgow's Buzzing Project has been a partnership between Glasgow City Council and Buglife over the last three years. It has involved creating and enhancing wildflower meadows across the city, carrying out invertebrate surveys and raising community awareness of biodiversity.
<https://www.buglife.org.uk/campaigns-and-our-work/habitat-projects/glasgows-buzzing>

- 6.7 In total, the GCC Countryside Rangers delivered the biodiversity message to 13,438 members of the public in 2013. This included 5,850 school children at education events and 7,588 at guided walks, local nature reserve days, to Community Gala days, the Glasgow Show and Pollok Family Day.
- 6.8 i-Tree eco and i-Tree hydro draft GCC reports have been developed for GCC, as part of a partnership project with GCC-LES, FCS, Forest Research and GCC-DRS. This provides an assessment of the impact of trees on a range of ecosystem services.
- 6.9 GCC-DRS, Glasgow Life and Scottish Badgers signed a data sharing agreement in 2012 to assist with the planning process and to ensure protected species statutory obligations are met.
- 7.0 Education Services work with a number of partner organisations, including a range of nature conservation charities and the Countryside Ranger Service, to promote biodiversity activities.

7. People and Awareness

- 7.1 This is a summary of key events and activities carried out to promote Glasgow's biodiversity. For more detail and a comprehensive list of all actions, please see Appendices attached.
- GCC and Glasgow Life supported the 'Year of Natural Scotland'
 - The 'Simple Pleasures Easily Found' campaign (SNH) was promoted at Glasgow sites and nine self guided walks/leaflets were developed. There was a leaflet and east end project launch at Robroyston Park LNR in 2011.
 - LNR Celebration events were held at three LNRs each year for the last three years, which involved GCC and partner organisations providing information and activities to promote biodiversity to local communities which was part funded by Community Service Volunteers (CSV) Action Earth.
 - Wild About Glasgow Countryside Events programme runs annually with over 100 free events provided by GCC Countryside Rangers to engage the public in environmental and biodiversity activities.
 - A TCV Natural Communities trainee was placed with GCC in 2013 and undertook biodiversity and community involvement projects including 'Wild for Art' working with teenagers in an East End youth club and the 'John Muir Discovery Award' in partnership with the Children's Inclusion Partnership.
 - 'Aliens, Natives and Re-introductions' Conference was held at University of Glasgow in 2013, supported by partners including GCC.
 - The Seven Lochs Wetland Park Project Manager and Community Engagement Officer have been appointed.
 - Glasgow Life promote awareness of biodiversity through displays and talks at Kelvingrove Museum and in conjunction with RSPB Scotland, undertake a range of environmental education activities.
 - The city's strategy for taking learning outdoors, 'Outside Now!' was launched in August 2012 at Bellahouston Academy.
<http://www.glasgow.gov.uk/index.aspx?articleid=10967>

- Education Services through ‘Eco Schools’ programme, promote and encourage schools to engage with Biodiversity element and link to the Curriculum for Excellence (CfE).

8. Building Capacity

GCC’s biodiversity process currently builds capacity with partnership projects and training opportunities through key projects such as the Habitat Restoration Project and Glasgow’s Buzzing, as well as the many environmental education activities held with partners, Education Services and the Countryside Rangers. Climate Risk Assessment workshops were held for GCC employees in 2013 which included discussion on the benefits and risks to biodiversity.

9. Biodiversity Highlights of the Past Year

- 9.1 The culminations of the Glasgow’s Living Waters Project, Glasgow’s Buzzing project and the TCV Habitat Restoration project have been biodiversity highlights of the past year.
- 9.2 These excellent partnership projects have brought invaluable benefits to the city’s biodiversity – with many hectares of land improved and enhanced for biodiversity along with species surveying and monitoring and the opportunities for people to become involved and raise awareness of the natural environment of the city.

10. The Way Forward

- 10.1 The main challenges ahead, over the next few years will be to find new ways to deliver biodiversity benefits for Glasgow within the current financial climate. This will be best achieved through fully engaging with all services and partner organisations to maximise the efficiency of project delivery. A GCC Biodiversity Duty Plan will be produced and the LBAP will be updated for the next reporting period.

Acronyms

ALEO	Arms length External Organisation
BREEAM	British Research Establishment Environmental Assessment Method
BTO	British Trust for Ornithology
CfE	Curriculum for Excellence
CSV	Community Service Volunteers
DRS	Development and Regeneration Services
FCS	Forestry Commission Scotland
FRM	Flood Risk Management
GCC	Glasgow City Council
IWMS	Integrated Water Management System
LBAP	Local Biodiversity Action Plan
LES	Land and Environmental Services
LNR	Local Nature Reserve
MGSDP	Metropolitan Glasgow Strategic Drainage Partnership
NBN	National Biodiversity Network
NEF	Natural Environment Framework

RSPB	Royal Society for the Protection of Birds
SINC	Site of Importance for Nature Conservation
SNH	Scottish Natural Heritage
SUDS	Sustainable Urban Drainage System
TCV	The Conservation Volunteers
WIAT	Woodland in and around Towns

Appendix (i)

Glasgow City Council

Biodiversity Monitoring Report

April 2011 – March 2012

1. Background and Context

- 1.1 This report has been compiled by Land and Environmental Services' Natural Environment Team (Biodiversity/Ecology), with the support of the Council's partners in the Glasgow Biodiversity Partnership. The purpose of the partnership is to bring a broad range of expertise to the development of Glasgow's Local Biodiversity Action Plan. The Council established a Glasgow Biodiversity Partnership consisting of representatives from 19 different environmental organisations. Key partners include Scottish Natural Heritage, Forestry Commission Scotland, Scottish Environmental Protection Agency and the Royal Society for the Protection of Birds (Scotland) along with other environmental interest groups.
- 1.2 Monitoring is a crucial part of the process and this report summarises the outcomes of the 8th Monitoring Report of Glasgow's Local Biodiversity Action Plan.
- 1.3 Over the past year, the Natural Environment Team has been working with its partners to deliver the implementation of a number of key actions as detailed within Glasgow's Local Biodiversity Action Plan (LBAP).
- 1.4 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 Council fulfils this primarily through the implementation of the Glasgow LBAP.
- 1.5 The Wildlife and Natural Environment (Scotland) Act (2011), further requires public bodies in Scotland to provide a publicly available report, every three years, on the actions they have carried out to meet the biodiversity duty. The content of this annual biodiversity report will contribute towards the statutory Biodiversity Duty Report due for publication in January 2015.

2. Monitoring Report

- 2.1 The year to end March 2012 saw further progress on many fronts for all the main habitat groups (Grasslands, Wetlands, Woodlands and Farmland) which are reported in sections 2.1.1 to 2.1.3 of this report and useful work being undertaken for several species groups such as butterflies, waterfowl and amphibians, as indicated in section 2.1.4. Many initiatives are ongoing; however, each year new projects or activities are started.

2.1.1 Grasslands and Farmland

The targets for unimproved grassland, heathland and farmland are to ensure that there is no net loss of such habitats and that attempts should be made to increase their extent and quality through restoration and positive management. Key outcomes for the period include:

- Meadow management continues at over 40 parks and greenspace sites across the city, covering over 30 Hectares.
- New meadow created at Bellahouston Park

- Glasgow's Buzzing Project launched at Kelvingrove Park – a three year partnership project between GCC and Buglife to survey, create and enhance meadows for bees, butterflies and other invertebrates.

2.1.2 Wetlands

The targets for wetlands are to ensure that there are no net losses of such habitats and that attempts should be made to increase their extent and quality through creation, restoration and positive management. Key outcomes for 2011 include:

- Part naturalisation of Victoria Park boating pond
- Habitat restoration continued at Commonhead Moss LNR with water levels raised through the installation of 30 dams.
- Commonhead Moss pond enlarged and enhanced for amphibians and odonata.
- New ponds created at Pedmyre Farm (3), Dawsholm Park LNR and Red Road SINC.
- Pond enhancement works carried out at Pedmyre Farm.
- Project Officer appointed for the Seven Lochs Wetland Park.

2.1.3 Woodland

The targets for woodland are to ensure no further loss in extent of the existing woodlands whilst encouraging regeneration, new planting and appropriate management to increase the amount and quality of woodland in the city. The Natural Environment Officers (Arboriculture/Woodland) based in LES, remain the focus for implementing woodland management and access work, with funding support being received primarily from Forestry Commission Scotland (FCS). Working with the Council, FCS has been active in the City through appointing Forest Rangers at Easterhouse and Drumchapel and engaging with the local community. Key outcomes for the period include:

- 400 m of new hedgerow planted at Windlaw and Cathkin Braes.
- 1400 m of established hedgerow brought into management on a three year cycle.
- Local woodland activities enabled at Castlemilk Park with local Steering Group.
- Management Plan and works programme developed with Urban Roots for Malls Mire SINC.

2.1.4 Species Survey and Monitoring

The target for species monitoring is to understand the variety, distribution and numbers of species that inhabit our city and record trends over time. Glasgow's records are maintained in the records centre located at Kelvingrove Art Gallery and Museum. Key outcomes for 2011 include:

- Monthly monitoring of water birds at 15 key sites for national counts.
- Breeding amphibian monitoring continued at sites across the city.
- Butterfly transects set up at Hogganfield Park LNR, Robroyston Park LNR and Linn Park LNR.

2.1.5 People and Awareness

The broad objective for raising awareness is to spread information on the environment in a Glasgow context to all sectors of the community. The Natural Environment Team includes 8 Countryside Rangers (7 posts) and 1 Senior Countryside Ranger who are site based and play a major role in delivering environmental education, awareness and access. Key outcomes for the period include:

- Ten year anniversary of the launch of the Glasgow LBAP was celebrated with a Biodiversity Birthday Party at Hogganfield Park which included a week of activities leading up to it.
- Biodiversity Highlights of the past ten years were publicised.
- Linn Park was designated as a Local Nature Reserve.
- The Scottish Environment Minister visited Easterhouse and Hogganfield Park LNR.
- Local Nature Reserve Celebrations held at Robroyston Park LNR and Hogganfield Park LNR.
- International Biodiversity Day schools event held at Glasgow Botanic Gardens.
- Conservation Days in partnership with RSPB held monthly at Kelvingrove Park.
- Glasgow won the Beautiful Scotland Sustainability Award (which has a biodiversity element).
- Glasgow achieved Green Flag awards for Glasgow Botanic Gardens, Glasgow Green and Bellahouston Park.
- SNH promoted 'Nature on your Doorstep' through a series of Radio Clyde adverts featuring Glasgow sites and interviewing Countryside Rangers, Natural Environment Officers and members of the public.
- Path creation at Commonhead Moss LNR which allows easier access to the southern end of the site.
- Castlemilk Park had 1159m of new path installed, 1369m of existing path resurfaced and 6 woodland entrances renovated.
- Interpretative signage was designed and installed for Victoria Park naturalisation and the new pond at Dawsholm Park LNR.
- TCV volunteers carried out 99 days work at 28 sites with 604 volunteer days worked.

Appendix (ii)

Glasgow City Council

Biodiversity Monitoring Report

April 2012 – March 2013

1. Background and Context

- 1.1 This report has been compiled by Land and Environmental Services' Natural Environment Team (Biodiversity/Ecology), with the support of the Council's partners in the Glasgow Biodiversity Partnership. The purpose of the partnership is to bring a broad range of expertise to the development of Glasgow's Local Biodiversity Action Plan. The Council established a Glasgow Biodiversity Partnership consisting of representatives from 19 different environmental organisations. Key partners include Scottish Natural Heritage, Forestry Commission Scotland, Scottish Environmental Protection Agency and the Royal Society for the Protection of Birds (Scotland) along with other environmental interest groups.
- 1.2 Monitoring is a crucial part of the process and this report summarises the outcomes of the 9th Monitoring Report of Glasgow's Local Biodiversity Action Plan.
- 1.3 Over the past year, the Natural Environment Team has been working with its partners to deliver the implementation of a number of key actions as detailed within Glasgow's Local Biodiversity Action Plan (LBAP).
- 1.4 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 Council fulfils this primarily through the implementation of the Glasgow LBAP.
- 1.5 The Wildlife and Natural Environment (Scotland) Act (2011), further requires public bodies in Scotland to provide a publicly available report, every three years, on the actions they have carried out to meet the biodiversity duty. The content of this annual biodiversity report will contribute towards the statutory Biodiversity Duty Report due for publication in January 2015.

2. Monitoring Report

- 2.1 The year to end March 2013 saw further progress on many fronts for all the main habitat groups (Grasslands, Wetlands, Woodlands and Farmland) which are reported in sections 2.1.1 to 2.1.3 of this report and useful work being undertaken for several species groups such as butterflies, waterfowl, wildflowers and water voles as indicated in section 2.1.4. Many initiatives are ongoing; however, each year new projects or activities are started.

2.1.1 Grasslands and Farmland

The targets for unimproved grassland, heathland and farmland are to ensure that there is no net loss of such habitats and that attempts should be made to increase their extent and quality through restoration and positive management. Key outcomes for the period include:

- Meadow management continues at over 40 parks and greenspace sites across the city, covering over 30 Hectares.
- M74 biodiversity and protected species monitoring carried on behalf of Transport Scotland.

- Over 50 Hectares of species-rich grassland continues to be sympathetically managed and enhanced at Carmunnock farmland.

2.1.2 Wetlands

The targets for wetlands are to ensure that there are no net losses of such habitats and that attempts should be made to increase their extent and quality through creation, restoration and positive management. Key outcomes for 2012 include:

- Phase 3 Naturalisation Project carried out at Hogganfield Park LNR.
- Pond creation at Hogganfield Park LNR for flooding alleviation and biodiversity.
- Froglife carried out pond creation and enhancement at Queen's Park, Festival Park, Bellahouston Park, Hurllet Hill, Bishop Loch and Mansewood Park Allotments – 12 new ponds and 5 scrapes.
- Robroyston Park LNR Management Plan was revised and updated for the period 2013-2018.
- Seven Lochs Wetland Park Scoping Report was initiated – looking at wetland habitats and their potential multiple benefits.

2.1.3 Woodland

The targets for woodland are to ensure no further loss in extent of the existing woodlands whilst encouraging regeneration, new planting and appropriate management to increase the amount and quality of woodland in the city. The Natural Environment Officers (Arboriculture/Woodland) based in LES, remain the focus for implementing woodland management and access work, with funding support being received primarily from Forestry Commission Scotland (FCS). Working with the Council, FCS has been active in the City through appointing Forest Rangers at Easterhouse and Drumchapel and engaging with the local community. Key outcomes for the period include:

- Castlemilk Woodlands WIAT works delivered 5 Ha EPS woodland survey, 5 Ha woodland thinning, 136 m of tarmac path creation and 1166m tarmac path resurfacing, along with litter removal, entrance renovations and other associated improvement works.
- Dawsholm Park WIAT works delivered 17 Ha Rhododendron ponticum control and 15 Ha detailed woodland surveying.
- Linn Park woodlands improvements carried out, including 6 Ha Rhododendron control, 7000 new woodland tree and 117 m hedgerow planting and 9 Ha woodland thinning and restructuring.

2.1.4 Species Survey and Monitoring

The target for species monitoring is to understand the variety distribution and numbers of species that inhabit our city and record trends over time. Glasgow's records are maintained in the records centre located at Kelvingrove Art Gallery and Museum. Key outcomes for 2012 include:

- Waterfowl monitoring was carried out at 15 water bodies as part of the national Wetland Birds Survey (BTO).
- Common Frog population monitoring carried out at 15 sites city-wide.

- Froglife carried out amphibian surveys as part of Glasgow Living Waters Project.
- Toad ramp installed at Queen's Park in consultation with 'Friends of Queen's Park'.
- Water Vole survey carried out at Robroyston Park LNR.
- 2 training days – course on Water Voles – held for Pest Control Officers
- Natural Environment Officer attended a Water Vole reintroduction project site visit to Trossachs.
- Species monitoring for Bog Rosemary, Green Hairstreak and Small Pearl-bordered Fritillary carried out.
- Butterfly transects carried out at Hogganfield Park LNR, Robroyston Park LNR and Linn Park LNR.
- Advice on foxes given to members of the public.

2.1.5 People and Awareness

The broad objective for raising awareness is to spread information on the environment in a Glasgow context to all sectors of the community. The Natural Environment Team includes 8 Countryside Rangers (7 posts) and 1 Senior Countryside Ranger who are site based and play a major role in delivering environmental education, awareness and access. Key outcomes for the period include:

- Green Flag management continued at award winning parks Glasgow Green, Botanic Gardens and Bellahouston Park , which include biodiversity elements.
- Three new Local Nature Reserves designated at Linn Park, Cathkin Braes and Dams to Darnley.
- TCV 78 grant-funded volunteer team days carrying out grassland, woodland and wetland habitat restoration work – 468 volunteers carried out 2340volunteer hours at 20 sites.
- Skills & Employability Programme delivered 550 training days woodland
- Seven Lochs Volunteers carried out 425 volunteer hours – habitat management, wildlife surveys and litter picks.
- improvements in Auchinlea Park, Carmunnock SRC, Dawsholm Park and Linn Park.
- Events held at Robroyston Park LNR, Hogganfield Park LNR, Linn Park LNR and Dawsholm Park LNR.
- Year of Natural Scotland, 'Simple Pleasures Easily Found in East Glasgow' leaflet and project launch in Robroyston Park LNR
- International Biodiversity Day schools event held at Glasgow Green.
- A TCV Natural Communities trainee placement undertook Biodiversity and Community Involvement projects, including 'Wild for Art' working with teenagers in a youth club at Robroyston, and 'John Muir Discovery Award' in partnership with Children's Inclusion Partnership, where primary school pupils in Possil were successfully led through their John Muir award.
- GCC Ecologist gave presentation on Raised Bog and Peatland Restoration to Scottish Government peatland restoration working group.
- An all school biodiversity recording event was held for Ruchill Primary school.
- Friends of Ruchill Park carried out wildflower planting.
- Conservation Days in partnership with RSPB were held at Kelvingrove Park.
- Green Gym volunteers carried out habitat management at Robroyston Park LNR and Provanhall.

- Feed the Birds Day held at Hogganfield Park LNR by the RSPB Glasgow group.
- Festival of Frogs held by Froglife at Festival Park to promote amphibians.
- Seven Lochs Wetland Park Community Engagement Workshops held.
- Biodiversity advice given to Kennyhill Allotments.
- Carmunnock Short Rotation Coppice maintained for groups and individuals training and education opportunities.
- Commonwealth Sculpture Trail – schools design workshops and Baobab Tree sculpture installed at Tollcross Park. Other design workshops underway.
- Commonwealth Legacy community woodland planting event held with 1500 trees planted and 1260 ground flora at Linn Park.
- Interpretation and directional finger post signage installed at Linn Park.
- 10,000 Linn park leaflets ordered.
- National Biodiversity Network Meetings attended by Biodiversity Officers in spring and autumn.

Appendix (iii)

Glasgow City Council

Biodiversity Monitoring Report

April 2013- March 2014

1. Background and Context

- 1.1 This report has been compiled by Land and Environmental Services' Natural Environment Team (Biodiversity/Ecology), with the support of the Council's partners in the Glasgow Biodiversity Partnership. The purpose of the partnership is to bring a broad range of expertise to the development of Glasgow's Local Biodiversity Action Plan. The Council established a Glasgow Biodiversity Partnership consisting of representatives from 19 different environmental organisations. Key partners include Scottish Natural Heritage, Forestry Commission Scotland, Scottish Environmental Protection Agency and the Royal Society for the Protection of Birds (Scotland) along with other environmental interest groups.
- 1.2 Monitoring is a crucial part of the process and this report summarises the outcomes of the 10th Monitoring Report of Glasgow's Local Biodiversity Action Plan.
- 1.3 Over the past year, the Natural Environment Team has been working with its partners to deliver the implementation of a number of key actions as detailed within Glasgow's Local Biodiversity Action Plan (LBAP).
- 1.4 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 Council fulfils this primarily through the implementation of the Glasgow LBAP.
- 1.5 The Wildlife and Natural Environment (Scotland) Act (2011), further requires public bodies in Scotland to provide a publicly available report, every three years, on the actions they have carried out to meet the biodiversity duty. The content of this annual biodiversity report will contribute towards the statutory Biodiversity Duty Report due for publication in January 2015.

2. Monitoring Report

- 2.1 The year to end March 2014 saw further progress on many fronts for all the main habitat groups (Grasslands, Wetlands, Woodlands and Farmland) which are reported in sections 2.1.1 to 2.1.3 of this report and useful work being undertaken for several species groups such as butterflies, waterfowl, wildflowers and water voles as indicated in section 2.1.4. Many initiatives are ongoing; however, each year new projects or activities are started.

2.1.1 Grasslands and Farmland

The targets for unimproved grassland, heathland and farmland are to ensure that there is no net loss of such habitats and that attempts should be made to increase their extent and quality through restoration and positive management. Key outcomes for the period include:

- During 2013, LES and Buglife worked together on the grant funded Glasgow's Buzzing project to transform cut grass into colourful wildflower rich meadows. Wildflower seed was sown at Hogganfield Park and Cranhill Park, and over 14,000 wildflowers were planted at 14 sites across the City. LES now manages over 20 hectares (ha) of wildflower meadows in urban parks and greenspaces for biodiversity. Buglife are monitoring the success of this project by surveying the pollenating insects at key sites and have recorded an increase in diversity. 125 invertebrate species have been recorded to date. Buglife is the only organisation in Europe devoted to the conservation of all invertebrates, and LES is actively working to save Britain's rarest little animals, from bees to beetles, worms to woodlice and jumping spiders to jellyfish. There are more than 40,000 invertebrate species in the UK, and many of these are under threat.
- Over 80 hectares of farmland at Carmunnock, Pedmyre and Windlaw is managed positively for biodiversity. This includes wildflower meadows, farmland bird grassland (cut after birds breed), sensitive hedgerow management, trees, pond creation and un-harvested crops for winter bird food. 49 hectares are funded by the Scottish Rural Development Programme.
- Farmland bird plot was ploughed at Hogganfield Park.
- In total, Glasgow now has over 65 hectares of wildflower meadows managed for biodiversity, which amounts to more than 75 Hampden Park sized football pitches.

2.1.2 Wetlands

The targets for wetlands are to ensure that there are no net losses of such habitats and that attempts should be made to increase their extent and quality through creation, restoration and positive management. Key outcomes for 2013 include:

- Green Stimulus grant funding has been secured for Bog Restoration at Commonhead Moss Local Nature Reserve (LNR). Fully funded works included installation of 20 plastic piling dams, the removal and subsequent treatment of nearly 8 hectares of scrub and the felling of a small area of mature birch woodland.
- Community Service Volunteer (CSV) funding secured for Commonhead Moss (pond creation with Seven Lochs Project volunteers).
- Glasgow Living Water Project (partnership project lead by Froglife) - Bulrush management carried out at Hogganfield Park (LNR) and Robroyston Park LNR.
- Ponds created at Cathkin Braes LNR.

- Froglife (Glasgow Living Waters Project) carried out amphibian (8 sites) and aquatic invertebrate and pond vegetation surveys (4 sites).
- Sluice at Robroyston Park LNR repaired, allowing water levels to be manipulated for migrant waterfowl.
- Central Scotland Green Network (CSGN) funding secured for naturalisation of Knightswood Park pond.
- At Maryhill Park biodiversity designs for wildlife pond and damp wildflower meadows were developed.
- Ecological enhancement of Cathkin Braes mountain bike route – vegetation transplanted from Hogganfield.

2.1.3 Woodland

The targets for woodland are to ensure no further loss in extent of the existing woodlands whilst encouraging regeneration, new planting and appropriate management to increase the amount and quality of woodland in the city. The Natural Environment Officers (Arboriculture/Woodland) based in LES, remain the focus for implementing woodland management and access work, with funding support being received primarily from Forestry Commission Scotland (FCS). Working with the Council, FCS has been active in the City through appointing Forest Rangers at Easterhouse and Drumchapel and engaging with the local community. Key outcomes for the period include:

- Surveys completed for iTree Eco which is a software application designed to use field data along with local hourly air pollution and meteorological data to quantify urban forest structure, environmental effects, and value to communities. The survey provides baseline data that can be used for making effective resource management decisions, developing policy and setting priorities. In tandem with the i-Tree eco, an i-Tree hydro report has also been commissioned which will report on the ability of the city's tree stock to contribute to managing local catchment. This has increasing relevance in the mitigation of climate change. This work is being carried out in partnership with Forestry Commission Scotland on these international standard models and we are currently waiting outcomes reports for both studies. Glasgow is the first local authority to commission i-Trees hydro in the UK.
- During 2013, 45,000 GCC amenity trees were surveyed using the Council's new electronic tree management system.
- Partnership working with FCS at Haughill Wood located in the city's Pollok area to study the health benefits of managed accessible woodland. GCC has leased the woodland to FCS who will work with the National Health Service to assess whether local health benefits can be attributed to improved access to managed woodland. This is part of a

Scottish health study which started at Haughill in June 2013 and is programmed to run for four years.

- The Woodlands in and Around Towns (WIAT) programme delivered at Linn Park and Castlemilk Woods to remove dead and dangerous trees, improve access, remove non native invasive species such as Rhododendron Ponticum and install interpretation covering 92 hectares was completed in 2013.

2.1.4 Species Survey and Monitoring

The target for species monitoring is to understand the variety distribution and numbers of species that inhabit our city and record trends over time. Glasgow's records are maintained in the records centre located at Kelvingrove Art Gallery and Museum. Key outcomes for 2013 include:

- Butterfly surveys and transects are coordinated by the Countryside Ranger Service (CRS) and carried out by volunteers at a number of sites including Robroyston Park LNR, Hogganfield Park LNR and Commonhead Moss LNR. The results are sent to the National Biodiversity Network and contribute to national biodiversity indicator monitoring.
- Waterfowl monitoring (over 30 different species) was carried out at 15 water bodies as part of the national Wetland Birds Survey (British Trust for Ornithology) to contribute to assessing national trends.
- Water vole survey carried out at Robroyston Park LNR and East End open spaces.
- Information sharing event on water voles between GCC and Scottish Natural Heritage (SNH) at Garthlamock.
- Advice given to Glasgow Housing Association about water voles.
- Funding secured from GCC Sustainability Innovation Fund for a Masters student from the University of Glasgow to study Glasgow's unique population of urban non aquatic water voles.
- M74 biodiversity and protected species monitoring carried out on behalf of Transport Scotland.
- Monitoring of key species (Bog Rosemary, Green Hairstreak, Small Pearl-bordered Fritillary) carried out at Commonhead Moss LNR.
- Wildflower nursery at Daldowie / Bellahouston maintained.

2.1.5 People and Awareness

The broad objective for raising awareness is to spread information on the environment in a Glasgow context to all sectors of the community.

The Natural Environment Team includes 8 Countryside Rangers (7 posts) and 1 Senior Countryside Ranger who are site based and play a major role in delivering environmental education, awareness and access. Key outcomes for the period include:

- GCC supported 'Year of Natural Scotland' and the 'Simple Pleasures Easily Found' campaigns developed by SNH which created 9 self guided walking routes at the Forth & Clyde Canal, River Clyde & Glasgow Green, River Kelvin, White Cart Water, 7 Lochs Proposed Wetland Park, Glasgow Green to Richmond Park, Alexandra Park, Early Braes Park and Robroyston Local Nature Reserve
- Aliens, Natives and Reintroductions Conference was held at the University of Glasgow, supported by grant funding from the British Ecological Society.
- The Conservation Volunteers (TCV) hosted 50 grant funded volunteer team days, throughout the City, carrying out grassland, woodland and wetland habitat restoration work – 390 volunteers carried out 1755 volunteer hours at 25 sites including Kelvingrove Park, Cranhill Park, Dawsholm Park LNR and Hurllehill (Pollok).
- LNR path network repairs carried out at Robroyston Park LNR to allow better access for the public.
- LNR celebration events held at Robroyston, Hogganfield and Linn Park which attracted attendance of over 600 people and secured Community Service Volunteers grant of £1,500 to support the LNR events.
- Plantlife launch of Wild About Plants initiative held at Linn Park LNR, in conjunction with GCC Countryside Ranger Service (CRS) and 1,000 wildflower plant plugs planted on the day.
- Feed the Birds Day held at Hogganfield Park LNR by Friends of LNRs and the Royal Society for the Protection of Birds (RSPB) local Glasgow group.
- 6 bird boxes were erected and 25 bags of litter were removed at Hogganfield Park LNR by the Friends of LNRs during a one day event.
- A guided walk of Hogganfield Park LNR attracted 25 attendees of the Scottish Wildlife Trust (Glasgow Group). This was hosted by a Natural Environment Officer and Countryside Rangers.

- Selection of created and naturalised ponds visited by Scottish Parliament Common Toad champion Drew Smith MSP including allotment ponds and promotion of these for biodiversity.
- Green Gym at sites including Robroyston Park and Provan Hall.
- Climate Risk Assessment Workshops held for GCC employees – which included discussion on the benefits and risks to biodiversity.
- 200 Woodland Trust trees were planted by RSPB volunteers in partnership with GCC, at Dawsholm Park LNR.
- Conservation Days carried out at Kelvingrove Park butterfly garden with volunteers from RSPB and TCV.
- National Biodiversity Network Meetings attended by Biodiversity Officers in spring and autumn.
- Countryside Ranger Service (CRS) delivered 4,788 volunteer hours with pupils aged,14-18 yrs, doing a clean up in Springburn Park.
- Himalayan Balsam pulling at Tollcross and Pollok Country Park equated to 64 hours.
- CRS organised the annual International Schools Biodiversity Day held at Victoria Park, attended by 211 pupils, from 5 local primary schools supported by Education Services grant with 380 wildflowers planted on the day.
- The CRS attended 7 school Eco Day events organised by schools.
- The CRS in 2013 has undertaken 95 individual Curriculum for Excellence through outdoor learning sessions in parks and in Glasgow schools, to 2,936 pupils between the ages of 3 – 16years. On a variety of curriculum topics such as Biodiversity in the park, Woodlands/trees, Spring/Autumn life, Wildlife of Glasgow, Pond Life, Living Things, Eco Walks, Habitats and Birds.
- Schools Parks Commonwealth Twinning Project - a total of 51 individual Healthy World talks and visits, to 2,914 pupils as part of Schools Parks Twinning Legacy Project, across the 11 Commonwealth Hub Parks.
- CRS has delivered a total of 90 events, ranging from guided walks, local nature reserve days, to Community Gala days Glasgow Show and Pollok Family Day.
- In total, the CRS has delivered the biodiversity message to 13,438 members of the public in 2013. This is number includes 5,850 school children at education events and 7588 at guided walks, local nature

reserve days, to Community Gala days Glasgow Show and Pollok Family Day.

3. Emerging Issues

- 3.1 As noted in paragraph 1.5 under the *Wildlife and Natural Environment (Scotland) Act (2011)*, a duty was placed on all public sector bodies in Scotland to connect people with the environment and manage biodiversity in the wider environment all around us, not just in specific protected sites.

As such, Glasgow's Natural Environment Officers (Biodiversity/Ecology) are required to prepare a report for all services and arms length organisations of the council by January 2015.

- 3.2 A biological audit of all species and habitats found in the city is currently being updated (funded by GCC-DRS and Glasgow Life) in preparation for the production of The Natural Environment Framework (NEF) currently being developed as a joint LES/DRS initiative. The proposed NEF will gather the council's policies and actions on wider environmental issues such as geodiversity, climate change, air and water quality and management into a single document which will contain a policy framework for updating the LBAP. Work on updating the LBAP will commence when the NEF policy framework has been established so that the LBAP actions and targets meet the set requirements.

4. Next Steps

- 4.1 The production of the Biodiversity Duty Report, together with the development of the proposed Natural Environment Framework and the refresh of the Local Biodiversity Action Plan (LBAP) for Glasgow will form the focus of the strategic work for the Council's Biodiversity / Ecology officers over the next 12 months. Meeting the Single Outcome Agreement (SOA) target of having 0.88 hectares of Local Nature Reserve per 1,000 head of population by March 2015 will also be a key task for the Natural Environment Officers (Biodiversity/Ecology) for the coming year.
- 4.2 In addition, LBAP projects will continue over the next 12 months which will build on the significant progress detailed in this report. This will include further wildflower meadow enhancements, pond naturalisations, LNR management and managing Glasgow's urban forest and amenity tree stock. Key projects to deliver are Seven Lochs Wetland Park, Glasgow's Buzzing and the daffodil park within Ruchill Park which includes biodiversity elements of wildflower establishment.

5. Council Strategic Plan Implications

<i>Economic Impact:</i>	None
<i>Sustainability:</i>	The implementation of the LBAP is beneficial to the Environment and helps to make Glasgow's wildlife more resilient to climate change.
<i>Financial:</i>	None
<i>Legal:</i>	Essential to deliver on Glasgow's Biodiversity Duty under the Nature Conservation (Scotland) Act (2004).
<i>Personnel:</i>	None
<i>Sustainable Procurement and Article 19:</i>	None

Appendix (iv)

Biodiversity Duty Service Report. GCC Development and Regeneration Services.

Section 1. Governance, Leadership and Corporate Management

Ref	Action	Lead Partner	Outcomes	Year
1.1	Produce a Council-wide Natural Environment Framework (NEF)	DRS	All relevant strategies and Plans will be collated to streamline biodiversity processes	2013 Ongoing
1.2	Undertake internal Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) Vision and Guiding Principles Briefing Sessions to roll out the key messages to partner organisation colleagues	DRS Flood Risk Management (FRM)	MGSDP partner organisations understand and implement Vision and Guiding Principles	2013, 2014

Section 2. Action for Biodiversity

Ref	Action	Lead Partner	Outcomes	Year
2.1	Promote and support key projects in alignment with MGSDP Guiding	DRS FRM	Supported successful delivery of key projects	2012, 2013, 2014 Ongoing

	Principles for delivery of biodiversity benefits – ie through delivery of Sustainable Urban Drainage Systems (SUDS), green infrastructure and blue-green networks		such as London Road SUDS, South Dalmarnock SUDS, Carstairs Street SUDS, North Glasgow Integrated Water Management Strategy (IWMS) feasibility study and Camlachie Burn de-culverting design	
2.2	Stalled Spaces – the project focuses on the temporary use of vacant land, under-utilised open space and sites earmarked for development though stalled http://www.glasgow.gov.uk/stalledspaces	DRS	Supported delivery of a number of projects including numerous community growing spaces and bee hives	2011, 2012, 2013 Ongoing
2.3	Improved biodiversity through the development management process	DRS	Improving biodiversity through discussions and negotiations during the development management process. Examples include the inclusion of a green roof (13/00069/DC) and improved landscaping for habitat creation (11/02315/DC)	2011, 2012, 2013 Ongoing
2.4	Biodiversity Audit	DRS	Undertaken to support the development of the	2013

			NEF	
2..5	Public Realm	DRS	Introduce street trees and plantings into the city centre	2011, 2012, 2013 Ongoing

Section 3. Mainstreaming

3.1	Develop the MGSDP Guiding Principles – http://www.mgsdp.org/index.aspx?articleid=9958 – including ‘Enhancement of our urban biodiversity and landscape’ and ‘Creation of integrated blue-green networks’ for partners to adopt and advocate as part of best practice, business as usual, delivery	DRS FRM	MGSDP partners define, agree and adopt Guiding Principles, then deliver through ongoing and future projects	2013
3.2	Develop guidance on implementing the MGSDP Guiding Principles	DRS FRM	Guidance document available for MGSDP partner organisations to aid understanding and implementation of Vision and Guiding Principles	2013
3.3	Set up and support the formation of a Surface Strategy Group to promote surface water management and best practice, including the delivery of SUDS and green infrastructure best practice	DRS FRM	Multi-organisation Surface Strategy Group set up and meeting every 6 weeks	2013 Ongoing
3.4	City Development Plan http://www.glasgow.gov.uk/index.aspx?articleid=3011	DRS	Provide guidance for development to achieve environmental goals and in turn improve biodiversity	2013 Ongoing

			to create a 'green place'	
3.5	Open Space Strategy http://www.glasgow.gov.uk/index.aspx?articleid=3641	DRS	Protect and improve existing open spaces and highlight areas with a deficit in open space	2013 Ongoing
3.6	ENV 2 – City Plan 2 Policy http://www.glasgow.gov.uk/index.aspx?articleid=7090	DRS	Creating new landscape recreation and children's play	2011, 2012, 2013 and Ongoing

Section 4. Monitoring

Ref	Action	Lead Partner	Outcomes	Year
4.1	Tree Preservation Orders (TPOs)	DRS	The protection and monitoring of trees. TPOs are continually monitored	2012, 2013 Ongoing
4.2	PAN 65 Open Space Map http://www.glasgow.gov.uk/index.aspx?articleid=5857	DRS	The PAN 65 is updated to include new open spaces and to account for the loss of open spaces due to development	2011, 2012, 2013 Ongoing
4.3	Glasgow Biodiversity Audit	DRS, Glasgow Life, LES	Update of 2001 Biodiversity Audit, listing species of plant, animal and fungi recorded in	2013

			Glasgow	
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Section 5. Partnership Working

5.1	Champion integrated/collaborative working and information sharing between MGSDP partners and through regular meetings, workshops, presentations and specific projects	DRS FRM	Collaborative and integrated project definition, programming and implementation between MGSDP partners	2012, 2013, 2014
5.2	Develop methodology for assessment of integrated/collaborative working on key projects	DRS FRM	Methodology for the assessment of effective integrated working between MGSDP partners on specific projects	2014
5.3	Development of i-Tree eco	DRS, LES, FCS	Provided an assessment on the impact of trees on a range of ecosystem services. Helps increase the profile of Glasgow's urban forests, ensuring their value is maintained and improved on	2013 Ongoing

5.4	Data Sharing Agreement with Scottish Badgers	DRS, Glasgow Life	Agreement signed between DRS, Glasgow Life and Scottish Badgers to share records of badgers for Glasgow to use for dealing with planning applications	2012 signed, data sharing Ongoing
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Section 6. Biodiversity Communications

Ref	Action	Lead Partner	Outcomes	Year
6.1	Produce bi-annual MGSDP newsletters – promoting key projects delivering the Vision, including biodiversity elements	DRS FRM	Bi-annual newsletter produced and circulated to key stakeholders for awareness	2012, 2013, 2014 Ongoing

Appendix (v)

Biodiversity Duty Service Report. Glasgow Life.

Section 4. Monitoring

Ref	Action	Lead Partner	Outcomes	Year
4.1	Maintain and enhance biological records database for Glasgow (Glasgow Museums Biological Records Centre)	Glasgow Life	14,020 additional records added 2011-2013	2011, 2012, 2013
4.2	Update Biological Audit for Glasgow	Glasgow Life	Revised audit completed autumn 2013.	2013
4.3	Carry out butterfly transect at Glasgow Life sites	Glasgow Life	Butterfly transect implemented at Glasgow Museums Resource Centre	2011 ongoing

Section 5. Partnership Working

Ref	Action	Lead Partner	Outcomes	Year
5.1	Partnership with RSPB	Glasgow Life	RSPB staff based in Kelvingrove Museum, promoting biodiversity and wildlife conservation to the public	2011 ongoing
5.2	Partnership with local communities in Glasgow	Glasgow Life	Produced display and leaflets on wildlife of Possil Marsh for Lambhill Stables	

Section 6. Biodiversity Communications

Ref	Action	Lead Partner	Outcomes	Year
6.1	Promote biodiversity through museum displays and activities	Glasgow Life	Displays, talks and activities in Kelvingrove Museum	2011 ongoing
6.2	Promote the Year of Natural Scotland	Glasgow Life	Year of Natural Scotland specific displays and activities in Kelvingrove Museum during the year	2013
6.3	Take part in Glasgow Science Festival	Glasgow Life	Stand relating to biological recording at 'Science Sunday' and various activities in Kelvingrove Museum	2011, 2012, 2013

Appendix (vi)

Biodiversity Duty Report. City Building (Glasgow) LLP

- City Building has been an Arms-length Organisation since 2006.
- City Building is a multi service provider, involved in many aspects of construction and management; including manufacturing, maintenance, new build construction, renovation and servicing.
- City Building operates under an Environmental Management System to ISO 14001:2004 standard.
- City Building employs Environmental Officers who manage the EMS, conduct audits and inspections. Environmental Officers liaise with GCC and external arborists, ecologists, bat officers and other specialists relating to biodiversity and species protection.
- As a major construction organisation, the main impacts on biodiversity occur on the construction sites we operate. City Building acknowledge that most biodiversity issues require addressing at the planning stage to implement protection, recommendations and mitigation as required.
- Additionally City Building operate from (6) premises in Glasgow and are responsible for the habitats within the boundaries of these sites.

Section 1. Governance, Leadership and Corporate Management

Ref	Action	Lead Partner	Outcomes	Year
1.1	Leadership – incorporate biodiversity into Working Well Together Seminars	CB	To provide information to CB and contractors	2012 and 2013

Section 2. Action for Biodiversity

Ref	Action	Lead Partner	Outcomes	Year
2.1	Provide information through provision of Environmental Plans on all major construction sites to include biodiversity information	CB	(5) plans in 2012, (6) plans in 2013, (2) plans in 2014	2012, 2013, 2014
2.2	Implement recommendations from ecology surveys and tree surveys as required on sites	CB	Provide root protection areas on sites; provide nest protection area during nesting season on sites; implement recommendations from bat surveys; implement invasive weed management plans on sites	2012, 2013, 2014

Section 3. Mainstreaming

Ref	Action	Lead Partner	Outcomes	Year
3.1	Incorporate biodiversity into management, supervisory and operative staff training	CB	Biodiversity included within Environmental Management training	2012, 2013, 2014

			course and within Environmental Awareness course for apprentices	
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Section 4. Monitoring

Ref	Action	Lead Partner	Outcomes	Year
4.1	No data reports in 2012, 2013, 2014			

Section 5. Partnership Working

Ref	Action	Lead Partner	Outcomes	Year
5.1	No involvement in Local Biodiversity Partnership in 2012, 2013, 2014			

Section 6. Biodiversity Communications

Ref	Action	Lead Partner	Outcomes	Year
6.1	Appoint biodiversity champions as part of BREEAM assessments for registered sites	LES/CB	External verification of BREEAM registered sites	2012, 2013, 2014
6.2	Maintain toolbox talks and information on – Habitats; Spills; Non-native plants; Bats; Tree protection; Birds and bird nests; Bees and wasps	CB	Toolbox talks provided as required	2012, 2013, 2014

Appendix (vii)

Biodiversity Duty Report. GCC Education Services.

Section 1. Governance, Leadership and Corporate Management

Ref	Action	Lead Partner	Outcomes	Year
1.1	Produce a Service Wide Strategy for Outdoor Learning	Education Services	All establishments engaging with Outdoor Learning, which will in turn raise awareness of biodiversity	2012 Ongoing
1.2	Implement recommendations from Scottish Government in relation to 'learning for sustainability'	Education Services	Produce guidance and CPD opportunities to match recommendations of 'Learning for Sustainability' document in relation to Biodiversity	2014 Ongoing

Section 3. Mainstreaming

Ref	Action	Lead Partner	Outcomes	Year
3.1	Through 'Eco Schools' programme, promote and encourage schools to engage with Biodiversity element and link to CfE.	Education Services	Identify schools who have opted for 'Biodiversity' as one of their chosen topics and offer appropriate support	2014 Ongoing

Section 4. Monitoring

Ref	Action	Lead Partner	Outcomes	Year
4.1	Monitoring of 'Outside Now' Strategy	Education Services	Increase the number of establishments implementing all aspects of strategy.	2013 Ongoing

Section 5. Partnership Working

Ref	Action	Lead Partner	Outcomes	Year
5.1	Working with partnership organisations, John Muir Trust, Field Studies Council, Glasgow Countryside Rangers e.t.c to promote Biodiversity activities to match CfE outcomes.	Education Services	Raise number of schools, young people taking part in Biodiversity projects in schools.	2014

Section 6. Biodiversity Communications

Ref	Action	Lead Partner	Outcomes	Year
6.1	Promote Biodiversity section of Glasgow Online http://www.goglasgow.org.uk/pages/show/319	Education Services	Update information and add links as required	2012 Ongoing