Biodiversity Duty Report for Shetland Islands Council

2015-2017

Shetland
Islands Council

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Contents

1. Introduction

1.1 Biodiversity is the diversity of wildlife around us. It includes animals, plants, fungi, bacteria and other micro-organisms, genetic variation within species, and the variety of habitats and ecosystems.

1.2 The Nature Conservation (Scotland) Act 2004 places a duty on all public bodies in Scotland to further the conservation of biodiversity when carrying out their functions. The Wildlife and Natural Environment (Scotland) Act 2011 further requires all public bodies in Scotland to provide a publicly available report, every three years, on the actions they have taken to meet this biodiversity duty.

1.3 This report sets out how the Council has complied with the biodiversity duty for the period 1 January 2015 to 31 December 2017. The format used is based on a suggested reporting template produced by the Scottish Government and addresses the following themes:

- Mainstreaming - incorporating biodiversity measures into other areas of policy, strategies or initiatives
- Actions taken to improve biodiversity conservation
- Partnership working and biodiversity communications.
- Biodiversity highlights and challenges.
- Contribution to targets – e.g. AICHI, 2020 Vision.

1.4 The Shetland Islands include over 100 islands that stretch around 110km (70 miles) from North to South with 15 inhabited. Shetland lies on a latitude between 59° and 61°N, 477km north of Edinburgh and just 644km south of the Arctic Circle. The Shetland archipelago extends to about 1468km2 with a coastline of approximately 2700km. Shetland has a mild climate with higher average temperatures than its latitude might suggest as a result of the warming effect of the north Atlantic Drift (or Gulf Stream). Rainfall is relatively low averaging only 1200mm per annum, which is less than half of the rainfall experienced in the West Highlands of Scotland. The most significant features of the climate of Shetland are the relatively narrow range of average temperatures and almost constant change and force of the wind.

1.5 Shetland's landscape has been shaped over millions of years by rain, wind, ice and waves and the geology that underlies its landscape is some of the most complex and diverse in the UK. Shetland carries some of Scotland's oldest rocks, a sliver of deep ocean crust and a host of unusual minerals has been sculpted from this diverse geology by rivers, glaciers and the sea over the past few million years. Major landforms survive from before the Ice Age, notably Ronas Hill, while hundreds of lochans, voes and sounds evidence deep glacial erosion across the isles. Shetland's outer coast displays some of the most spectacular cliff scenery in the world whilst her inner coast is dotted with a myriad of sandy beaches and ayres.

1.6 The richness of this geology and geomorphology is the foundation for the many layers of natural habitat and human history that make Shetland so special and, in recognition of this outstanding geological heritage Shetland has been included into the UNESCO Global Geoparks Network.

1.7 Shetland's biodiversity is hugely significant, locally, nationally and internationally and the following summarises some key biodiversity interests.

- Shetland is home to one tenth of the total seabird population of Britain – in excess of 750,000 birds from 22 species
- Shetland is also of great importance to migrating birds with nearly 450 species recorded in the islands.
- 11 species listed in Annex 1 of the EU Birds Directive nest in Shetland and several others occur as migrant or wintering birds
- There are a number of protected species in Shetland as listed under the Wildlife and Countryside Act 1981 (as amended by the Nature conservation (Scotland) Act 2004) these include:
    - 9 breeding birds listed under Schedule 1
    - 3 other animals listed under Schedule 5
    - 4 plants listed under Schedule 8

- Shetland has 111 designated areas, of which a number overlap (for example, all SACs and SPAs are already designated SSSIs):
    - 78 Sites of Special Scientific Interest (SSSI) (this includes 40 designated for Earth sciences)
    - 12 Special Areas of Conservation (SAC)
    - 12 Special Protection Areas (SPA)
    - 3 proposed Special Protection Areas (pSPA)
    - 1 Ramsar Site
    - 2 National Nature Reserves
    - 2 Nature Conservation Marine Protected Areas (MPA)
    - 1 Demonstration and Research Marine Protected Area

- There are a number of non-statutory natural heritage sites, including
    - 4 Marine Consultation Areas
    - 4 RSPB reserves
    - 49 Local Nature Conservation Sites (this includes 9 identified for geology)
    - Shetland is a UNESCO Global Geopark

2. Mainstreaming

2.1 Shetland Islands Council (SIC) is responsible for providing a very wide range of public services and owns or manages an extensive estate. In addition, it produces numerous strategic policy and planning documents to guide its direction and operations. All of these factors mean that the Council, its staff, contractors, agents and activity all have the potential to impact on furthering the conservation of biodiversity.

2.2 The Council is made up of 22 elected members who represent 7 wards across Shetland and whom set overall policy and direction. It operates through a system of committees with officers reporting to committees on relevant matters. Corporate governance is provided by the elected members through 5 directorates that manage the delivery of public services with the Chief Executive in overall charge of Council operations.

2.3 The Council's 5 directorates are:

- Children's Services
- Community Health and Social Care
- Development Services
- Infrastructure Services
- Corporate Services

2.4 For a summary of the services provided under each directorate, see: http://www.shetland.gov.uk/about_our_structure/

2.5 The Council must produce a range of key documents that guide how it will plan for economic, social and environmental progress and in providing its services. The key strategies that directly impact how the Council will further the conservation of biodiversity are as follows.

- Corporate Plan
- Local Outcomes Improvement Plan
- Shetland Local Development Plan
- Local Housing Strategy
- Shetland Transport Strategy 2008 (under review)
- Shetland Islands' Marine Spatial Plan (not currently a strategic plan) – will be replaced by the Regional Marine Plan, which will fall into this category

2.6 Biodiversity is referenced in the Shetland Partnership Plan for the reporting period under the target "To protect and enhance our natural environment, and promote the social benefits it provides", with the following specific indicators

- All biodiversity category targets are met
- Favourable Condition of nature sites

2.7 There are a number of other plans and strategies produced by the Council that also have the potential to further the conservation of biodiversity; some of these are obligations on the Council, others are not. There may be other plans and strategies not listed here that also have the potential to further the conservation of biodiversity.

- SIC Economic Development Policy Statement 2017
- Shetland's Integrated Children's Service Plan 2017-2020
- Joint Strategic (Commissioning) Plan 2016-19
- Shetland Community Justice Plan
- Community Learning & Development Plan 2015-18
- Sport and Recreation Strategy 2012-17 (under review – new Sport & Physical Activity Strategy about to be published)

2.8 Other plans that may impact on biodiversity include

- Carbon Management Plan
- Scottish Climate Change Declaration
- Property Asset Management Plan
- Development Management
- Local Biodiversity Action Plan
- Sustainability Policy
- Ranger Service Contract
- Shetland Environmental Strategy – Shetland Environment Partnership
- Relevant plans are subject to SEA and EIA

2.9 Biodiversity is a cross-cutting theme, with all Council services subject to the duty to further its conservation. The Planning Service, within the Development Services Directorate, takes the lead on natural heritage matters, including the duty to further the conservation of biodiversity and reporting thereon.

3. Actions taken to improve biodiversity conservation

3.1 The Council has been involved in a number of actions that could benefit biodiversity, either directly or through application and interpretation of policy and guidance. It also worked in partnership with others to further the conservation of biodiversity.

Policy Development and Implementation

- The Local Development Plan (LDP) is the principal planning policy document and has a significant role in furthering the conservation of biodiversity. It is supported by Supplementary Guidance (SG) and these underpin the planning policy and development management actions below.
- The Council adopted Supplementary Guidance Local Nature Conservation Sites (LNCS) in 2015, which identifies Shetland's best local sites for nature. The Supplementary Guidance sets out detailed policy advice to help developers meet the requirements of the Local Development Plan and conserve local biodiversity. It expands on the Planning Policy NH4 Local Designations with regard to Local Nature Conservation Sites, providing further information and maps of the LNCS
    - LNCS surveys and assessments – surveys, assessments and ongoing monitoring of existing and possible candidate new LNCS are ongoing, undertaken by Shetland Biological Records Centre, under contract

- Shetland Islands Marine Spatial Plan is also SG to the LDP and was adopted in 2015; it sets out the detailed policies and advice to meet the requirements of the Local Development Plan for developments and infrastructure in the coastal zone. Marine spatial planning in Shetland is evolving and the SIMSP seeks to ensure the sustainable management of the marine environment.
    - As part of implementing the SIMSP, the NAFC Marine Centre has developed and published a "Biosecurity Plan for the Shetland Islands" and various information on Introduced Non-Native Species (INNS), including an identification guide and recording form; the Planning Service contributed to this important work that has an important role in conserving Shetland's biodiversity

- The Natural Heritage SG (draft) provides guidance to developers on how to interpret natural heritage legislation and policy, primarily for development management purposes
- Habitat Regulations appraisals are undertaken for any projects likely to have a significant impact on EU Natura Sites through the Development Management process
- Biodiversity (habitat and species gains) as a result of the Natural Heritage Officer's advice as part of the Development Management process e.g. leading to appropriate ecological surveys and assessment for planning applications that have the potential to impact on protected biodiversity, including requiring avoidance and mitigation measures where necessary. Approximately 350 planning applications are received every year and SBRC screen them for potential impacts on, or opportunities for, biodiversity, with an average of about 10% requiring some advice on biodiversity. Through identifying the need for species or habitat survey, negotiation or the use of conditions biodiversity has been conserved or enhanced at a number of developments and locations
- The Shetland Community Plan is overseen by the Shetland Partnership Board and has 3 thematic groups, including the Environment Partnership, which has a number of sub-groups, including the Biodiversity Sub-group. This group identified, collated and interpreted biodiversity indicator monitoring data that feeds into monitoring of biodiversity outcomes in the Community Plan
- The Environment Partnership prepared the Shetland Environment Strategy, which sets out a framework of aims, objectives, actions, indicators and targets that feed into the Shetland Community Plan to ensure partners manage Shetland's environment in all its aspects to the benefit of present and future society.

- Living Shetland is the Shetland Local Biodiversity Action Plan (LBAP). Last updated in 2004, there are 11 priority species and 4 habitat action plans, together with a comprehensive audit of Shetland's biodiversity. These plans have fed into the biodiversity actions described above under development planning, development management, community planning, LNCS identification and biological recording, providing much of the original baseline data for these.

- The Council's committee report template has been reviewed and now includes a mandatory section which asks the author to set out the "Environmental Implications" of the proposal

Practical Actions

- The Planning Service works closely with Shetland Biological Records Centre (SBRC) which provides the Ranger Service for the Council that requires
    - Survey and monitoring of condition and change affecting LNCS
    - Survey and monitoring of Environmental Partnership indicators
    - Provide baseline data for natural heritage indicators, e.g. for incorporation into SEA reports
    - Survey to identify and assess condition of areas of active blanket bog



- SBRC also provides the following services, which are utilised by the Planning Service during local development planning and development management
    - Review of all planning applications for potential natural heritage impacts
    - Organise, undertake and supervise biological surveys and data collection
    - Manage the database of biological records for Shetland, mostly contributed by a network of Recorders and local and national organisations, but also collected during its coordination of or involvement in other surveys (e.g. Wetland Bird Survey, Breeding Bird Survey)

- A number of bodies in Shetland are pursuing peatland survey and restoration, and the Council included baseline survey work to establish the extent of active blanket bog in Shetland, the work being undertaken as part of the Rangers contract. Shetland Amenity Trust has been leading a programme to restore peatland and SNH funding has enabled the Trust to employ a Peatland Officer during the reporting period (and until next year), to help land managers restore degraded peatland across Shetland. The Peatland Officer has established the Peatland Mire Conservation Working Group which has a wide membership of bodies and individuals interested in peatland, including the Natural Heritage Officer. The Trust has managed a number of peat restoration projects totalling approximately £260,000 in value. Additionally, the Peatland Officer has been closely involved with peatland restoration projects undertaken by the RSPB and Scottish Water, who have received grants of approximately £60,000 for this restoration work.

- Park Lane Community Garden in Lerwick was started by local residents on land owned by the Council following demolition of Council houses; Shetland Islands Council agreed to the community taking over the space and gave the volunteers a lease. With support from Bags of Help – the group received an £8,000 grant at the end of last year – the volunteers created a garden which is both a home for wildlife and a space local people can use and enjoy

- ECO Schools are used to plan action on environmental issues that form the criteria for the Green Flag Award. To earn a Green Flag Award, a school needs to follow the Seven Elements, which ensure that it is pupil-led, linked to the curriculum and involves the whole school and wider community. 32 schools in Shetland are registered with the programme and 6 Green Flags have been awarded

- The Shetland Nature Festival, organised by a partnership led by Shetland Amenity Trust, was held during July in each of the three reporting years and on average
    - 1000 people took part in the festival each year
    - 30 events took place in around 20 locations
    - The Festival was supported by 4 principal partners - SAT, RSPB, Shetland Arts and SNH
    - There have been about 6 additional and one-off partners, such as British Geological Survey, Our Dynamic Earth, Shetland Climbing Club and various individuals

Hawkweed conservation

Since 1999, Shetland Amenity Trust's Woodlands Team and Shetland Biological Records Centre have been partaking in a national Grouped Species Action Plan (SAP) for Shetland's endemic hawkweeds, in partnership with Scottish Natural Heritage (SNH) and Shetland Conservation Volunteers. Shetland botanist the late Walter Scott also contributed advice and material for the success of the project.

Hawkweeds in cultivation by Shetland Amenity Trust

Several species have now been propagated and are faring well; some have also been planted out in the wild. The main aims of the SAP were to establish at least two viable populations in Shetland and to maintain an ex-situ collection of them in cultivation. Seeds of some species have also been deposited with the Millennium Seed Bank at Kew.

The local Team continues to sow seeds and 50 or so plants of each species are kept. Seed is collected from pots after flowering, and sown as "plugs" in trays; some of these have been transplanted into the wild. Any surplus seed is kept refrigerated in seed banks for future use. The Team decides annually which species will be either, chosen to donate seeds to disperse among the native populations, or introduced to the wild – as either seed or germinated plants – at 'new' sites that look suitable for hawkweeds where there are none already.

Seed has now been planted or sown at several carefully chosen stock free sites. The transplants have enjoyed mixed fortunes, some sites doing OK, but some plantings have failed completely - there is no obvious reason why; perhaps they have very strict habitat requirements that are not being matched, or it may be more complex than that.

4. Partnership working and biodiversity communications

The Council works with a range of partners across a number of areas of activity to further the conservation of biodiversity, for example in its development planning and development management services.

The Council is in the process of reviewing its partnership arrangements to help improve how it works to meet its statutory biodiversity duties, partly in response to the current review of the Shetland Partnership Plan (Local Outcomes Improvement Plan for Shetland 2018 to 2028). In Shetland there is a relatively small community involved in biodiversity partnership working that, over the past 2 decades has evolved as perceived priorities have changed. The main current partnership is the Environment Partnership, which is one of 3 themed groups reporting to the Community Planning Partnership (Shetland Partnership).

Initial biodiversity planning in the current sense began with the establishment of a Steering Group to undertake a biodiversity audit and establish the Shetland Biological Records Centre (SBRC), which has now been operating under the auspices of Shetland Amenity Trust since 1998. With the move towards Local Biodiversity Action Planning, partners established an LBAP Steering Group and, later, Partnership, and the previous work formed an essential element of the baseline data for establishment of priorities and carrying out of necessary research in the preparation of action plans; these plans continue to guide monitoring and action to date. However, the LBAP Partnership hasn't met as such for a number of years because most effort aimed at furthering the conservation of biodiversity is now carried out via statutory plans (such as the Local Development Plan (LDP) and Community Plan). In addition biodiversity monitoring, which enables the preparation of up to date baseline data to assess impact through SEA and EIA is, in large part, coordinated by the SBRC and reported via the Environment Partnership. The SBRC collects, collates and curates a substantial number of very varied datasets from a very wide range of sources and partners and has formal agreements with Shetland Charitable Trust and contracts with the Council to enable it to do so on behalf of the Council and the community generally.

Current partnerships that are furthering the conservation of biodiversity are:

Community Planning Environment Partnership - undertaking some of the functions of the LBAP Steering Group, including establishing priorities and coordinating the reporting of biodiversity monitoring data. The Environment Partnership's purposes are to

- Combine expertise and resources to deliver environmental benefits to Shetland in a more efficient and holistic way.
- Produce a Shetland Environment Strategy, signed-off by the Shetland Partnership Board.
- Report annually on Environment Strategy targets.
- Lead on the environment 'outcomes' in the Shetland Community Plan
- Actively encourage other Community Planning partners to deliver environmental outcomes and targets held within the Community Plan and the Single Outcome Agreement

The Council has specific reporting roles in relation to data within its remit and contributes to the ongoing review and development of environmental strategy, policy and appropriate indicators and monitoring.

Biodiversity Subgroup - under the Environment Partnership identifies, collates and interprets biodiversity indicator monitoring data that feed into monitoring the biodiversity outcomes in the Community Plan. The Council has specific reporting roles in relation to data within its remit and contributes to the ongoing review and development of appropriate biodiversity indicators and monitoring.

LNCS Steering Group - proposed all the current Local Nature Conservation Sites that have been adopted as Supplementary Guidance as part of the 2014 Shetland LDP; coordinates site monitoring and review as well as review of possible new sites. The Council leads this group such that the necessary survey, monitoring and reporting is completed. The Council also prepared and adopted the formal supplementary guidance to the Local Development Plan and is responsible for keeping that under review.

Shetland Mire Conservation Group - which aims to actively encourage mire (or blanket bog) conservation in Shetland and promote the value of blanket bog in terms of ecosystem services (e.g. regulating water flow, purifying water, carbon storage, carbon sequestration etc.) and to biodiversity as part of wider efforts towards sustainable development. The Council contributes to this work as a member of the Group and also by including the carrying out of surveys to identify and assess condition of areas of active blanket bog under the Rangers Service contract.

Rangers Service - the Council contracts with Shetland Amenity Trust to provide a Rangers Service that undertakes biodiversity action, monitoring and educational work as well as outdoors access work on its behalf.

Shetland Biological Records Centre maintains and provides access to biodiversity data and advice to the Planning Service in its work to further the conservation of biodiversity, through its Planning Act and other functions and across the services it provides. This work is part of the core funded work undertaken by Shetland Amenity Trust with the aid of an annual grant from Shetland Charitable Trust.

The Council's Natural Heritage Officer attends National Biodiversity Network meetings in spring and autumn.

Shetland Nature Festival is one of the main ways that conservation of biodiversity is communicated, to Shetland residents and visitors. This is an important partnership event that has now been running annually for 10 years. The Council has contributed resources and staffing during the period of this report.

The Council has contributed biodiversity news to the local news media and to social media feeds when appropriate and occasionally contributes to (e.g.) a quarterly farming and crofting feature in the local press.

Shetland Biological Records Centre has organised a number of training courses during the period of this report and these vary from 1-day courses aimed at the

beginner wildlife recorder and the general public through to longer, more specialist recording courses, such as seaweeds, bryophytes, fungi and, annually for the period of this report, a botanical refresher and recording week. All these courses communicate important messages that raise awareness about biodiversity conservation to their respective audiences and the Council has enabled the participation of relevant staff on a number of these courses.

The Natural Heritage Officer (NHO) has arranged, coordinated or delivered natural heritage training for Planning Service staff on a range of topics including European Protected Species, Natura Sites, SEA and HRA. Additionally, the NHO has attended specialised training on Wild flower ID Recording, Lagoons, Achieving Net Gain Biodiversity Outcomes from Development and Seabird island rodent biosecurity

The Council's website contains pages on natural heritage that contain information and links about designated sites, including Local Nature Conservation Sites and Tree Preservation Orders and also on Living Shetland, the Local Biodiversity Action Planning process for Shetland. Additionally, the LNCS and Natural Heritage (draft) SGs; and the Living Shetland LBAP plans can be viewed and downloaded from there.

The Council contributed a page to the Scottish Biodiversity Network publication "20 Years of Biodiversity Partnerships" in October 2016, with a full account of the work to conserve endemic Hawkweeds in the Isles that has been ongoing since the early 2000s. This publication was launched at the Scottish Parliament by Mark Ruskell MSP and attended by Roseanna Cunningham MSP Cabinet Secretary for Environment, Climate Change and Land Reform. This was an important event that raised the profile of biodiversity conservation at the Parliament and also throughout each of the 22 Council areas whose partnerships contributed to the publication, including Shetland.

5 Biodiversity highlights and challenges.

The main biodiversity conservation highlights over the reporting period are:

- Supplementary Guidance Local Nature Conservation Sites (LNCS), which the Council adopted in 2015 that identified Shetland's best local sites for nature with the aim to provide further information and maps about the sites' interests to ensure that development takes into account the important and sensitive features of these sites and, where appropriate, protect those interests from harmful development
- Biodiversity Monitoring - during the reporting period the Biodiversity Subgroup (under the Environment Partnership) finalised its process in relation to monitoring and reporting of biodiversity indicators such that clear evidence across a range of coordinated and representative datasets is now being collated in a methodical way. This has already proved hugely valuable baseline data as SEA reports have been prepared but will grow in importance for biodiversity planning into the future

Future challenges
The main challenges in the next three years will be the continued pressure on resources across all services and any changes to the regulatory framework currently in place for the natural environment, perhaps arising from Brexit but also from other sources. Other challenges will be to:

Update the existing biodiversity audit
Review the existing series of LBAP plans and consider how best to update this process
Devise protocols, procedures and taking action to deal with declines, deterioration in quality and secure improvements and outcomes for LNCS, protected species and habitats
Seek improved outcomes in terms of furthering the conservation of biodiversity in all that the Council does
Responding to introduced, non-native species may well become a greater challenge as the environment warms



6 Monitoring

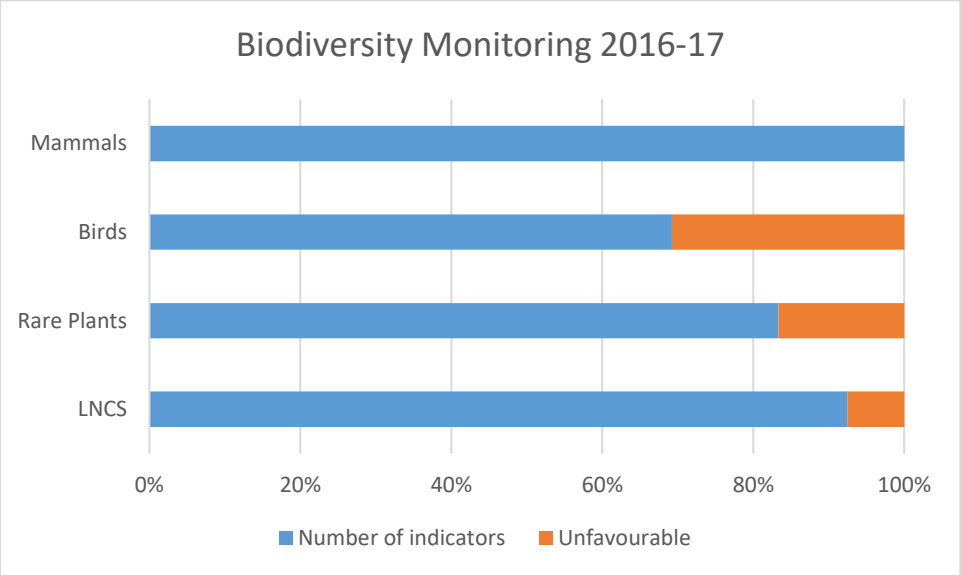
The majority of biodiversity monitoring undertaken on behalf of the Council is carried out by Shetland Biological Records Centre (SBRC), where a wide range of biodiversity data for Shetland is received from very many sources and curated on behalf of Shetland. Specific biodiversity monitoring is undertaken under contract to the Council but the much wider range of data held is called on when required to input to, for example, development planning or development management activity. The SBRC also provides training in biological identification and recording skills to the local community, which also contributes to the records collected.

Local Nature Conservation Sites. While every effort is taken to protect these sites, these designations are not a barrier to development and impacts can occur. The Council has now established a monitoring programme for these sites that includes monitoring survey visits on a rolling basis, with some sites being visited more frequently than others, depending upon sensitivity, perceived likelihood of change and other specific insights about the sites. For example, some sites are to be visited annually, whilst others may only need to be visited every 5 years. 2017/18 is the first year of the monitoring programme and the survey data is currently being collected and analysed. These data will then be reported back to the LNCS Steering Group for consideration of any recommendations and/ or actions, though no procedures or resources are currently available to undertake any follow up actions that may be necessary. They also will form the basis for SEA/ EIA baseline data updates and will feed in to Local Development Plan monitoring process to measure the effectiveness of LDP policies.

Environmental Strategy Monitoring. A comprehensive set of indicators covering a wide range of fauna and flora, as well as some habitat (mainly peatland) are mostly monitored by the Rangers Service and reported on to the Environment Partnership (EP) under the Community Plan. As part of this reporting there are also indicators on input and outcomes in relation to the development management process; area of land under biodiversity management, especially in relation to agriculture and Water Framework targets; activity in relation to introduced non-native species (INNS); and community participation on biological recording. Many of these datasets were chosen in response to the Environmental Strategy (ES) simply because monitoring was already being undertaken and has been taking place for a number of years - in most cases, datasets were not specifically chosen, because there are no resources available to do so. These data are reported back to the EP for consideration of any recommendations and/ or actions, though no procedures or resources are currently available to undertake any follow up actions that may be necessary. They also will feed into SEA/ EIA baseline data updates and support the Community Plan monitoring process to measure progress towards objectives.

Other monitoring work. In addition to the monitoring described above, many species monitoring activities have been developed by other organisations and bodies; examples include Wetland Bird Survey (WeBS) or the Breeding Bird Survey and work undertaken by voluntary and other organisations. Much of these data are deposited with the SBRC which can use them in the preparation of monitoring data and reports for the ES and LNCS

Monitoring Outcomes. For LNCS, the majority of sites are reported as having favourable status, however, the most recent monitoring report (which includes monitoring data up to the 2016-17 field season) shows that 4 sites have unfavourable status (8%) while 12 out of the 60 species of rare plants monitored also have unfavourable status (20%). For birds 12 out of 27 of the monitored species have unfavourable status (44%). For mammals, the 3 species monitored are reported as having favourable status



Trends. The only datasets that have been monitored long enough to show trends are in relation to birds and the 3 mammal species monitored. There are well known significant adverse trends in relation to a number of seabirds, waders and songbirds; possible causes often relate to climate change and pressure from human activity. In relation to mammals, populations of both species of seal and of otters are currently stable.

7. Contribution to Scottish Biodiversity Strategy 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	✓	Peatland restoration at 7 sites
(1.2) Use assessments of ecosystem health at a catchment level to determine what needs to be done	✓	LNCS and peatland habitat monitoring
(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	N/A	N/A
(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	Partial	Land use plans and decisions are not based on an understanding of ecosystems do not take full account of land use impacts on ecosystems services - though natural heritage information is taken into account in the planning process, especially on designated sites or where protected species occur.
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	✓	LNCS Outdoors Access/ Core Paths Shetland Nature Festival SBRC courses Rangers Service Environment Partnership (and Access and Amenity subgroup) promotes access to nature However, focus needed on disadvantaged groups
(3.2) Support local authorities and communities to improve local environments and enhance biodiversity using green space and green networks,	✓	Community gardens Access improvements Eco Schools

allowing nature to flourish and so enhancing the quality of life for people who live there		
(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	✓	The Environment Partnership Access and Amenity subgroup has been promoting this among Community Planning partners
(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	✓	Eco Schools Incorporation of biodiversity into new Anderson High School development
(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	✓	Biodiversity conservation addressed through SEA for Plans, Policies and Programmes Consultation responses on such plans consider and address potential biodiversity impacts Work with other services, such as Roads Service to incorporate biodiversity action and mitigate impacts Biodiversity impacts considered during development management process wi8th adverse impacts mitigated or reduced where possible
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	✓	Public access for education and recreation to LNCS is encouraged wherever practicable, subject to appropriate land management or biodiversity considerations
(4.3) Integrate protected areas policy with action for wider habitats to combat fragmentation and restore key habitats	✓	LDP policy NH3 requires development to be considered against the Council's obligation to further the conservation of biodiversity and the ecosystem services it delivers, this takes account of the wider environment, as well as designated sites and protected species
(4.5) Involve many more people than at present in this work and improve	✓	Shetland Nature Festival SBRC courses

understanding of the poorly known elements of nature		Rangers Service The public is encouraged to submit biological records and such data are also gathered from social media
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	Partial	LDP policy NH3 requires development to be considered against the Council's obligation to further the conservation of biodiversity and the ecosystem services it delivers, this takes account of the wider environment, as well as designated sites and protected species. However, biodiversity and ecosystem services considerations are seldom more than one of numerous considerations in land use planning decisions
(5.2) Ensure that measures taken forward under the Common Agricultural Policy encourage land managers to develop and retain the diversity of wildlife habitats and landscape features	✓ (though these are limited by prescription)	Natural Heritage Officer works with partners to achieve biodiversity benefits in land management where possible. Examples include survey work as a pre-cursor to (e.g.) peatland restoration and providing information to other partners about sites and survey data collected by the Council.
(5.3) Support 'High Nature Value' farming and forestry	✓	Knowledge transfer and guidance when possible
(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	Partial	Suite of protected areas identified and monitoring commenced; next stage will be to identify actions necessary to bring them into favourable condition and identify the actors and resources required
(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	✓	Led by SEPA Supported by Strategic Flood Risk Assessment
(5.6) Restore and extend natural habitats as a means of building	✓	Peatland restoration at 7 sites

reserves of carbon and to help mitigate climate change		
(5.7) Provide clear advice to land and water managers on best practice	✓	Through the LDP, Supplementary Guidance and during the development management process
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	✓	Shetland Islands Marine Spatial Plan Aquaculture Supplementary Guidance Coastal Development Management process Biosecurity Plan for the Shetland Islands" and publication of various information on Introduced Non-Native Species.

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P8 - All SIC, except image 4, Shetland Amenity Trust
P9 - All Austin Taylor
P10 - SIC, Shetland Amenity Trust, Shetland Amenity Trust
P11 1st row Austin Taylor (1& 2), SIC (3, 4 and 5)
P11 2nd row, all SIC
P12 - Austin Taylor, Sue White, Shetland Biological Records Centre
P13 - SIC
PP16, 17, 19 and 23 - All Austin Taylor