

BIODIVERSITY DUTY REPORT

For Shetland Islands Council
2021-2023



SHETLAND
ISLANDS COUNCIL

Biodiversity Duty Report for Shetland Islands Council

2021-2023



December 2023

Contact:

Natural Heritage Officer
Planning Service
Development Services
Shetland Islands Council
8 North Ness Business Park
Lerwick, Shetland
ZE1 0LZ

Tel: +44 (01595) 744293
Email: natural.heritage@shetland.gov.uk

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Contents

1. Introduction	2
2. Actions to Protect and Enhance Biodiversity	5
3. Mainstreaming Biodiversity	7
4. Nature-based Solutions, Climate Change and Biodiversity	8
5. Public Engagement and Workforce Development	10
6. Research and Monitoring	13
7. Biodiversity Highlights and Challenges	15

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 Shetland Islands Council (“the Council”) has complied with the biodiversity duty for the period 1 January 2021 to 31 December 2023. The format for this year accords with the Scottish Government’s new template for “Level One Organisations”, which are public bodies that own or manage land, regulate land use, or have responsibilities linked to biodiversity and include the Council.
- 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, and a sliver of deep ocean crust and a host of unusual minerals have 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 gently scoured 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 Geopark Network.
- 1.7 Shetland’s biodiversity is hugely significant, locally, nationally and internationally and the following summarises some key biodiversity interests:

- Shetland is important for a range of important habitats; many of these are integral to the designated sites below
- The most extensive important terrestrial habitat is blanket bog and very large areas of this are priority habitat, as defined in the EU Habitats Directive (essentially this means that it is actively forming peat). The Scottish Government's Carbon and Peatland 2016 map predicts the presence of such peatland on a substantial area of Shetland, though only a small fraction of this is formally designated
- Terrestrial designated sites (Note that a number of these overlap, for example, all terrestrial SACs and SPAs are already designated SSSIs)
 - 78 Sites of Special Scientific Interest (SSSI) (this includes 40 that include earth sciences interests and about 30 that include marine biological features; some SSSIs have a combination of interest types)
 - 12 Special Areas of Conservation (SAC)
 - 12 Special Protection Areas (SPA) (5 of these have marine extensions)
 - 1 Ramsar Site
 - 2 National Nature Reserves
- Protected species as listed under the Wildlife and Countryside Act 1981 (as amended by the Nature Conservation (Scotland) Act 2004) these include:
 - 9 regularly breeding birds listed under Schedule 1
 - 3 other animals listed under Schedule 5
 - Shetland waters are frequently visited by many species of dolphins, porpoises, whales, and basking sharks, all of which are also listed under Schedule 5
 - 4 plants listed under Schedule 8
- 18 species of seabirds breed in Shetland in nationally important numbers (i.e., 1% or more of the UK population)
- High densities of breeding waders breed, including 10 species in nationally important numbers - 1% or more of the UK population
- Shetland supports over a third of the British breeding population of red-throated diver
- In terms of wintering sea ducks, divers and grebes - 7 species winter in Shetland in nationally important numbers, 1% or more of the UK wintering population
- As a consequence of Shetland being an archipelago, endemism (term to describe species only found in a single defined geographic location) is a notable feature of these islands' biodiversity. These are 3 endemic bird taxa (2 wrens and a starling), 22 endemic plant taxa and 1 sub-species; and several endemic invertebrates
- The diversity of marine biotopes found around the Shetland Islands provides a wealth of habitats for marine life, including species and features considered to be of international, national and local importance. These habitats, species and features support a range of ecosystem services.

Some key habitats include maerl, horse mussel beds and extensive kelp forest along the coastline

- Marine designated sites within Shetland inshore waters are
 - 1 SAC (partly within Shetland Inshore Waters)
 - 3 SPAs (note that one of these is classed as offshore, but is partly within Shetland inshore waters)
 - 5 marine extensions to terrestrial SPAs
 - 2 Nature Conservation Marine Protected Areas (MPAs)
 - 1 Demonstration and Research Marine Protected Area
 - 49 Seal Haul Out Sites (including 2 sites included within SACs)
 - Within the Shetland marine region 50 priority marine features (species or habitats) are known to occur. While some of these are the protected features of designated sites, they are also found in other (non-designated) areas across Shetland
 - There are a number of non-statutory natural heritage sites, including
 - 4 Marine Consultation Areas
 - 53 Local Nature Conservation Sites (LNCS); this list includes:
 - 9 identified for geology
 - 4 that have been surveyed and recorded as important but have not yet been adopted
 - Shetland is a UNESCO Global Geopark
- 1.8 The Council 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 further the conservation of biodiversity.
- 1.9 The Council is made up of 23 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.
- 1.10 Much of the land owned by the Council is tenanted croft land, so the Council has a very limited role in its management. Other land includes land owned or managed as amenity land; for example, managed for recreation, leisure, housing, and cemeteries etc. and roadside verges. The Council has committed to develop a land management strategy with biodiversity enhancement as one of the over-arching aims and outcomes of this are anticipated during the next reporting period.
- 1.11 The Council carries out its duties under the statutory planning system to regulate land use and development. Section 25 of the Town and Country Planning (Scotland) Act 1997 (as amended) states that: "Where, in making any determination under the Planning Acts, regard is to be had to the development plan, the determination is, unless material considerations

indicate otherwise to be made in accordance with that plan.” The Shetland Local Development Plan (SLDP, 2014) and National Planning Framework (NPF4, 2023) are the development plan.

- 1.12 The Council (and its partners, where appropriate) provides a range of information about biodiversity across many of its functions, which are discussed at section 5, below.
- 1.13 All Councils have significant environmental impacts from their operations and, as an islands council, the Council has a number of additional functions, such as the operation of a number of ports, harbours, and an airport and several airstrips. The Council also has responsibility for ferry services and operates a fleet of ferries, which has a significant environmental impact, especially in terms of its carbon emissions, and that sets the Council apart from most other councils in Scotland.
- 1.14 This report has been compiled by the Planning Service, on behalf of the Council, and with input from a number of other services.

2. Actions to Protect and Enhance Biodiversity

- 2.1 The Planning Service works closely with the Shetland Biological Records Centre (funded by Shetland Charitable Trust) and supports it to engage in development planning and development management to achieve better outcomes for biodiversity.
- 2.2 New biodiversity audit commenced, this will replace/ update the audit completed in 2000.
- 2.3 The Council, through several services, is a member of the Shetland Peatland Partnership - organisations involved in the partnership agree that Shetland’s degraded peatlands should be put on the road to recovery. We all understand there is a need to restore the unique habitats of our blanket bogs, reduce the carbon emissions from degraded sites, and increase the resilience and quality of adjacent land and infrastructure.
- 2.4 The Planning Service has sought to achieve biodiversity enhancement as part of the development management process over the reporting period. It is the developer’s responsibility to comply with the consents issued to them and the Council has no system of routine monitoring of compliance with conditions or reporting thereon; preferring to be reactive in case of complaint or where it is alerted to matters of non-compliance. Since NPF4 was adopted in February 2023, there is now clear policy to protect, conserve, restore and enhance biodiversity, which the Council implements through the development management process. Where appropriate, requirements to monitor such matters is now required.
- 2.5 The Education & Community Service provides school children in Secondary 2 with the opportunity to complete the John Muir Award, an Environmental Award Scheme, with the Council’s Outdoor Education Service delivering four

different outdoor education days, which meet the expedition aspect of the award to explore and discover wild places i.e. Ocean Wild, Rock Wild, Hill Wild and Woodland Wild Days

- 2.6 Roads Service has
 - Installed “wildlife reflectors” on the roadside adjacent to two lochs in an attempt to prevent otters from crossing the road as vehicles approach.
 - Replaced some conventional street lighting lanterns with LED equivalents; these are “down lighter” type and are also dimmed after midnight, both measures aimed at reducing light pollution.
- 2.7 The Council is fully compliant with both the Port Marine Safety Code and International Safety Management Code. A fundamental principle of each of these codes is the protection of the environment.
- 2.8 The Council partially funds the activities of the Sullom Voe Oil Terminal Environmental Group ([SOTEAG | Shetland Oil Terminal Environmental Advisory Group](#)). SOTEAG was established in 1977, and continues to develop and manage comprehensive scientific monitoring programmes that ensure the health of Shetland’s marine and coastal regions. Since 1974, the Sullom Voe Terminal has been the focus of what it believes to be the most intensive monitoring programme of any industrial installation in the UK, Europe or elsewhere.
- 2.9 The Council is responsible for monitoring and responding to pollution in all of the ports and harbours under its jurisdiction, holding emergency plans and conducting regular response exercises.
- 2.10 Harbour works and dredging campaigns are conducted in full compliance with marine planning and consultation regulations. NatureScot is a statutory consultee in this process.
- 2.11 The Council partially funds KIMO (an international association of 150+ coastal local authorities) ([Welcome to KIMO - healthy seas, thriving communities \(kimointernational.org\)](#)) supporting its Fishing for Litter Campaign with facilities for receiving fishing gear waste.
- 2.12 Schools throughout Shetland participated in the Queen’s Platinum Jubilee/ The Queen’s Green Canopy in 2022 and Shetland Amenity Trust helped them plant 70 trees across Shetland’s school estate.
- 2.13 Bells Brae primary school in Lerwick was named as a finalist in the national Helping It Happen Awards 2021. Pupils from the school planted around 70 trees at Holmsgarth Road in May, to tie in with a school project ‘Living Things’. Most of the species planted are native varieties that thrive in the Shetland climate, creating an attractive wooded habitat on the town’s outskirts, which will encourage pollinating bees and insects.
- 2.14 The Council is a partner in a successful Round 1 Development bid to the Facility for Investment Ready Nature in Scotland (FIRNS). The FIRNS pilot

project, led by Forest Carbon Ltd, will take place on the Shetland Islands and the Isle of Lewis, in consultation with Ollaberry Collafirth and Crooksetter Common Grazings, and with Barvas Estate Trust. It will demonstrate how to develop, to an investment ready stage, a peatland restoration project on land subject to common grazing tenure. It will develop a financial model for each pilot site, community benefit models, and governance and legal arrangements that aim to balance the interests of landowners, common graziers and other community members. The aim is to overcome real and perceived barriers to peatland restoration.

3. Mainstreaming Biodiversity

- 3.1 The Council signed the Edinburgh Declaration in 2022, acknowledging the concerns about the significant implications that the loss of biodiversity and climate change has on our livelihood and communities. The impacts on our environment, infrastructure, economy, health and wellbeing, and our enjoyment of nature are already visible.
- 3.2 The Planning and Roads Services have established quarterly meetings of a Biodiversity Liaison Group attended by the Planning Service, Roads Service, Shetland Amenity Trust, NatureScot etc. to discuss possible improvements that could be made to Roads operations that would benefit biodiversity.
- 3.3 The Viking wind farm is currently being developed in Shetland, with 103, 155m turbines and associated infrastructure. The Council recommended that there be an environmental advisory group to monitor the environmental management activities associated with the development during the stages of construction, site rehabilitation, commissioning, and operation and decommissioning. The Planning Service is a member of the Shetland Wind Farm Environmental Advisory Group (SWEAG), which meets biannually to consider and act on environmental monitoring reports, with particular focus on the Habitat Management Plan (HMP) and the associated landscape and habitat restoration. The HMP is restoring significant areas of blanket bog to benefit biodiversity and reduce carbon emissions. It also has undertaken works to benefit red-throated diver and merlin, which are important breeding birds in and around the development.
- 3.4 Some aspects of the Council's estate management have been modified to take account of, or encourage, biodiversity, as follows:
 - Some large areas of grass, which were previously cut during summer months are now left to grow naturally, thus enhancing biodiversity. Some footpaths are now only cut along a narrow edge strip, leaving the extended area that was previously cut on a regular cycle, wild for birds, insects and wildlife.
 - In Lerwick's Jubilee Flower Park there is no use of chemicals to eradicate weeds, these are manually removed by hand. Walls and fences are used for growing a wide variety of climbing plants, which will provide shelter and a food source for invertebrates and birds.

- In the Jubilee Flower Park Council staff produce their own composts, consisting of locally collected bio-degradable materials that are used to fertilise the flowerbeds within the park.
 - A former hard surface play area in Stouts Court, Lerwick has been remodelled as a seating area with raised flower beds to encourage more people, birds and insects to visit this underutilised area.
- 3.5 Marine & Air Operations fully engage with community and industry stakeholders for the development and enhancement of infrastructure. The Sullom Voe & Scalloway Masterplans are evidence of this. The port of Sullom Voe is a major deep water harbour that is owned and operated as an oil and gas terminal by Shetland Islands Council as Harbour Authority. In recent years tanker movements to Sullom Voe Terminal have reduced and the Council has prepared a masterplan to examine the potential for a range of future developments, including but not limited to, aquaculture, marine renewables and seaweed farming. The plan intends that natural heritage designations, and the abundance and diversity of wildlife, be conserved through the protection of designated sites, protected features and wildlife species, and SSMO Closed Areas (areas closed to fishing for shellfish).
- 3.6 The Council is responsible for monitoring and responding to pollution in all of the ports and harbours under its jurisdiction, holding emergency plans and conducting regular response exercises.

4. Nature-based Solutions, Climate Change and Biodiversity

- 4.1 The Shetland Local Development Plan was completed before this reporting period, however it has a number of relevant policies that implement the “Vision for Shetland” that seeks to:
- Enhance existing communities throughout Shetland by encouraging sustainable economic development to create strong, healthy, vibrant communities where diversity is recognised and celebrated, ensuring they are attractive and inclusive places to live
 - Promote the efficient and sustainable use of natural resources and material assets such as land, water, soil, buildings and infrastructure whilst minimising waste
 - Further the conservation of biodiversity and geodiversity throughout Shetland, including landscapes and seascapes
 - Encourage new development of good quality that is environmentally sensitive, accessible to all, utilises sustainable design techniques and low carbon or renewable energy technologies
 - Ensuring policies reflect the Council’s commitment to the Climate Change (Scotland) Act 2009 through encouraging measures to maintain good air quality, reduce carbon emissions and mitigate or anticipate the effects of global climate change

- 4.2 The Council adopted the Shetland Islands Council Climate Change Strategy and associated Action Plan on 13 December 2023. The purpose of the strategy is mitigation and adaptation, encompassed by the need for a just transition, which is built around ‘enablers’ and ‘themes’. The themes are energy, buildings, transport, resources & waste, business & industry, and nature-based solutions. The achievement during the reporting period is the adoption of the plan, following an extensive period of consultation. We expect that there will have been significant benefits arising from its implementation during the next reporting period, in terms of direct and indirect positive effects for biodiversity through, e.g. changing operational activity; influencing the behaviour of others; and implementing nature-based solutions. A key aim of the Strategy is to use nature-based solutions to protect, restore, enhance and manage natural or semi-natural habitats and ecosystems across Shetland, both terrestrial and aquatic, to reduce carbon emissions and protect biodiversity.
- 4.3 Shetland Islands Council does not currently have the following strategies:
- Open Space Strategy;
 - Forest & Woodland Strategy;
 - Green Infrastructure Strategy;
 - Pollinator Strategy;
 - Soil management strategy;
 - Locally-implemented Nature Network Strategy
- 4.4 The Council, through its Port Operations, requires relevant vessels comply with International Convention for the Control & Management of Ship’s Ballast Water & Sediments (BWM), which is aimed at minimising the spread and threat to the marine ecosystems of invasive aquatic species.
- 4.5 The Council is a founding partner of the ORION Clean Energy Project (<https://www.orioncleanenergy.com/>), which aims to be a catalyst for change, encouraging collaboration to help generate clean, affordable power, help eradicate fuel poverty, provide job opportunities throughout the isles’ supply chain, while protecting the environment. It aims to surpass net-zero goals and achieve carbon-negative emissions in Shetland in line with Scottish Government policy
- 4.6 The Council is a partner for the Shetland Islands Regional Marine Plan (SIRMP) (<http://www.shetland.uhi.ac.uk/research/marine-spatial-planning/shetland-islands-regional-marine-plan/>), which envisions “for Shetland to have clean, healthy, safe, productive and diverse seas, managed to meet the long-term needs of nature and the local people.” It aims to “ensure that use of the marine and coastal environment of Shetland is sustainable.” (It states that “sustainable use should not lead to loss of biodiversity or ecological balance, or reduce the availability of natural resources for future generations. This means maintaining and enhancing marine wildlife, habitats and ecosystems to enable dynamic economic activity supporting a prosperous community.”) That plan was approved by the Council for submission to Scottish Ministers in May 2021, but still awaits their approval to adopt it.

- 4.7 The Council, through a contractual arrangement with Shetland Amenity Trust, undertakes limited monitoring of some locally-determined biodiversity indicators, including the condition of LNCS; numbers (etc.) of selected Rare Plants, Seabirds, Waders, Songbirds; and some very restricted mammal survey data. The results of the monitoring show that 50% of indicators are in unfavourable condition. Some of this decline will be related to climate change, but terrestrial and marine use, change and exploitation are also factors. These data can be used to inform the development and implementation of the Council's climate change strategy, as well as the other strategies and plans listed above.
- 4.8 It's difficult to be specific about the main climate change related challenges for biodiversity in Shetland at all, let alone over the next three years, but the following threats currently challenge the condition and integrity of biodiversity across the archipelago:
- Habitat Loss and Fragmentation - often related to development and use of land and water but increasingly also influenced by e.g. warming seas and changes in weather patterns, particularly where populations have already become fragile or vulnerable due to displacement, other anthropological factors and disease
 - Species Range Shifts - these are likely to affect both terrestrial and marine species and Shetland is particularly vulnerable in this regard, given its geographic location; that it has a number of endemic species; and that it is often close to either the southerly or northerly range limit for a number of species
 - Phenological changes (timing of events, such as seasons) and changes to weather patterns and intensity of weather events
 - Invasive species and disease
- 4.9 Both SOTEAG & SIRMP monitor biodiversity & biosecurity in the marine and foreshore areas and require continued funding to support their operations.
- 4.10 For greening vessels, there is currently no front runner in the form of a renewable fuel source in Shetland that can be applied to the Council's marine fleet. Propulsion systems for existing and future vessels are in the prototype phase with costs extremely high compared with like-for-like diesel replacements.

5. Public Engagement and Workforce Development

- 5.1 Public Engagement The Council, through a contractual arrangement with Shetland Amenity Trust, provides a countryside ranger service to the wider public to:
- Promote responsible outdoors access and inspect, maintain and improve defined routes
 - Promote awareness of, and care for, Shetland's natural heritage

- Monitor various biodiversity indicators
 - Contribute to the assessment and monitoring of LNCS for the Local Development Plan
 - Submit monthly and annual monitoring, performance and financial reports
- 5.2 The Council is fully committed to working with SOTEAG, SOWN (Shetland Oiled Wildlife Network) SIRMP & ORION in respect of biodiversity conservation and monitoring, as described above. It is also a full partner in SWEAG though, at this time, that body's geographic coverage is limited to the Viking wind farm development area.
- 5.3 The Shetland Library service provides information and signposting on biodiversity and links with partners for events and promotions, for example:
- Non-fiction books on biodiversity and nature for adults and children, in public and school libraries.
 - The introduction of Nature Backpacks for children to borrow, in partnership with RSPB - information leaflets from the Shetland Community Wildlife Group are enclosed.
 - Links with Shetland Amenity Trust which has donated books to us to distribute to schools (e.g. sharks, insects and birds).
 - Author talks and events e.g. Sally Huband book launch shared information and leaflets on the Shark Trust.
 - Cetacean conservation event with Shetland Community Wildlife Group.
 - Book Week Scotland 2021 nature themed events - author talks and family learning night.
 - Annual nature display includes leaflets on bumblebee conservation.
 - Signposting and information about submitting species records to the Scottish Biological Records Centre (SBRC)
- 5.4 The Sport and Leisure Service along with partners are promoting a wide range of cycling/ walking events and initiatives across Shetland that have a positive impact on encouraging active travel and reducing carbon emissions. They also help to improve mental and physical health and wellbeing. These initiative and events include Bikeability, The Summer Cycle, Health Walks and Peerie Wanders, for example:
- School children across Shetland in Secondary 2 are given the opportunity to complete the John Muir Award, an Environmental Award Scheme, with the Council's Outdoor Education Service delivering four different outdoor education days, which meet the expedition aspect of the award to explore and discover wild places i.e. Ocean Wild, Rock Wild, Hill Wild and Woodland Wild Days.
 - At the Gilbertson Park a cycling and walking path has recently been developed, which is encouraging active travel in Lerwick and is suitable for families to use and visit, encouraging the watching of wildlife, photography, improving health and enjoyment of the outdoors while promoting a greater understanding of wildlife and the environment.

- 5.5 The Council is a key partner of Shetland Amenity Trust (SAT) and has formal partnership agreements and provides funding, notably (in this context) in terms of the Shetland Ranger Service and the Shetland Museum and Archives, of which both have strong educational objectives. SAT delivered a range of educational events and activities, including:
- Workshops, entitled “Is Shetland Really Treeless?” These focussed on Shetland’s relict trees, climate change and biodiversity loss, were delivered to a total of 200 high school (secondary two) students in 10 separate sessions. These events were extremely well received by both teachers and students, and new contact by other interested schools has been a result.
 - A series of four educational workshops with a local primary school, at Shetland Crofting Museum. The workshops focussed on the links between cultural heritage (crofting) and Shetland’s biodiversity, with a strong emphasis on biodiversity loss in Shetland over the last 5,000 years, biodiversity enhancement, and the importance to support native species for climate change mitigation.
 - 10 public education events showcasing peatland restoration work and promoting the importance of blanket bog, as a key carbon sink, in the fight against climate change. These events also highlight the risks of peat slides in Shetland, due to changes in the sensitive hydrology of this habitat through, for example, grazing and adverse weather events.
 - 3 agricultural shows around Shetland (these annual events were cancelled in 2021 due to the COVID pandemic). The purpose was to inform the public about the work, and to highlight the importance of native trees, woodland planting and peatland restoration in tackling climate change and biodiversity loss, as well as discussing with local landowners the potential opportunities in these areas.
 - A stand at a Biodiversity Day event, organised by the Council’s Climate Change Team. Promotion of Geopark and discussions on Shetland’s biodiversity, native species, biodiversity loss, volunteering opportunities and woodland creation schemes,
- 5.6 Lectures to local tourist guides and trainee tourist guides on a range of topics, including on climate change and biodiversity loss.
- 5.7 Cullivoe Primary School received its sixth Eco Schools Green Flag Award from environmental charity Keep Scotland Beautiful. The award recognises the school’s commitment to Learning for Sustainability and is an internationally recognised accreditation for excellence in sustainable education.
- 5.8 The Council’s Climate Change Team organised a 2-day climate change festival in June 2023, this followed on from a climate change week, which was held in 2022. The festival included exhibitions featuring, amongst others, organisations working towards nature -based solutions. The workshop also included a workshop led by the RSPB on how to help conserve biodiversity despite the impacts of climate change.

- 5.9 The Council was also one of the partners that organised the first Shetland Conservation Conference a collaboration between RSPB Scotland, NatureScot, Shetland Amenity Trust, UHI Shetland and the Council. Held in March this year, it was an opportunity for all bodies involved in nature conservation across Shetland to gather and discuss the broad range of work currently being undertaken. With the aim of generating discussion and collaboration, whilst looking ahead to the issues and challenges of the future. It is hoped that it will drive a closer working relationship between all parties going forward and lead to enhanced delivery for nature conservation efforts in the future.
- 5.10 Shetland schools have collaborated with a local growing group, Transition Turriemfield, to develop a 'Grow Shetland' teaching resource, to help more schools grow food and support pupils' learning, helping the Shetland community to grow more of its own food and lower its carbon footprint.
- 5.11 Workforce development
- Marine & Air Operations Management Team undertake regular counter pollution training with other staff receiving response training.
 - Marine & Air Operation regularly work collaboratively with other organisations to support nature surveys.
- 5.12 Opportunities for staff to take part in practical actions
- The Council participates in annual major counter pollution exercises with Sullom Voe Terminal and undertakes regular emergency exercises across its vessels and port estates.

6. Research and Monitoring

- 6.1 Research activities undertaken by, or participated in by, the Council to help develop understanding and awareness of biodiversity
- The majority of biodiversity monitoring undertaken for the Council is carried out by 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. With the exception of the selected biodiversity monitoring undertaken by SBRC under contract, the Council does not directly undertake active monitoring of biodiversity.
 - LNCS. These sites have no statutory designation but receive protection from development through policies in the SLDP. As such impacts from site management or development carried out under permitted development rights can occur. However, the Natural Heritage Officer provides advice and guidance in the development management process to minimise and avoid adverse impacts. The Council has now established a monitoring

programme for these sites with SBRC 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.

- 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 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 reports for LNCS.
- SOTEAG's undertakes extensive monitoring programmes around Shetland that include aspects of the marine environment and ornithological and these are extensively reviewed before being presented to the Board of Directors of the Sullom Voe Association and issued to reference libraries throughout the UK
- The SIRMP was produced from a sound evidence base as far as information was available when written. Whilst it is still not formally adopted, such data continues to be updated as part of ongoing monitoring and surveillance of the marine environment, including recording findings for introduced non-native invasive species (INNS). Policies in the Plan include appropriate monitoring programmes and require that detailed restoration and maintenance proposals are included for, e.g. development proposals so as to minimise risk of harm to biodiversity

6.2 Follow-up actions or monitoring undertaken to assess the impacts of the actions taken

- Marine & Air Operations undertake regular training, exercise, audit and review
- The LNCS monitoring data are reported back to Council officers for consideration of any recommendations and/ or actions, though it remains the case that no resources are available to undertake any follow up actions that may be necessary. In addition, there is no protection against activity that doesn't require planning consent and the Council may only become aware of adverse impacts after they have taken place.

6.3 Significant trends or areas of concern

- SOTEAG reports that marine environment in the Sullom Voe Harbour Area has remained relatively unchanged by harbour operations.
- A small range of biodiversity features are monitored as part of an ongoing programme commissioned by the Planning Service to support baseline data for Strategic Environmental Assessment and other purposes. In the following paragraph, in relation to species, "favourable" means stable or increasing, whereas "unfavourable" means in decline. In terms of LNCS, these condition assessments refer to whether the site is capable of maintaining the features of key interest, rather than whether the key interests are favourable or not. For example, if the site management was having an adverse impact on the key interest(s) of the site it would be

assessed as being in unfavourable condition. Management that is appropriate to maintain the key interest(s) would be assessed as being in favourable condition, even if the site's key interest(s) were in decline because of factors operating outwith the site.

- 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 2021-22 field season) shows that 6 sites have unfavourable status (13%, up from 4% in the previous report). 8 out of the 60 species of rare plants monitored have unfavourable status (13%, up from 7% in the previous report). For birds 8 out of 27 (29%) of the monitored species have unfavourable status, down from 10 (37%) in the previous report. However, within the birds group, seabirds are recorded as having 6 of 11 (55%) unfavourable. For mammals, otters are reported as favourable, Grey seals as unfavourable; Grey seals were reported as favourable in the previous report.
- 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 are either stable or declining and otter populations are currently stable.

7. Biodiversity Highlights and Challenges

7.1 The Council's main achievements for biodiversity over the reporting period include:

- The Council signed the Edinburgh Declaration, acknowledging the concerns about the significant implications that the loss of biodiversity and climate change has on our livelihood and communities
- Marine & Air Operations has an excellent safety and environmental record and (e.g.) monitoring by SOTEAG continues to report that the marine environment in the Sullom Voe Harbour Area has remained relatively unchanged by harbour operations
- The Council is a main partner of the Shetland Peatland Partnership, which has been established to enable Shetland's degraded peatlands being put on the road to recovery.
- The Planning Service has sought to achieve biodiversity enhancement as part of the development management process over the reporting period and this is now supported by much clearer policy in NPF4
- The Education & Community Service provides school children in Secondary 2 with the opportunity to complete the John Muir Award, an Environmental Award Scheme
- Roads Service has installed "wildlife reflectors" on the roadside adjacent to two lochs in an attempt to prevent otters from crossing the road as vehicles approach

- The Council has adopted the Shetland Islands Council Climate Change Strategy, with a purpose of mitigation and adaptation, encompassed by the need for a just transition

7.2 The Council believes the main challenges over the next three years will be:

- Continued pressure on resources across all services and any changes to the regulatory framework currently in place for the natural environment
- The new Scottish Biodiversity Strategy and associated implementation plan, expected to be implemented during the outlook period
- Implementing NPF4 policy requirements for biodiversity will require significant resources from both developers and the Planning Service
- Shetland has no Local Biodiversity Action Plan (LBAP) or other biodiversity partnership, and so no coordinated programme of biodiversity enhancement - including no specific budget for such action. This has been one of the challenges that have meant that, so far, no Nature Restoration Fund money has been allocated to any nature restoration projects. This lack of coordinated programme means that there are no projects previously identified that could be funded by the NRF and that revenue funding is required to develop projects; this has meant that it has been difficult to meet NRF spending deadlines.
- Continuing to improve levels of understanding and commitment to the Council's obligation to further the conservation of biodiversity in all that the Council does
- Protecting and conserving LNCS (and biodiversity generally in Shetland), in light of the Council not making funding available to review how to achieve its objectives and obligations in this regard
- Responding to declines, deterioration in quality and securing improvements and outcomes for LNCS, protected species and habitats, and biodiversity in general
- Establishing and enabling partnerships for biodiversity conservation and enhancement across Shetland
- Responding to introduced, non-native species, especially as the environment warms
- Improving and extending biodiversity monitoring to ensure that it's more representative of changes in biodiversity across Shetland
- Greening Port and Fleet projects, which are constrained by funding and lack of proven technology; and wide scale industry adoption is not yet assured
- Introduction of nature friendly management of road verges and amenity grassland

7.3 The Council currently is intending to prepare the following strategies, which will benefit biodiversity:

- Open Space Strategy

- Forest & Woodland Strategy (in Shetland called a Tree and Woodland Strategy)
- Locally-implemented Nature Network Strategy

7.4 However, given the resources currently available to the Council it will be challenging to prepare all the following strategies, and there is currently no commitment to do so:

- Green Infrastructure Strategy
- Pollinator Strategy
- Soil management strategy