



MANAGING OUR NATURAL WEALTH

Isle of Man's Biodiversity Strategy 2015-25
Action Plan Mid-Term Audit

Department of Environment, Food and Agriculture

10th August 2020

Foreword

In 2015, Isle of Man's Biodiversity Strategy 2015-2025 was heralded as a compass by which to steer our course towards greater awareness of and support for our natural environment. Its development was initiated following the extension of the Convention on Biological Diversity to the Island in 2012 and is based upon the Aichi Strategic Goals and Biodiversity Targets which are the basis of the Strategic Plan for Biodiversity 2011-2020 adopted by the CBD's Conference of Parties in Japan in 2010.

The Strategy maps out the framework for actions to conserve enhance and cherish our natural environment for the benefit of all the people of the Isle of Man. Much work has taken place since 2015, during this United Nations Decade on Biodiversity 2011-2020, with many of the ambitious actions already achieved and others set to be achieved ahead of the proposed target date. However some actions present a greater challenge and work must continue apace if we are to achieve them all.

This summary, split into the Strategic Objectives, provides a full update on the progress of each of the forty-six individual actions.

All of this work has been made possible through the active participation and cooperation between Government and non-governmental organisations. These partnerships will remain invaluable as we continue to address and implement the actions so that future generations can enjoy the rich and diverse natural environment that we do today.

Manx biodiversity will be valued, conserved, restored and managed sustainably, able to adapt to unavoidable change, provide essential services and contribute to a high quality of life for all, by 2050.

Geoffrey Boot MHK
Minister for Environment, Food and Agriculture

Photograph credits

[Front Cover (left to right): Anders Salesjö – Basking Shark; L Moore – Harebells near Dalby; DEFA – Scarce Crimson and Gold Moth – R Selman; Puss Moth larva – Ian Scott]
[Back Cover: DEFA – Cringle Reservoir]

Managing Our Natural Wealth ~ The Isle of Man's Biodiversity Strategy Action Plan Progress Summary

Rating:

Dark Green = Achieved or on target.

Light Green = Likely to be achieved, on target.

Amber = Likely to be late, but deliverable.

Red = Failed, won't be delivered by target date.

Delivering an effective Strategy:

Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>1. Complete and approve the Draft Strategy in 2015, followed by a Delivery Plan (with tasks and resourcing options) agreed within 6 months of the adoption of the Strategy by Tynwald.</p>	<p>Biodiversity Strategy 2015-25 agreed.</p> <p>Delivery Plan drafted but not finalised, however, many of the detailed strategy actions have nevertheless been taken forward.</p>	<p>The Biodiversity Strategy covers 2015-2025, but the Aichi targets, on which it is based, cover 2010-2020. New international targets are under development so a review of this strategy, and the draft development plan, is expected in the coming year.</p> <p>The resource implications for the delivery of actions need to be determined and possible sources of funding identified.</p>	
<p>2. In 2015 establish a Biodiversity Oversight Group tasked with driving forward and monitoring implementation of the Biodiversity Strategy and Delivery Plan.</p>	<p>A procedure for Biodiversity Action Plans has been agreed. Plans are to be agreed by the Manx Biological Recording Partnership and formalised by the Department of Environment, Food and Agriculture, through the Wildlife Committee. A Biodiversity Oversight Group is not currently in operation and this requires discussion.</p>	<p>Biodiversity Oversight Group needs to be set up. Constitution to be agreed and members to be appointed. Preliminary work has begun on this.</p>	
<p>3. Regularly review and revise both Strategy and Delivery Plan to take</p>	<p>Audit of status provided here.</p>		

forward the work up to and beyond 2025.			
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Government leading by example:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>4. From 2015 Government will lead the Manx community in implementing the Manx Biodiversity Strategy and Delivery Plan.</p>	<p>Isle of Man Government has led on specific actions, e.g. Marine Protected Areas, Marine Biosecurity Plan and by supporting work by non-Government Organisations (NGOs) that supports delivery of the Biodiversity Strategy.</p> <p>Re-engaging other partners commenced with an update to the Manx Nature Conservation Forum in May 2018 and a detailed follow-up meeting was held in July 2018, for partners to report on their actions and plan supportive work.</p>	<p>Regular publicity about biodiversity work and what Isle of Man Government is working on.</p> <p>Government's Biodiversity Officers need to allow time to meet with stakeholders who are contributing to the delivery of the strategy in order to provide guidance and advice on the work when required.</p>	
<p>5. By 2017 seek a more robust "duty" for Government to conserve biodiversity in the Wildlife Act. This would mean public bodies need to further biodiversity conservation wherever possible, ensuring this is measured and accounted for.</p>	<p>A comparison of legal 'duties' across adjacent jurisdictions is under way.</p>	<p>Undertake review and draft alternative to Wildlife Act section 36.</p> <p>Moving this forward would require prioritisation in the legislative programme.</p>	
<p>6. By 2020 review all of government's relevant legislation, regulations, schemes, incentives and codes of practice for consistency with biodiversity conservation, especially international obligations.</p>	<p>The Marine Infrastructure Management Act 2016 was passed. The Act is in force but doesn't have the secondary legislation in place to operate. The Controlled Marine Area (Seismic survey works) Regulations 2016 are the only piece under the Act and they are operational (transferring the function through the Wildlife Act).</p> <p>A pragmatic and balanced view has been taken by the Government with regard to the control of ragwort and its enforcement, with the publishing of a Cushag Code.</p>	<p>Review Isle of Man Government policy and decision making processes to ensure effectiveness in identifying biodiversity implications.</p> <p>Wider review of legislation and Government schemes etc. is required.</p> <p>Continue to work with and assist the</p>	


	<p>In May 2018 the Isle of Man Government launched 'IOM Government Single Use Plastics Reduction Plan', which will drive the reduction of single use plastics in the workplace, schools, at events and on Government Land. https://www.gov.im/media/1362336/isle-of-man-governments-single-use-plastics-reduction-plan.pdf</p> <p>Actions included the banning of certain plastic items (straws, cutlery), balloon releases, increasing recycling, ensuring easy access to tap water, reviewing procurement criteria and establishing Sustainability Champions across all Government Departments to promote plastic reduction and other sustainability topics.</p> <p>In July 2019 the IOM Government launched 'Single Use Plastic Reduction Plan for the IOM Community' https://www.gov.im/media/1366466/190019-single-use-plastic-reduction-plan-for-the-isle-of-man-community-digital-v2.pdf</p> <p>Progress on these plastics plans was reported verbally to the July 2020 Tynwald.</p> <p>Since November 2016, new regulations and conditions of commercial fishing licence have restricted bass fishing to recreational rod and line with anglers subject to bag limit and take-able slot-size.</p>	<p>Sustainability Champions to implement the 'IOM Government Single Use Plastics Reduction Plan'.</p>	
<p>7. By 2022 embed proper consideration of biodiversity and ecosystem services in all relevant policy and decision-making to facilitate Government's commitment to biodiversity.</p>	<p>Ongoing work and the concept of consideration of biodiversity and ecosystem services must be raised at every opportunity.</p> <p>A training session for Tynwald Members in February 2020 included discussion of environmental risks with regard to new policies and legislation, and significant projects. Policy assessment tools are under consideration.</p> <p>The Flood Risk Management Act 2013 includes: Section 13 Duty to consider protection, conservation and recreation (1) In performing its functions, the Authority has the duty (the "general duty") to consider the desirability of — (b) conserving and enhancing the Island's natural beauty and amenity; (c) conserving wildlife, flora and fauna.</p> <p>The Climate Change Bill 2020 includes a duty: Section 21 Climate change duties of public bodies (1) A public body, in performing its functions, must act in the way that it</p>	<p>Isle of Man Government must continue to consider biodiversity and ecosystem services in all aspects of work.</p> <p>In Phase 1 of the Isle of Man Government Action Plan for Achieving Net Zero Carbon Emissions the Council of Ministers committed to increasing natural carbon capture opportunities, whilst protecting biodiversity and enhancing ecosystems, to help reach net zero by 2050.</p>	

	<p>considers best to contribute to – (e) protecting and enhancing biodiversity and ecosystems and the services they provide.</p> <p>A talk on hedge trimming and the Wildlife Act was given to the Local Authority Clerks' Forum and reminders have since been posted out to all hedge trimming authorities.</p> <p>Advice was given on the conservation of species-rich grassland and retention of trees where possible along the Heritage Trail as part of the significant Government work to upgrade the track.</p>		
<p>8. From 2018, where Government offers incentives it will need to show that the activities it supports are not detrimental to biodiversity and wherever possible it will provide positive incentives to conserve it.</p>	<p>This has not been audited yet and will need further discussion across all areas of Isle of Man Government.</p> <p>Agriculture policy is under review and biodiversity benefits are within this discussion.</p>	<p>Isle of Man Government reviews incentives offered to ensure not detrimental to biodiversity and where possible incentivise positive actions to conserve biodiversity.</p> <p>Isle of Man Government to provide advice to all areas of the Public Service how to assess whether the incentives they offer are positive for biodiversity or not.</p>	

Biodiversity knowledge:

Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>9. By 2016 develop a biological recording system which is maintained, evolved and accessible to users, working with partners to achieve this.</p>	<p>The Manx Biological Recording Partnership (MBRP) Steering Group was set up to direct the management of records and development of the joint database. There are currently over 700,000 records in the database. A Biological Database Manager is contracted one day a week and works with the MBRP partners to promote the gathering of biological records. The manager also provides biological database software support and training.</p> <p>Biological records are uploaded to the National Biodiversity Network Atlas, to make them available to the public and for wider species research beyond the Island. An Isle of Man Atlas website was launched in April 2018 with funding from Isle of Man Government http://isleofman.nbnatlas.org/. More than one</p>	<p>Ongoing work to deal with data backlog and to enter new records is required, in partnership between the Department, Manx Wildlife Trust (MWT), Manx National Heritage (MNH) and other partners.</p> <p>There is a need to develop the knowledge of all species groups occurring on the Island through identification and recording.</p>	

	<p>million records from Isle of Man species are now held on the NBN Atlas, which includes data from the Isle of Man database and elsewhere.</p> <p>Bird data is held by Manx Bird Life (MBL) who undertook surveys of the Island substantially funded by Government to produce the Manx Bird Atlas prior to the Strategy. Bird records continue to be collected with nearly 8.5 million records on the MBL database. From 2015 to 2019 they have collected approximately 250,000 new records and six new species have been added to the Manx list of wild birds. The MBL have recently launched a new website to enable online data receiving and reporting.</p> <p>The Manx Ornithological Society (MOS) provides annual reports on the birds of the IOM and MNH provides annual reports on the wildlife (including birds) of the Calf of Man.</p> <p>MNH volunteers are currently working on entering a back-log of Calf of Man data.</p> <p>Records are important when considering the effects of site proposals (both damaging and protective).</p> <p>Fisheries Directorate have also contracted the Biological Database Manager and another person to enter existing marine data associated with the Marine Nature Reserves (MNR) to establish a biodiversity baseline for the reserves.</p> <p>The MBRP partnership has obtained lottery funding to run identification courses, buy microscopes and involve the public in species identification and recording projects. This is being co-ordinated by MWT and is known as the Wildlife Counts project.</p>		
<p>10. Continue to identify, and by 2018 prioritise and improve biodiversity knowledge through research and survey, especially the status and abundance of key species and priority habitats (as part of the development</p>	<p>Isle of Man Government has supported research projects which have improved knowledge of biodiversity. A Biodiversity Fund has been set up by MNH and is receiving funds but not spending currently, and the Treasury has stated that it would consider an application for a bundle of funding to cover Biodiversity Action Plan (BAP) requirements. Action plan groups will review the data necessary for their work.</p> <p>The Calf of Man Bird Observatory continues to record birds providing an important long term dataset (over 60 years).</p>	<p>Review research and survey needs as Biodiversity Action Plans (BAPs) come through.</p> <p>Study of Atlantic eel population as they appear to be in good numbers and this may be due to the absence of swim bladder worm on the Island.</p>	

<p>of Biodiversity Action Plans).</p>	<p>In 2016 a coordinated nesting hen harrier survey took place. In the IOM this was co-funded by Isle of Man Government and a charity. Winter hen harrier roost counts are undertaken across the Isle of Man by volunteers.</p> <p>Isle of Man Government partially supports the Wildflowers of Mann Project which works to conserve and provide management advice on the Island's rarest plant species and habitats. The Project has co-ordinated and completed survey work for the production of an updated Flora for the Island. All Flora data up to 2017 is on Recorder/NBN. The next data sets are to be uploaded in 2020. The Project has a Rare Species Action Plan for 21 plant species. Work is underway on 11 of these and the remaining ten are in advance planning or site preparation stage.</p> <p>The Botanical Society of the British Isles held their summer field visit on the Island in 2018 and many records were collected.</p> <p>Isle of Man Government continues to work with Bangor University and Seasearch in undertaking marine biodiversity surveys and recording species and habitats. Data collection also linked to Action 9.</p> <p>In 2017 Isle of Man Government and business joint-funded the IOM seabird census as part of Seabirds Count, a British Isles-wide sea birds census (~every 15 years). The Isle of Man counts were undertaken by Manx BirdLife. Substantial declines were reported for many species.</p> <p>Isle of Man Government continues to conduct annual surveys of trout and juvenile salmon populations in several of the Island's rivers.</p> <p>Isle of Man Government has set up a voluntary scheme for bass anglers to record catch data and collect scales for further analysis. Scales from large (>45cm) bass have been subjected to isotope analysis as part of an ongoing project led by Centre for Environment, Fisheries and Aquaculture Science (CEFAS), which aims to inform management of bass populations in the northern Irish Sea. Results are awaited.</p> <p>On the Ayres National Nature Reserve monitoring by the warden and volunteers covers protected species, bird nest monitoring, non-native species and problematic predators to inform management of the site.</p>	
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Manx Bat Group continues to record and monitor bats. In 2019 around 30 volunteers conducted 1km transects with new recordable detectors (Batsearch project funded by Manx Lottery) to provide a baseline for future monitoring. Roost monitoring: about 55 roosts have been checked for continued occupancy – 70% occupied, the largest roost had 200+ bats. Data from 8 roosts have been submitted to the UK National Bat Monitoring Programme. A new species, Nathusius' pipistrelle (*Pipistrellus nathusii*) has been confirmed and voucher specimen recordings lodged with MNH. Trapping training has been received for future monitoring.

2019 records have been collected for 1 ASSI, the new Manx BirdLife reserve at the Ayres Gravel Pits, 6 MWT reserves and various private locations. Data from 16 sites (2018 & 2019) were uploaded to Ecobat to provide comparisons of bat activity with UK sites within 100 – 200 km. A total of 102 species/survey nights out of 241 (43%) ranked as high or medium/high activity. A second new species was confirmed in January 2020 – lesser horseshoe bat (*Rhinolophus hipposideros*).

The Manx Ringing Group have undertaken colour ringing projects on Arctic tern, little tern, cormorant, herring gull, lesser black backed gull, common gull, black-headed gull, ringed plover, wheatear, rock pipit, enhancing our knowledge on species movements, behaviours and longevity.

The Manx Chough Project funded and undertook a Manx Chough Census in 2014 and 2015. The results were published by Allen S Moore in Peregrine (2018) 10(6) 702-711, the journal of the Manx Ornithological Society.

Isle of Man Government supports the work of Manx Basking Shark Watch which is carrying out internationally important research on basking sharks in Manx waters. Basking sharks are listed by International Union for Conservation of Nature (IUCN) as vulnerable and in decline and work in Manx waters is contributing to international understanding of their behaviour and ecology and their global conservation status. Manx Basking Shark Watch has been tagging sharks for a number of years. They have also undertaken genetic studies in connection with Exeter University. Research continues at MBSW but the public sightings management will be managed by the Manx Wildlife Trust in future.

Tope tagging is one of the Key Performance Indicators for the Marine Officer at MWT. They have tagged over 280 sharks to date. One of the Manx tagged

	<p>tope was re-caught off the Netherlands.</p> <p>As another Key Performance Indicator for the MWT Marine Officer contract (to which DEFA contributes funds), the MWT coordinate a marine mammal strandings list and report to the UK Stranding Programme.</p> <p>Manx Whale and Dolphin Watch (MWDW) continue to record public sightings of marine mammals. The data is available on their website. MWT undertake surveys of seal populations on the Calf and in some years, other areas such as Maughold Head.</p> <p>Experts, including invertebrate specialist Keith Alexander and the Botanical Society of Britain and Ireland, have visited some of the Areas of Special Scientific Interest (ASSI) and other important sites to further our knowledge and inform future management. Parts of the following designated sites have been included: Ballaugh Curragh ASSI, Rosehill Quarry ASSI, Dalby Coast ASSI, Langness Sandwick and Derbyhaven ASSI, Ballachurry Meadows ASSI, and the Gravel Pits Area of Special Protection for Birds.</p> <p>Management of lesser mottled grasshoppers at Langness was reviewed in 2018 in a paper by Richard Selman and Andrew Cherrill in the Journal of Orthoptera Research.</p> <p>Steve Crellin has been identifying and monitoring Diptera (flies) and other invertebrates.</p> <p>There are many independent recorders providing invaluable identification and providing records of certain groups. For example Amber Cordwell who records plants and the many moth recorders who undertake surveys. There are also volunteers who record dragonflies and damselflies.</p> <p>Marine Habitat Mapping work has been undertaken by Matthew Garrett and the output showed that there is a very high density of King Scallops in Closed Areas.</p> <p>The IOM Fungus Group increase knowledge of species and distribution of IOM fungi. They also organised for the British Mycological Society and the North West Fungi Group to visit the Island and record.</p> <p>The MWT is undertaking an island-wide peat resource survey, gauging peat</p>	
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	depths.		
<p>11. Continue to improve training in ecological research and survey covering identification, conservation and sustainable use of biodiversity and engaging the wider community where possible.</p>	<p>The MOS and MBL have jointly run bird identification courses for three years, to engage new people and develop their interest in and knowledge of Manx birds. They have also in 2018 run a Young Persons Birdwatch Challenge Day and invited the public to join them and have a go.</p> <p>Isle of Man Government supported Seasearch IOM to run marine species identification training and MWT to run small shark tagging training (part of KPI agreement with DEFA).</p> <p>The Isle of Man Fungus Group has organised identification courses to both engage and build a basic knowledge of fungi and to cover the identification of difficult groups, including tree rot fungi.</p> <p>Isle of Man Government, through the Department, warrants and provides training to a number of volunteer Fishery Watchers to aid enforcement of legislation designed to conserve native freshwater fish stocks.</p> <p>A seminar on natural capital was held in 2018.</p> <p>The MWT has succeeded in getting grant aid (known as Wildlife Counts project) to lead on some training and with the Manx Bat Group (MBG), arranged for training on bats and tree works in 2018, previously recognised by the MBG and Isle of Man Government as a specific need. MNH are coordinating on future training needs relating to species identification. Courses on beetle and spider identification have been held in 2019. MWT organised an Environmental Impact Assessment training course.</p> <p>Isle of Man Government arranged an Urban Biodiversity seminar in July 2018 aimed at Planners and Architects. In conjunction, the MOS arranged a talk on swift conservation by the same trainer.</p> <p>Nest monitoring training has been provided by Isle of Man Government to volunteers working on the National Nature Reserve.</p> <p>Hen harrier roost counts training has been provided by Louise Samson for volunteers undertaking winter counts.</p>	<p>Isle of Man Government to include specialist training in Biosphere Isle of Man Strategy, matching BAP priorities. Work with third sector to encourage training.</p>	

	<p>Manx Bat Group held a Bat Call Analysis training event and the Group is usually represented at the Bat Conservation Trust conference every year, where expertise is updated.</p> <p>MNH organised a training event on Management Planning in the Countryside led by off-Island specialist Mike Alexander.</p> <p>Isle of Man Government officers view webinars led by the Chartered Institute of Ecology and Environmental Management (CIEEM).</p> <p>The Biodiversity Warden attends the annual tern conferences hosted by RSPB.</p> <p>The Calf of Man wardens continue to carryout bird research and monitoring.</p> <p>Isle of Man Government Senior Biodiversity Officer provided a training session to the Planning Committee on ecological issues.</p> <p>Many non-Governmental organisations provide public events e.g. bat walks and fungi forays throughout the year for both member and non-members.</p> <p>The Isle of Man Government hosted the Inland Fisheries conference in May 2019 as part of Wildlife Week.</p> <p>Community engagement with biodiversity and the wider Biosphere is an important element of the emerging Biosphere Strategy, as is education. The two strategies thereby inter-relate and support one another.</p> <p>Some of the above were funded by the Manx Lottery Trust, under a bid by the MWT on behalf of the MBRP for recording and training.</p>		
<p>12. Continue to identify areas for co-operation in research and survey with other parties to the CBD, especially islands, other UK Crown Dependencies, Overseas Territories, the UK and the Republic of Ireland.</p>	<p>Isle of Man Government engages with neighbouring jurisdictions through the British-Irish Council and other fora, with Crown Dependencies (CDs) through the Inter-Island Environment Meetings, and with Overseas Territories through the UK Overseas Territories Conservation Forum.</p> <p>The MOS is encouraging members to get involved in coordinated British Trust for Ornithology surveys across the British Isles, both building up the Manx data and expertise and putting the Isle of Man into the wider context of wildlife conservation.</p>	<p>Stoat samples will be sent to a New Zealand academic for their DNA analysis project.</p>	

	<p>Isle of Man Government is an interested party in CEFAS-led research into north-west UK sea bass populations.</p> <p>Isle of Man Government has provided hen harrier samples, for genetic testing, to Dr Arati Iyengar at University of Central Lancashire, for a project investigating population dynamics across the UK and Europe.</p> <p>The Manx Chough Project has long co-operated with Chough researchers in the UK (and Spain). Links were established in 2013 with the Durrell Wildlife Conservation Trust, who are undertaking a Chough re-introduction project on Jersey (including grazing by Manx Loaghtan sheep).</p> <p>Seabirds Count (Seabird Monitoring Programme Partnership survey 2015-2019) - MNH, MBL and Isle of Man Government are partners and a Manx breeding seabird survey was carried out in 2017 and 2018. A coordinated tern census took place in 2018.</p> <p>Isle of Man Government is funding the Centre for Ecology and Hydrology to undertake an assessment of rodenticide residues in birds of prey and samples will remain available for other chemical analyses.</p>		
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Community engagement and understanding:

Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>13. By the end of 2015 put the Island forward as a UNESCO Biosphere Reserve.</p>	<p>UNESCO Biosphere accreditation achieved.</p> <p>A post was created by Isle of Man Government to develop and market the Biosphere Isle of Man and build up the partnership scheme. This position was made permanent in 2019. Many projects have emanated from this. A strategy is under development.</p>	<p>A Biosphere assistant is to be recruited.</p>	
<p>14. By 2016 develop and improve communication, education and public awareness of</p>	<p>Isle of Man Government part funds the MWT Education Officer post which reaches thousands of school pupils and many more from the wider community every year. There have been 'Eco-Mann' and 'Eco-Schools' initiatives.</p> <p>Manx Bird Life also employs an education officer 3 days a week.</p>	<p>Prepare Biosphere Strategy and implement community understanding and engagement aspects.</p> <p>Isle of Man Government can further promote</p>	

<p>biodiversity, how it supports us (ecosystem services), how our lives and actions affect biodiversity, here and outside our territory and what we can do to conserve it.</p>	<p>Isle of Man Government part funds MWT Marine Officer who leads on marine education, monitoring of species (e.g. seals).</p> <p>A series of community events have raised awareness of Ramsey Marine Nature Reserve.</p> <p>Wildflowers of Mann has published a book on Manx wildflowers. The MWT has published a book on Manx wildlife.</p> <p>A programme of engagement with Biosphere issues has included a monthly e-newsletter, Friday Facts, Saturday Stroll and Marine Monday on social media channels, and Prof Peter Bridgwater provided the first Biosphere Lecture.</p> <p>The Department Report on the Salmonid Monitoring Programme is updated biennially. Its online publication is advertised via conventional and social media.</p> <p>Department's Fisheries Directorate has a regularly updated a Facebook page with over 1,000 followers.</p> <p>Isle of Man Government and many NGOs worked together during 2018-19 to deliver Year of our Island, including a series of public presentations around sustainable fishing and marine nature reserves, and one of Biosphere Isle of Man. Isle of Man Government also financially and materially supported the Manx Wildlife Trust event at the Port Erin Festival of Beach and Sea (July 2018).</p> <p>The first of a series of public Marine Nature Reserves 'roadshows' was held in May 2019, with an additional event held as part of the Festival of the Sea in July 2019.</p> <p>Manx Wildlife Week was held in 2018 and 2019 with talks, walks, identification courses etc. by NGOs and Government, increasing public knowledge of biodiversity on the Isle of Man.</p> <p>The Isle of Man's first Environment Festival organised by Beach Buddies, which receives Isle of Man Government funding, was held in May 2019.</p> <p>The Isle of Man joined with other British-Irish Council administrations to run a coordinated Invasive Species Week in 2018 and 2019, to raise the profile of</p>	<p>biodiversity issues via press releases and social media and radio interviews.</p>	
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these issues, via social media and radio interviews.

The Department's Ecosystem Policy Team continues to promote awareness on issues such as wildlife and habitat conservation, plastic reduction (public awareness has risen greatly following television coverage, which has been built on) and energy efficiency through attendance at events such as the Royal Manx, the Environment Festival and the Food and Drink Festival. An annual guided ASSI walk for the public is organised and walks, talks, public liaison on the National Nature Reserve take place through the Ayres Warden.

In 2016 the MOS and MBL organised a Day of Manx Birds, opened by the Lieutenant Governor, with talks from on and off-island speakers regarding local species and bird conservation issues of interest. A second event took place in 2018. The MOS is also attempting to engage more young people with an interest in birds, via a dedicated subcommittee, and has run family-oriented events and courses for new birders, with MBL.

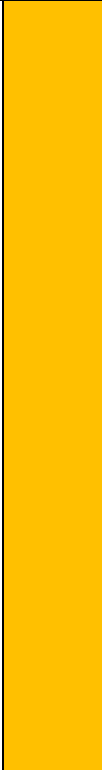

Friends of the Earth have engaged the public on issues relating to water quality, river contamination and mine workings run off.

In 2018, Isle of Man Government and the Manx Ornithological Society worked together to provide Arctic Tern Information Officers at the Point of Ayre for key days during the TT, to aid the landowner in protecting the birds at this honeypot tourism site.

The Manx Chough Project has raised awareness of the importance of grazing for chough conservation, at the University of Trás-os-Montes and Alto Douro (UTAD), Portugal in 2013, at A Celebration of Manx Birds, Douglas in 2016, and at a public meeting about the Chough in the IOM, Wales and Scotland, St John's in 2017.

Biosecurity leaflets for anglers and boat users produced and promoted by the Department's Fisheries Directorate in 2018.

A roadshow display on the effects of plastic pollution in the marine environment has been developed by Isle of Man Government and the MWT and will be touring the island in due course.

<p>15. By 2017 further integrate biodiversity into school curricula at each educational level.</p>	<p>There is a tripartite agreement is in operation between Isle of Man Government and the MWT to part fund the MWT Education Officer who is helping to implement the environmental education aspects of the Isle of Man Government's Biodiversity Strategy and from 2020 will include plastics and Biosphere.</p> <p>Single-use plastic awareness and reduction has been promoted in the Island's Schools including the negative impacts plastic has on the world's biodiversity.</p> <p>Manx Bat Group has provided a training session to construction students at University College IOM about bats in buildings and the legislation.</p> <p>Biosphere Isle of Man provides books related to each of the 17 Sustainable Development Goals to each primary school as part of a UK wide initiative.</p> <p>The Curraghs Wildlife Park Education Officer engages visiting school groups in learning about wildlife. In 2019 a new nature trail was established at the Park specifically for school groups.</p> <p>The Environmental Education Network has been reconvened and is being coordinated by the Manx Wildlife Trust.</p> <p>DEFA has linked with the DESC Biosphere and the outdoor classroom programme.</p>	<p>Identify key partners and capacity to produce educational packs for relevant modules of the Eco schools programme. Review with the Environmental Education Network.</p> <p>Include biodiversity as Continuing Professional Development (CPD) for primary and relevant secondary school teachers. Identify outdoor locations near each school as outdoor classrooms.</p> <p>Consider best approach to deliver Manx biodiversity education into Key Stage 3 teaching.</p>	
<p>16. By 2025 encourage all local businesses to take account of the local and global biodiversity impacts of their activities, and ensure they understand the need for and benefits of biodiversity conservation.</p>	<p>Through the UNESCO Biosphere Partner system partners pledge to protect our natural resources, develop the economy in a sustainable way, make our environmental impacts positive and promote living landscapes.</p> <p>Biosphere also promotes environmental awareness through its media and events (see above).</p> <p>The UNESCO Biosphere awards were launched 2018 to acknowledge the contribution of Isle of Man organisations to; Environment, Energy, Economic Sustainability, Education and Public Awareness.</p> <p>Biosphere IOM gave a talk to the Executive Club, November 2019 to aid engagement with the business community.</p> <p>Biosphere Isle of Man is hosting a University College IOM intern in 2020 from</p>	<p>There is potential to develop this through the Biosphere programme.</p>	

	<p>the Masters Programme in Business entrepreneurship, towards improving engagement between Biosphere IOM and local businesses.</p> <p>IoM Government is discussing training needs on the circular economy, with potential to reduce impacts in the future.</p>		
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Site protection:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>17. By 2025 we will appropriately conserve and manage 20% of land and inland water through statutory designations and other effective conservation management schemes.</p>	<p>Twenty-one ASSIs designated and confirmed, one of which is also a National Nature Reserve.</p> <p>4.74% of the land has been designated as ASSI. This provides a portion of this target. A review has been undertaken of other effective conservation measures, but the area covered has not been analysed yet. Upland agri-environment measures are under consideration, which could cover a large area.</p> <p>One site designated, awaiting a final decision, one agreed and ready to designate imminently, three more sites in preparation. The potential for international Emerald Sites and further Ramsar Sites is under discussion.</p> <p>Potential Ramsar sites have been identified.</p> <p>The positive management of some key habitats (some designated ASSI, some not) is achieved through Management Agreements negotiated with land managers who in return receive an annual payment. Land with current Departmental Management Agreements is checked every year to ensure that payments made for the conservation of key habitats and species are justified.</p> <p>On land where management agreements are not operational. The ASSI consenting system works to ensure that the negative impacts of any activity likely to damage the special interest of the site, are minimised, or eliminated.</p> <p>MNH and MWT undertake positive land management practices on their significant land holdings.</p>	<p>Continue ASSI designation.</p> <p>Create a database of qualifying non-government areas in conservation management.</p> <p>There is a need to quantify the land area under 'other effective conservation management schemes'.</p>	

<p>18. By 2020 at least 10% of our marine ecosystem will be conserved through effectively managed, ecologically representative and well-connected protected areas and other effective area-based conservation measures.</p>	<p>Since July 2018 (coming into force in September 2018) a total of 10.85% of the Manx territorial sea is now protected within Marine Nature Reserves. These 10 MNR encompass 51.8% of the inshore 0-3 mile area and are statutorily protected under the Wildlife Act 1990 and associated byelaws. The Manx MNR have been included on the UN Environment World Conservation Monitoring Centre's (UNEP-WCMC), World Database on Protected Areas (WDPA), OSPAR's Marine Protected Area database, and the UK's JNCC Marine Protected Areas Mapper site.</p> <p>In January 2020, a management plan for the 0-3 M marine area was laid before Tynwald, having been previously approved by DEFA P&S, Territorial Sea committee and COMIN. This will help coordinate conservation and fisheries management in this area (A DEFA P4G target for 2019).</p>	<p>The work to designate all important sites in Manx waters continues and further work is needed to identify offshore sites (3-12nm) which may need protection. A key habitat currently not protected is the deep water mud to the west of the IOM which is important for langoustine (<i>Nephrops</i>) fishing and rare species such as sea pens. Work continues on this aspect.</p>	
<p>19. From 2016, when assessing developments on or adjacent to protected sites, there will be increased consideration of biodiversity and environmental sustainability.</p>	<p>The Marine Infrastructure Management Act provides a clear framework for Environmental Impact Assessments (EIA) for marine developments going forward, although as noted previously, the lack of secondary legislation means the majority of this Act is not yet active. The exception, Seismic Survey legislation, which has been introduced, does provide a mechanism for improved consideration of these issues.</p> <p>MWT organised an Environmental Impact Assessment training course.</p> <p>Training has been provided on Urban Biodiversity and Planning.</p> <p>Biodiversity Officers advise Planning and Building Control Directorate on the wildlife implications of planning applications. Officers also provide pre-planning wildlife advice to those who get in contact prior to submitting planning applications and undertake pre-planning wildlife record searches. The Planning Directorate have an up to date GIS layer of the designated sites, and the Biodiversity Officers are automatically made aware of any planning applications that infringe upon a designated site.</p> <p>Fisheries Officers advise the Planning and Building Control Directorate on the fisheries implications of planning applications and provide pre-planning advice when sought.</p> <p>Biodiversity is accounted for within the filtering system for sites for Local Plans.</p>	<p>Assess effectiveness of current system for flagging up such places.</p> <p>There is currently no biodiversity check on the Planning application form, except for trees and watercourses, specifically.</p> <p>Department's Ecosystem Policy Team to provide geographic information system layers to Planning and Building Control Directorate showing records of protected species, for use in the Uniform software, to aid preplanning discussions. Protected sites have been provided.</p> <p>A review of current legislation would be beneficial to identify where additional protection for wildlife could be incorporated.</p>	

<p>20. Continue to investigate and pilot landscape-scale initiatives to restore and conserve scarce or vulnerable habitats and their rare species and by 2025 improve ecosystem resilience to climate change.</p>	<p>There is agreement to support Wildflowers of Mann and Ramsey Forest Project for a further five years from 2017. See Action 23 regarding recent successes.</p> <p>Catchment planning is under development with regard to flood risk management in the Laxey and Douglas catchments.</p> <p>A Ballaugh Curragh Restoration Group has been formed, of key nature conservation organisations involved in this area, to discuss future management.</p> <p>Agricultural policy is under review for the uplands and lowlands.</p> <p>Forestry plans are being created (see Action 44).</p> <p>Piloting initiatives is in line with Biosphere principles to try new solutions and showcase the results.</p>	<p>Isle of Man Government Upland Strategy and agricultural policy review could provide benefits.</p> <p>Phase 1 of the Isle of Man Government Action Plan for Achieving Net Zero Carbon Emissions in 2050 includes an action to develop a comprehensive land management plan to maximise carbon sequestration and maintain and restore biodiversity and wider ecosystem services.</p> <p>An action was also included to develop a comprehensive blue carbon management plan to maximise carbon sequestration and maintain and restore biodiversity and wider ecosystem services.</p>	
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Habitat loss:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>21. Isle of Man Government will continue to promote a policy of 'no net loss' for semi-natural Manx habitats and species and ensure that unavoidable loss is replaced or effectively compensated for.</p>	<p>A no net loss principle is followed with regard to Department's advice to Planning and Building Control Directorate and consideration of effects on ASSIs and also in consideration of consent requests for areas of natural habitat via the Agricultural Development Scheme.</p> <p>There have been some preliminary discussions with regard to the potential for implementing a net gain policy and this has now been included in the climate change programme.</p>	<p>Phase 1 of the Isle of Man Government Action Plan for Achieving Net Zero Carbon Emissions in 2050 includes an action to develop planning advice on maximising carbon sequestration, minimising emissions and maintaining and restoring ecosystem services, and work towards a requirement for biodiversity net gain in planning, which would go over and above the action described in the strategy.</p>	
<p>22. By the end of 2015 complete a land use and terrestrial habitat assessment to understand rates of</p>	<p>An assessment has been completed, producing a new habitat map by remote sensing, but it has not been possible to provide robust comparable data for change in all of our assessed habitats, in comparison with the 1990s data, as hoped for. Some habitats have more comparable data than others. Work is planned, to create an up to date habitat map from the information created,</p>	<p>Create a useable habitat map from the updated assessment and make it available.</p>	

<p>habitat loss, use this information to help prioritise habitat and species conservation, through Biodiversity Action Plans, and consider how to monitor success.</p>	<p>which can be made available, with the relevant caveats on the accuracy of the data, which it is hoped can be progressed in 2020 or 2021.</p>		
<p>23. By 2025 restore at least 16% of the area of degraded marine, freshwater and terrestrial ecosystems.</p>	<p>The Ramsey Forest Project, run via the Wildflowers of Mann partnership project, is a visionary project seeking to re-forest a significant area for broad community and biodiversity benefits in the long term, by joining up ancient woodland fragments by native planting. Woodland has been planted between ancient woodland areas on the edge of Ramsey and juniper woodland has been planted at the head of Glen Auldyn (there was only 1 juniper plant left on the IOM which was near the Sound and thought to be planted on a dog grave).</p> <p>The Wildflowers of Mann have restored one pond (Gat e Whing), with rare plant records, in the northern plain.</p> <p>Marine Nature Reserves, and associated byelaws, offer statutory protection of key habitats and species. There is a general exclusion of towed bottom gear in MNRs except for the Ramsey MNR Fisheries Management Zone, which is managed to substantially reduce the impact on benthic habitats.</p> <p>A restoration scheme on Foxdale Deads (Louisa Mine) has been detrimental to biodiversity on the site, but protects the waterway against pollution downstream. Mitigation measures were planned included moving orchids (undertaken), protecting a diverse road verge (lost) and retaining calaminarian grassland. The level of success needs reviewing. A scheme for Dixon’s Mine is under consideration.</p> <p>Natural spawning of salmon in upper waters of Santon Burn has recommenced following installation of a fish pass in 2009 and restoration stoking of fry in 2011 and 2013. The substantial rise in juvenile trout densities in upper reaches, since the return of sea trout, has remained stable. Department’s Fisheries Directorate continues to explore opportunities to improve fish passage in other rivers.</p> <p>The Ballaugh Curragh Restoration Group has discussed experimental work towards monitoring the effects of wallabies and towards rewetting.</p>	<p>Isle of Government to maintain list of sites that have been and are being restored.</p> <p>Identify further degraded habitats and potential methods of restoration. Priority should be given to most threatened habitats.</p> <p>Isle of Man Government to continue to engage with those undertaking restoration schemes.</p>	

	There is a challenge here, in terms of determining what area to assess against, but the emphasis should be on remediation and movement forward rather than measuring areas. It is unlikely to be possible to determine the area for which remediation would be appropriate.		
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Species conservation:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>24. By the end of 2016 identify indicator species including migrants, as signs of environmental change, initiate monitoring and by 2020 initiate investigations into the reasons for any changes identified</p>	<p>A project to identify potential biodiversity indicators has been concluded and recommendations have been made in the report.</p> <p>Breeding bird trends were funded by DEFA and undertaken by Manx BirdLife but this finished at the end of 2016, after 10 years of data, following the Manx Bird Atlas. A technical report has been provided. A public report is intended, in collaboration with Manx Bird Atlas who undertook the work, under contract.</p>	<p>Discussion required in order to take this forward.</p>	
<p>25. Continue to target conservation action on key species and priority habitats through Biodiversity Action Plans.</p>	<p>Isle of Man Government and NGOs are currently working on Biodiversity Action Plans for priority species and habitats (see Appendix A for status).</p> <p>Action plan groups, covering broad habitats and taxon groups have been set up to draft action plans and discuss issues of mutual interest, towards an integrated set of plans which cover achievable short-term goals which should be updated regularly in a rolling plan. Some groups have made great progress and produced draft plans, others have made less progress.</p> <p>In 2000 Butterfly Conservation produced a Regional Action Plan for butterflies in North West England (Cheshire, Cumbria, Greater Manchester, Lancashire, Merseyside and Isle of Man).</p> <p>The Wildflowers of Mann project continues to monitor and explore the options for to the re-introduction of rare native plant populations and maintain sustainable populations in the wild through the Rare Species Action Plans. As part of this, 10 rare species have been introduced to Ramsey Forest. An annual report is produced for the Department.</p>	<p>The Department to re-engage with the Biodiversity Action Plan Leaders Group.</p>	

	<p>Native Freshwater Fish Strategy endorsed by the Minister in 2015.</p> <p>MWT has led on a project to accelerate some key biodiversity actions in the short term. This has been called Action For Wildlife and it has the support of DEFA. Projects have been created via meetings of the BAP leaders. A list of ten projects has been created and will be taken forward as funding allows. The Wildflowers of Mann project in conjunction with DEFA and COLAS has made a number of plant introductions of rare native species at Rosehill Quarry ASSI, Billown.</p>		
<p>26. Continue to improve, maintain and enforce legislation for the protection of threatened species and habitats.</p>	<p>Since 2016, recreational rod and line anglers only have been allowed to fish for bass within Isle of Man territorial waters (no commercial take allowed). Anglers are subject to a number of conditions e.g. with regard to the number and size of bass they may take. The Bass Anglers Sportfishing Society (BASS) granted its John Leballeur award for bass conservation to the Department for introduction of these legislative changes.</p> <p>Marine Nature Reserves Byelaws (2018) provide specific protection for threatened marine habitats and species</p> <p>Prosecutions have been taken against people damaging the Ayres NNR. The Ayres (DEFA land) byelaws are under review.</p> <p>Protected species, invasive non-native invasive species and protected sites are regularly referred to in planning responses, demolition notices and advice to Government Departments and statutory boards.</p> <p>Since 2015 110 ASSI consents have been issued to owners and tenants of ASSI designated land to enable certain activities to take place that are beneficial or not detrimental to the special interest of the site.</p> <p>From 2015 127 Wildlife Act licences have been issued.</p> <p>Isle of Man Government maintains a register of people in possession of certain captive birds and makes checks.</p> <p>The Isle of Man Government controls the import and export of endangered species as per the Convention in Trade of Endangered Species (CITES) via the Endangered Species Act and permits are issued and enforced via Customs and</p>	<p>Engage with the UK government regarding their upcoming Environment Bill and the most appropriate CITES legislation post-Brexit.</p> <p>Bring forward legislative updating when the legislative agenda allows (Wildlife Act). Compare legislation with the adjacent jurisdictions. Review schedules and put forward amendments as required (10 year periods).</p> <p>Consider lead in the environment, from shooting and fishing (international convention expectation).</p> <p>Consideration would be useful on whether a water abstraction licensing system would be appropriate on the Island given the apparent increase in planning applications for boreholes in recent years.</p>	

	<p>the Police.</p> <p>To increase awareness of legislation Isle of Man Government has produced a series of mobile displays on the topics of protected sites, protected species, CITES and Ayres NNR.</p> <p>The Agricultural Development Scheme protects habitat from damage/inappropriate management and the Isle of Man Government take enforcement action when necessary. A recent case resulted in £30,000 being withheld from their annual payment.</p> <p>The Police appoint Police Wildlife Liaison Officers who investigate possible wildlife offences and ensure that wildlife issues are dealt with correctly.</p>		
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Genetic diversity:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>27. By 2025 identify genetically distinct species (and sub-species) of flora and fauna restricted to the Isle of Man (endemic), including Manx domesticated plant varieties and animal breeds, and mitigate risks to them. Where a species is suspected to be endemic take precautionary measures to conserve it. Endemic wild plants and animals will be treated as key species. (See action 25).</p>	<p>Wildflowers of Mann Project (MWT) have produced a report on Manx plant species.</p> <p>The 7th North Atlantic Native Sheep and Wool Conference took place on the IOM in October 2017, highlighting the loaghtan sheep breed.</p>	<p>Study to identify genetically distinct fauna restricted to the IOM.</p> <p>Initial studies on Manx hen harrier DNA by the University of Central Lancashire has shown that they are genetically different from hen harriers elsewhere in the British Isles and Europe. This topic deserves further investigation.</p> <p>Opportunities for genetic studies of Atlantic salmon in Manx waters would aid management.</p>	

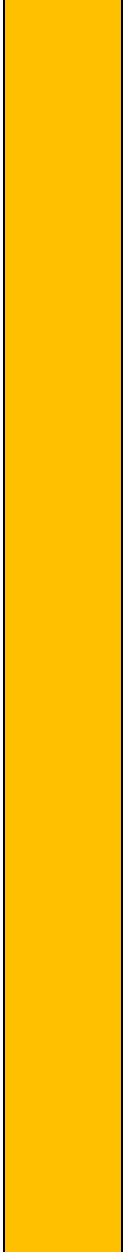
Ecosystem services:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>28. Continue to improve understanding of the value of ecosystem services to our economy.</p>	<p>Cross-department flood group set up. Catchment management (see Action 20) is under consideration.</p> <p>Training provided on natural capital.</p> <p>The significant value of ecosystem services has been highlighted by the Climate Change Action Plan and associated documents presented to Tynwald in January 2020.</p> <p>Also, see action 29.</p>	<p>Identify ecosystem services affected in reports within the Department.</p> <p>Phase 1 of the Isle of Man Government Action Plan for Achieving Net Zero Carbon Emissions in 2050 includes an action to develop planning advice on maintaining and restoring ecosystem services.</p> <p>Phase 1 of the Action Plan also includes an action to complete the first in a series of woodland planting projects with wider ecosystem services benefits.</p> <p>The drafting of the Climate Change Bill and associated work streams is expected to emphasise the importance of ecosystem services carried out by habitats and species and benefitting our economy.</p>	
<p>29. By 2025 undertake an audit of essential ecosystem services (many of which cannot be quantified) and take action to maintain them.</p>	<p>Two reports have resulted, one assessing the value of terrestrial ecosystem services and the other marine. However, both are rather tentative reports, bearing in mind the assumptions required, and are therefore not highly publicised.</p> <p>Work to increase awareness of the value of our ecosystem services will form an integral part of our Biosphere Strategy.</p> <p>A blue carbon study was completed by an MSc student based at the Department and York University (thesis and presentation available).</p>	<p>Consider further work to hone these assessments.</p>	
<p>30. By 2020 minimise further loss of carbon to the atmosphere from terrestrial, wetland and marine habitats, which form important carbon</p>	<p>Most of the Territory's carbon stored in soils is in the uplands. A provisional estimate of the quantity of carbon in the Island's soils is 4.76 million tonnes.</p> <p>In May 2013 the Department instigated a working group of uplands stakeholders to identify the diverse uses and values of the uplands and to develop a vision for the future of the Departments uplands estate and adjoining</p>	<p>Identify main risks to carbon stores from activities on land, in freshwater and in the sea.</p> <p>Phase 1 of the Isle of Man Government Action Plan for Achieving Net Zero Carbon Emissions in 2050 includes an action to complete the first</p>	

<p>stores by restricting damaging practices.</p>	<p>lands and a report was produced in 2014. Recommendations include habitat restoration initiatives.</p> <p>Isle of Man Government has started restoring upland bogs through blocking drainage to increase carbon capture by activating peat accumulation. Two student projects based at the Department have contributed to our understanding of peat reserves.</p> <p>MWT volunteer working with the Department to assess depth of peat.</p> <p>Marine Nature Reserves Byelaws (2018) provide specific protection for specific marine habitats which are important carbon stores.</p> <p>The 0-3 M marine management plan, contains specific goals in relation to carbon management in the inshore marine nature reserves and fisheries.</p> <p>The current review of agricultural support includes carbon sequestration and the discussion of details is ongoing.</p> <p>Climate Change Emergency work is likely to contribute to assessment and addressing this issue.</p>	<p>of peat land restoration projects, restoring a minimum of 1000 acres, for banning all peat cutting and an action to work in partnership with the MNFU to consider the active role agriculture can play in increasing carbon sequestration.</p>	
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Pollution:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>31. Continue and improve the identification and monitoring of pollution on high-risk land, in freshwater and marine habitats, minimising risks by effective legislation, facilities, incentives and sanctions.</p>	<p>Legislation and policies to address pollution are based on the 'polluter pays' principle and DEFA has an approved Enforcement Policy. The Water Pollution Act 1993 provides for the protection of inland and coastal waters from pollution (part 1) and the control of deposits in the sea (part 2). Department of Infrastructure administers the Isle of Man Marine Pollution and Salvage National Contingency Plan whilst Department of Enterprise Ship Registry is responsible for the implementation of International Conventions including MARPOL which covers pollution from ships.</p> <p>Biological and chemical monitoring is carried out in inland waters and reported annually. Proposed new Environmental Quality Standards (EQS) for controlled waters (inland, coastal and bathing waters) are currently out to public</p>	<p>Continue to actively monitor and review all monitoring programmes to ensure pollution issues are proactively addressed and high-risk areas are identified. EQS Regulations to be approved in December 2020.</p> <p>Develop catchment management plans with other relevant Government bodies to address and manage contamination issues at source.</p>	

	<p>consultation with a view to new Regulations going to Tynwald in December 2020.</p> <p>Beach Buddies provides annual data on plastic pollution on beaches, which DEFA submits to an international monitoring database coordinated by OSPAR, to which the Isle of Man is a signatory, via the UK.</p>		
<p>32. By 2025 bring pollution, including diffuse pollution, to levels which support healthy ecosystems and biodiversity.</p>	<p>This area is becoming highlighted more and more and falls within a number of international conventions. Assessing the historic landfill issues and mining issues as part of a broader assessment of pollution sources is necessary. A catchment-wide assessment of the Neb is under consideration. Sewage in rivers remains an issue.</p> <p>Raw sewage outfalls have been closed at the Ayres National Nature Reserve and ASSI at Smeale and at Ramsey in 2017 with the new sewage works coming online.</p> <p>Manx Utilities Regional Sewage Treatment Strategy is progressing with the target to treat sewage in Peel, and Laxey-Baldrine by late 2022, resulting in all sewage catchments on the Isle of Man having appropriate sewage treatment. These two matters are currently under Planning consideration.</p> <p>Manx Utilities are identifying all discharges of storm sewage from its network and identifying those which do not conform to latest environmental standards (i.e. no screening). It is intended for all known storm discharges to be removed or appropriately screened by 2025.</p> <p>The Marine Conservation Society operates a beach monitoring programme for litter and Beach Buddies have had enormous success in engaging the public to clean their beaches of rubbish.</p> <p>A Government Single Use Plastics Reduction Plan is in operation and a Community Plan was submitted to July 2019 Tynwald.</p>	<p>Assess the issues (point source and diffuse pollution) and work towards solutions in key sectors. This could involve mapping diffuse pollution in rivers and assessing the river pollution caused by each historic dump site, to prioritise and lead towards options for remediation. Also further work with agricultural interests to reduce point source and diffuse organic losses.</p> <p>Initiate a citizen science monitoring programme.</p> <p>Identify all Manx Utilities storm discharges and review performance. Determine a programme of works to remediate.</p>	

Invasive non-native species:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>33. By the end of 2016 complete and begin</p>	<p>The Isle of Man Government take part in the British Irish Council non-native species sub group meetings.</p>	<p>Review and update the Asian hornet plan.</p>	

<p>implementing an Invasive Non-native Species Strategy and a Marine Biosecurity Plan.</p>	<p>A marine biosecurity strategy has been completed for Manx waters. Council of Ministers approved development of the related Marine Biosecurity Implementation Plan and Species-Specific Action Plans, which are currently being developed.</p> <p>Eradication of the pacific oyster is taking place in Ramsey.</p> <p>Schedule 8 of the Wildlife Act 1990 was updated in 2011, prohibiting the release of certain introduced species into the wild. Specific monitoring and plans are in place or under development for some species. A response plan for Asian hornet has been completed.</p> <p>The Isle of Man has EU agreement to the enforcement of bee importation restrictions, providing protection against Varroa, following proof of Varroa-free status. Manx bees are now regularly exported for both research purposes and to establish new disease free colonies in other jurisdictions.</p> <p>A check-clean-dry procedure is promoted in freshwater habitats. A BIC officer group is coordinating action to control invasive species, including publicity via Invasive Species Week from 2018.</p> <p>Invasive species issues are raised via the Planning procedures, to remediate areas under development.</p> <p>Manx Utilities are eradicating Japanese knotweed form the Auldyn catchment under the first catchment plan for this species.</p> <p>Arbory Commissioners are undertaking control of Japanese knotweed in the parish.</p> <p>Friends of the Neb has been set up to control Japanese knotweed and Himalayan balsam in this catchment via volunteer action. DEFA is providing some support. If successful, this model might prove useful elsewhere.</p> <p>On the Ayres National Nature Reserve non-native invasive species are being removed gradually.</p> <p>A Shearwater Recovery Project on the Calf of Man is eradicating rodents from</p>	<p>Complete a terrestrial and freshwater INNS strategy.</p>	
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	<p>the Calf and Kitterland for the benefit of ground and tunnel-nesting birds. A two year clear period is required to demonstrate success.</p> <p>An invasive non-native species strategy for the terrestrial and freshwater habitats is being developed, by the Department.</p>		
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Climate challenge:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>34. By 2020 identify species and habitats most likely to be or already affected by climate change and start implementing appropriate adaptation measures.</p>	<p>The Isle of Man Government’s public consultation on Climate Change was launched in March 2019 with more than 1000 responses. Previous work was undertaken by Acclimatise, with workshops on the Isle of Man.</p> <p>A Climate Change Action Plan was presented to Tynwald in January 2020. A Climate Change bill is now being drafted.</p> <p>A flooding and coastal protection assessment has been undertaken for government by JBA (report on www.gov.im), resulting in the prioritisation of areas for action and a Flood and Coastal protection Strategy has been published and is being taken forward by a cross-department government group.</p> <p>The Climate Change Emergency work may progress this further.</p>	<p>Continue to support climate change studies and initiate more long term studies. Identify vulnerable species and habitats.</p>	
<p>35. By 2025 ensure that no human activities contribute additional stress to vulnerable Island ecosystems already impacted by climate change or ocean acidification.</p>	<p>DEFA Fisheries liaise with other Government bodies, private contractors and developers to minimise detrimental impact of necessary works to rivers.</p> <p>Climate Change Emergency work may develop this.</p>		

General sustainability:

Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>36. By the end of 2016 identify the local biodiversity which has economic, traditional or cultural value.</p>	<p>A contract is under discussion to take this forward.</p>	<p>An assessment of the economic, traditional and cultural value of biodiversity, to be delivered by 2025.</p>	
<p>37. Continue to adopt sustainable practices across government, keeping up-to-date with new developments.</p>	<p>The work stream of the Biosphere promotes sustainable practice across the community and the climate change work will result in a lot of positive action across government. Under the plastics plans (see Action 6) Sustainability Champions are working within each department to minimise the unnecessary use of single use plastics.</p> <p>There has been government discussion on the potential of utilising the Sustainable Development Goals more widely.</p>		

Practise and promote sustainability:

Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>38. By the end of 2016 develop and start monitoring Biodiversity Indicators for each objective of the Biodiversity Strategy and from 2017 use these for reporting on the Island and contributing to the UK's National Reports.</p>	<p>A report on actions towards Aichi targets was provided to the Overseas Territories Nature Conservation Forum in 2016 http://www.ukotcf.org/charters/progress.htm.</p> <p>Regarding indicators, see comment in Action 24 above.</p>	<p>Biodiversity indicators to be agreed to take forward.</p>	

<p>39. By 2017 evaluate the need for Environmental Impact Assessments for terrestrial and marine developments to be embodied in law and by 2020 put forward legislation if necessary.</p>	<p>EIAs are required for major terrestrial developments, under the Strategic Plan, a policy document relating to the Town and Country Planning Act 1999.</p> <p>The Marine Infrastructure Management Act has been passed. The legislation streamlines the consenting process for developments in the Isle of Man's territorial waters and requires an Environmental Impact Assessment for all listed marine developments. The details on EIA requirements will be set out in secondary legislation that it is still to be developed before the Act comes into full operation.</p> <p>Also see Action 19.</p>	<p>Consider EIA as a legislative versus policy matter with regard to terrestrial developments.</p>	
<p>40. By 2020 promote best practice and voluntary codes to minimise impacts on the environment for all relevant land, freshwater and marine activities.</p>	<p>A Coastal Code has been published, aimed at recreational users of the coast and marine environment.</p> <p>Birds and the Law - A Code for Birdwatchers and Photographers was published in 2013.</p> <p>The Manx Hedgerow Code was revised in September 2012 and has been highlighted in discussions at the Local Authority Clerks' Forum in 2017, now that local authorities are undertaking verge management.</p> <p>Manx Utilities publishes a guide to the rights and responsibilities of riparian ownership available from its website.</p> <p>Anglers Code of Conduct revised in Feb 2017 and is available in several languages on request, as a download and from dispensers at all reservoirs.</p> <p>The Code of Good Agricultural Practice for the Protection of Water has been revised and issued by the Department's Agriculture Directorate in 2019.</p> <p>Marine Animal Stranding's leaflet, providing advice on what to do in the event of a marine stranding, was published on the Isle of Man Government website in 2018.</p>	<p>Promote codes every two years.</p> <p>An audit needs to be carried out to find out what advice is lacking at present.</p> <p>The Department's Inland Fisheries Directorate are looking at ways to make river bank engineering works more natural and sustainable by promoting methods of soft engineering to other Government departments and contractors. We are hoping to promote this through the Biosphere Programme.</p> <p>A Code for Dog Walkers to be drafted by the Isle of Man Government.</p> <p>A guidance sheet on Planning and wildlife is to be produced to provide pre-application advice to applicants.</p>	
<p>41. By 2025 promote responsible and sustainable production and consumption,</p>	<p>Working towards the Isle of Man becoming a 'Zero Waste Island'. The Environment Directorate deals with Water Discharge Licence Register and Licensed Waste Disposal Sites Register, and water resource management is handled under the guiding principles of the Watercourse Management Guide 2006.</p>	<p>Work with partners to draw attention to impacts of our lifestyle on global biodiversity.</p> <p>Identify indicators of sustainable production - fisheries, timber and agriculture.</p>	

<p>particularly as it benefits biodiversity here and worldwide, by providing information and advice on best practice, including sustainable procurement.</p>	<p>In January 2011 the Minerals and Secondary Aggregate Technical Group (MSATG) was established.</p> <p>The Isle of Man Government has a target of reducing greenhouse gas emissions by 80% by 2050, based on 1990 levels. A renewable energy sustainability study was published in 2010, which looked at renewable energy options for the island. In late 2015 an Agreement for Lease was signed with DONG Energy to start investigations for a potential 700MW offshore windfarm between 6 and 12 nautical miles from the east coast of the Isle of Man. Survey licences were issued for 3 potential tidal energy sites but have not been taken forward at his time.</p> <p>Under the Biosphere project, Sustainability Champions have been appointed for each Government Department <u>and</u> The Champions implement the Plastics Plan.</p> <p>The Isle of Man Government plastic reduction plan banned specific single use plastic items and the implemented procurement criteria encouraging the use of sustainable alternatives.</p> <p>A Climate Emergency Consultative Transformation Team has been created with officer representatives from across government, led by Professor James Curran, a climate change action plan has been created and a Climate Change Bill has been presented to Tynwald.</p>		
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Marine management:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>42. By 2018 assess the viability of Marine Stewardship Council accreditation of all major Manx sea fisheries, with an aim of accreditation by 2020</p>	<p>The Isle of Man Government remains involved in an MSC-facilitated Fishery Improvement Project (FIP) for <i>Nephrops</i> (Dublin Bay prawn) and <i>Pecten</i> (scallop) fisheries, which is undertaking pre-assessment of regional fisheries.</p> <p>For these and other species, and following experience with MSC certification of Manx queen scallops and advice from Bangor University, it is quite feasible to identify and implement the requirements of local species-specific fishery improvement plans in house.</p> <p>As such, the overall objectives of sustainable management and compliance with international fisheries management standards remains valid, and the IoM, will</p>	<p>Continue development of the 0-3 nautical mile management plan as a king scallop Fisheries Improvement Project in collaboration with relevant industry fisheries interests.</p> <p>The development of a five-year scientific plan by Bangor University, and similar strategic planning by DEFA Fisheries Division (review of Future Fisheries Strategy), including the collection of appropriate-level spatial fishing activity data to inform species-specific stock</p>	

	<p>follow its own programme to work towards achieving fully sustainable fisheries in conjunction with industry and with advice from its independent science advisors Bangor University. For example, the recently approved 0-3nm management plan includes the development of an accompanying FIP, which will be developed in collaboration with relevant fisheries interests.</p>	<p>assessments for crab, lobster and whelk.</p> <p>Review and progress <i>Nephrops</i> fishery in western Territorial Seas.</p> <p>Develop long term fishery objectives and management plans for all commercially important species.</p>	
<p>43. By 2025 demonstrate that all marine fishing activity and aquaculture, whether commercial or recreational, is sustainable based on the ecosystem approach (see Box 5).</p>	<p>The Fisheries Act 2012 enables the Department to produce Regulations which come into effect as soon as they have been signed by the Minister.</p> <p>The Department maintains an independent fishery advisor via Bangor University, which undertake annual stock surveys and provide fishery-management advice. The Isle of Man has ten Marine Nature Reserves designated in part to promote the recovery of commercial fishery stocks. In total, around 11% of Manx waters are protected from mobile gear fishing, including 52% of the inshore area.</p> <p>These reserves provide an important mechanism for achieving sustainable marine production within the context of an ecosystem approach.</p> <p>In 2015 "Future Fisheries: A 5-year strategy for the sustainable development of the Isle of Man's sea fisheries and marine environment 2016-2021" was unanimously approved by Tynwald.</p> <p>Ramsey Bay Fisheries management zone, within the MNR, continues to provide valuable fishery catches and information within a conservatively and cooperatively-managed fishery to help inform its own, and wider territorial sea, sustainable management.</p> <p>In 2016, as part of an overall fishing-effort reduction programme, fishing access to the 3-12, and particularly to the 0-3 mile areas, was reduced. This will help achieve an appropriate level of overall fishing effort within the territorial sea. A specific management plan for the 0-3 m fishery will be developed during 2019, based around a sustainable, ecosystem-based approach.</p> <p>Enforcement and compliance operations remain a major area for DEFA Fisheries using FPV Barrule.</p>		

	<p>A migratory fish protection zone has been in operation around the north of the Island since 2005.</p> <p>In 2016, fishing for bass was restricted to rod and line recreational anglers only with latter subject to bag limit and retention slot-size.</p> <p>There is a licensing system for sand eel fishing.</p>		
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Land management:			
Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
<p>44. By 2020 complete and start implementing a sustainable forestry and woodland strategy for government land, acknowledging recognised sustainable management standards.</p>	<p>Our Landscape, Our Legacy has been published. DEFA is working towards FSC accreditation. Plans for 50% of the sites will be consulted on shortly. Biodiversity Officers have been consulted on Forestry Management Plans to ensure that the Island’s commercial woodlands are productive and conserve and enhance biodiversity where suitable. Action to tackle further invasive alien plants is under consideration within this process.</p>	<p>Include key biodiversity elements in each of the plans.</p>	
<p>45. By 2020 complete and start implementing a sustainable uplands strategy, acknowledging recognised sustainable management standards for these habitats.</p>	<p>A vision for the future of the Department’s uplands estate and adjoining lands was written and had public consultation.</p> <p>The Department’s Agriculture and Lands Directorate has undertaken heather cutting, where burning is not undertaken or possible, and some grip-blocking and wet scrape creation. An area of failed forestry has been removed to relink grouse habitat, as mitigation for other operations. Shooting tenants continue to burn patches to retain or increase the structural diversity of the vegetation, though it is possible that this may halt if they lose interest in future.</p> <p>An upland agri-environment scheme is under discussion within the review of agricultural support policy, which may effectively provide much of an upland strategy.</p>		

Traditional knowledge:

Biodiversity Strategy Actions	Summary of progress and the present state	Further plans to meet commitments and local needs	Rating
46. By 2023 promote a greater understanding of importance and value of sustainable traditional practices of land, freshwater and sea use and management.	Isle of Man Government recognises the importance of maintaining traditional management for the positive benefit of, for example, species-rich hay meadow or grazed pasture and this is incentivised via Management Agreements. Initial discussions on future agri-environment schemes have taken place.	This is very wide ranging and needs full consideration to bring together information and opinions on the best sustainable traditional fisheries and agricultural practices to promote.	



This document can be provided in large print or audio tape on request

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