Llywodraeth Cymru
Welsh Government

Cyfoeth Naturiol Cymru
Natural Resources Wales

Habitats Regulations General Implementation Report for the reporting period 2019-2024

Wales

Regulation 9A of the Conservation of Habitats and Species Regulations 2017 (as amended)

Technical Appendix

About Natural Resources Wales

Natural Resources Wales' purpose is to pursue sustainable management of natural resources. This means looking after air, land, water, wildlife, plants and soil to improve Wales' well-being, and provide a better future for everyone.

Recommended citation for the report

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Mae'r adroddiad hwn yn darparu'r asesiad gwladol cyntaf o weithredu rheoliad 9A o Reoliadau Cadwraeth Cynefinoedd a Rhywogaethau yng Nghymru, sy'n cwmpasu'r cyfnod rhwng 2019 a 2024. Wedi'i ddatblygu yng nghyd-destun ymadawiad y DU o'r Undeb Ewropeaidd, mae'r adroddiad yn cynnig trosolwg cynhwysfawr o'r camau a gymerwyd i roi'r Cyfarwyddeb Cynefinoedd ac Adar ar waith. Mae cwmpas yr asesiad yn cynnwys amgylcheddau daearol, dŵr croyw a morol ledled Cymru, gan ganolbwyntio'n benodol ar y rhwydwaith safleoedd cenedlaethol o ardaloedd cadwraeth arbennig (ACA) ac ardaloedd gwarchodaeth arbennig (AGA). Er bod y Cyd-bwyllgor Cadwraeth Natur yn adrodd ar weithredu'r elfen alltraeth ar wahân, gellir ymgorffori gwybodaeth berthnasol yma i roi cyd-destun.

Prif gyflawniadau o weithredu'r Gyfarwyddeb Cynefinoedd

Mae Cymru wedi gwneud cynnydd sylweddol o ran cryfhau cydlyniant ei rhwydwaith o safleoedd gwarchodedig a'i rheoli. Mae rhwydwaith yr ACA morol bellach bron â chael ei gwblhau, gyda 14 ACA gydag elfennau morol ac amcanion cadwraeth wedi'u cyhoeddi ar gyfer elfennau morol y safleoedd hyn. Mae'r Rhaglen Rhwydweithiau Natur, a gynorthwyir gan fuddsoddiad sylweddol gan Lywodraeth Cymru, wedi cyflawni adferiad cynefinoedd wedi'i dargedu, adferiad rhywogaethau, ac wedi gwella'r ffordd y caiff safleoedd eu rheoli ar draws ardaloedd cadwraeth arbennig morol a daearol. Mae'r cyflawniadau nodedig yn cynnwys adfer mawndiroedd, twyni tywod, a chynefinoedd afonydd, yn ogystal â gweithredu prosiectau LIFE mawr megis Twyni Byw LIFE, Cyforgorsydd Cymru, a Pedair Afon LIFE. Mae'r mentrau hyn wedi cyfrannu at wrthdroi colli bioamrywiaeth, meithrin gallu i ymaddasu, ac ymgysylltu cymunedau lleol â chyflawni gwaith cadwraeth.

Mae'r asesiad o fanteision a gwasanaethau a ddarperir gan y rhwydwaith o safleoedd cenedlaethol wedi datblygu, gydag astudiaethau diweddar yn meintioli adnoddau carbon glas ac yn gwerthuso manteision lles amgylcheddau morol ac arfordirol. Mae mentrau megis Llwybr Arfordir Cymru a Physgodfa Gocos Aber Afon Dyfrdwy yn dangos bod safleoedd gwarchodedig wedi'u hintegreiddio ag economïau lleol, tra bod rhaglenni profiad y cyhoedd megis Natur a Ni a'r Strategaeth Llythrennedd Morol wedi meithrin newidiadau cadarnhaol yn y ffordd y mae'r cyhoedd yn derbyn yr angen i warchod bioamrywiaeth. Mae awdurdodau, cyrff cadwraeth a rhanddeiliaid yn cydweithredu'n well o ganlyniad i bartneriaethau megis Partneriaeth Bioamrywiaeth Cymru a Grŵp Llywio Rheolaeth Ardaloedd Morol Gwarchodedig Cymru.

Prif gyflawniadau o weithredu'r Gyfarwyddeb Adar

Mae Cymru wedi gwneud cynnydd sylweddol o ran gweithredu'r Gyfarwyddeb Adar yn ystod cyfnod adrodd 2019–2024. Mae rhwydwaith o 21 AGA yng Nghymru yn cwmpasu dros 8,000 km², gyda mesurau cadwraeth ar waith ar gyfer 79.3% o'r rhwydwaith a chynlluniau rheoli cynhwysfawr wedi'u sefydlu ar gyfer pob safle. Nid oedd angen unrhyw fesurau digolledu ar gyfer cynlluniau na phrosiectau o fewn yr

ardaloedd gwarchodedig arbennig yng Nghymru yn ystod y cyfnod adrodd, sy'n dangos bod y safleoedd wedi cael eu gwarchod a'u cynllunio yn effeithiol.

Mae'r cyflawniadau allweddol ers y rownd adrodd flaenorol yn cynnwys cwblhau'r trydydd adolygiad o rwydwaith AGA y DU, dosbarthu ac ymestyn ardaloedd gwarchodaeth arbennig morol yng Nghymru, a gwella'r ffordd y caiff poblogaethau adar môr o bwys rhyngwladol eu gwarchod. Mae mentrau strategol megis Strategaeth Cadwraeth Adar Môr Cymru, Cynllun Adfer y Gylfinir, ac ardaloedd gylfinir pwysig yn dangos camau gweithredu wedi'u targedu ar gyfer rhywogaethau â blaenoriaeth. Mae prosiectau LIFE, gan gynnwys Biosecurity for LIFE (Bioddiogelwch i Gymru) a môr-wennol wridog LIFE, wedi cryfhau gwytnwch safleoedd ac wedi lleihau bygythiadau gan rywogaethau goresgynnol.

Mae ymdrechion monitro ac ymchwil yn parhau i fod yn eang, gydag adar ymhlith y grwpiau tacsonomig sy'n cael eu monitro orau yng Nghymru. Mae data o gynlluniau cenedlaethol a lleol yn parhau i lywio'r gwaith o gyflawni cadwraeth a chefnogi rhwymedigaethau Cymru o dan gyfraith yr UE sydd wedi'i chadw, a fframweithiau bioamrywiaeth rhyngwladol, gan gynnwys y Fframwaith Bioamrywiaeth Fyd-eang a'r ymrwymiad 30x30.

Ymchwil, monitro a gwybodaeth

Mae ymchwil a monitro yn tanategu'r cyflawniadau yr adroddwyd amdanynt, gyda systemau gwyliadwriaeth cadarn ar waith ar gyfer amgylcheddau daearol a morol. Mae Rhwydwaith Newid Amgylcheddol y DU, cynlluniau gweithredu nitrogen, ac ystod eang o adroddiadau tystiolaeth wedi llywio penderfyniadau o ran rheoli a datblygu polisïau. Mae'r cynnydd mewn argaeledd gwybodaeth, trwy lwyfannau megis MapDataCymru, wedi cefnogi'r gwaith o reoli safleoedd yn fwy effeithiol a thryloyw.

Mae'r ffynonellau gwybodaeth cyffredinol ar weithredu'r Gyfarwyddeb Cynefinoedd yn gynhwysfawr, gyda chanllawiau ac adroddiadau ar gael gan y Cyd-bwyllgor Cadwraeth Natur, Cyfoeth Naturiol Cymru a Llywodraeth Cymru. Mae cynlluniau monitro, gan gynnwys y model Monitro Safonau Cyffredin ar safleoedd gwarchodedig, a monitro rhywogaethau yn strwythuredig, yn darparu tystiolaeth hanfodol ar gyflwr yr amgylchedd ac effeithiolrwydd mesurau cadwraeth. Mae integreiddio gwyddoniaeth dinasyddion wedi cryfhau'r broses o ddarparu tystiolaeth ymhellach, yn enwedig mewn amgylcheddau daearol.

Dynodi a rheoli'r rhwydwaith safleoedd cenedlaethol yn strategol

Mae rhwydwaith safleoedd cenedlaethol Cymru yn cynnwys 14 ACA sydd â chydrannau morol ac 81 ACA daearol, sy'n cwmpasu dros 23,000 km², ochr yn ochr â 12 AGA morol a 9 AGA daearol, sydd gyda'i gilydd yn cwmpasu oddeutu 8,000 km². Mae mesurau cadwraeth a chynlluniau rheoli ar waith ar gyfer bron pob ACA ac AGA, gyda chynlluniau rheoli cynhwysfawr neu offerynnau cyfatebol wedi'u sefydlu ar gyfer 99.3% o'r ardaloedd cadwraeth arbennig a 100% o'r ardaloedd gwarchodaeth arbennig. Mae'r Rhaglen Genedlaethol Creu Cynefinoedd wedi cynnal cydlyniant rhwydwaith drwy ddarparu cynefinoedd i wneud yn iawn am golledion sy'n deillio o wasgfa arfordirol, yn enwedig mewn perthynas â phrosiectau rheoli risg llifogydd ac erydiad arfordirol.

Caiff amrywiaeth o offerynnau deddfwriaethol a pholisi eu defnyddio i gefnogi'r gwaith o weithredu'r Gyfarwyddeb Cynefinoedd a'r Gyfarwyddeb Adar yng Nghymru, gan roi bioamrywiaeth a chydnerthedd ecosystemau wrth wraidd y gwaith o gynllunio a gwneud penderfyniadau. Mae fframweithiau allweddol yn cynnwys Deddf Llesiant Cenedlaethau'r Dyfodol (Cymru) 2015, sy'n ymgorffori egwyddorion datblygu cynaliadwy ar draws cyrff cyhoeddus; Deddf yr Amgylchedd (Cymru) 2016, sy'n cyflwyno dyletswydd statudol o ran bioamrywiaeth ac yn hyrwyddo dulliau sy'n seiliedig ar ecosystemau; a Deddf Amaethyddiaeth (Cymru) 2023, sy'n cefnogi rheoli tir yn gynaliadwy trwy fecanweithiau megis y Cynllun Ffermio Cynaliadwy sydd ar ddod. Caiff yr ysgogwyr hyn eu hategu gan fentrau strategol, megis y Cynllun Gweithredu Adfer Natur a'r ymrwymiad 30x30, sy'n ceisio atal colli bioamrywiaeth ac ehangu ardaloedd gwarchodedig ar gyfer cynefinoedd a rhywogaethau, gan gynnwys adar sy'n ymddangos yn rheolaidd. Mae'r Cynllun Aer Glân i Gymru a Pholisi Cynllunio Cymru yn atgyfnerthu'r nod i integreiddio amcanion amgylcheddol i feysydd polisi ehangach ymhellach. Gyda'i gilydd, mae'r offerynnau hyn yn llywio'r broses o gyflawni mesurau cadwraeth ar draws rhwydwaith safleoedd cenedlaethol yr ardaloedd cadwraeth arbennig a'r ardaloedd gwarchodaeth arbennig, ac yn cefnogi cyfraniad Cymru at rwymedigaethau'r UE yr ydym wedi'u cadw, a thargedau bioamrywiaeth rhyngwladol.

Ailgyflwyno rhywogaethau

Mae ailgyflwyno rhywogaethau Atodiad IV wedi profi'n llwyddiannus i degeirian y fign galchog, tafolen y traeth, llyffant y twyni, a madfall y tywod, gydag atgenhedlu naturiol a thwf mewn poblogaeth wedi'u cofnodi mewn sawl safle. Mae'r ymdrechion i fagu misglen berlog yr afon mewn caethiwed a'i hailgyflwyno yn parhau, a chynhaliwyd yr ailgyflwyno cychwynnol yn 2024. Mae cynnig i ailgyflwyno eryr y môr i dde-orllewin Cymru yn cael ei ystyried ar hyn o bryd yn dilyn cais briodol am drwydded i Cyfoeth Naturiol Cymru.

Adar: adroddiad cyffredinol a chyflawniadau

Y rownd adrodd hon yw'r tro cyntaf i Gymru gynhyrchu adroddiad cyffredinol gwladol ar adar o dan reoliad 9A. Mae'r adroddiad yn adeiladu ar sylfaen adroddiad erthygl 12 y DU 2019, gan ganolbwyntio ar rywogaethau sy'n bridio ac yn mudo'n rheolaidd.

Mae'r Cynllun Ffermio Cynaliadwy sydd ar ddod wedi'i gynllunio i gefnogi cynhyrchu bwyd yn gynaliadwy, addasu i newid hinsawdd, a chydnerthedd ecosystemau. Yn ogystal â datganiad *argyfwng natur* gan Weinidog Cymru, mae ffocws o'r newydd i fynd i'r afael ag ymrwymiad Cymru i'r Fframwaith Bioamrywiaeth Fyd-eang[1]. Mae hyn yn cynnwys cynigion i warchod o leiaf 30% o dir a môr, ac ymrwymiad Llywodraeth Cymru i sefydlu targedau bioamrywiaeth statudol yng Nghymru[2] erbyn 2030, fel y nodir ym Mil yr Amgylchedd (Egwyddorion, Llywodraethiant a Thargedau Bioamrywiaeth) (Cymru). Mae rhywogaethau wedi'u nodi fel pwnc â blaenoriaeth,

[1] Targedau Fframwaith Bioamrywiaeth Fyd-eang 2030 (gyda nodiadau canllaw)

[2] Sicrhau Dyfodol Cynaliadwy: Egwyddorion Amgylcheddol, Llywodraethiant a Thargedau Bioamrywiaeth. Papur Gwyn ar Egwyddorion Amgylcheddol, Llywodraethiant a Thargedau Bioamrywiaeth ar gyfer Cymru Wyrddach:Ymateb Llywodraeth Cymru i'r Papur Gwyn

gyda'r bwriad o lunio targedau sy'n ymwneud â dosbarthiad, helaethrwydd a pherygl difodiant.

Mae fframwaith 30x30 Cymru wedi gosod targedau uchelgeisiol ar gyfer ardaloedd gwarchodedig ac adfer rhywogaethau, tra bo uchelgais polisi Cynllun Gweithredu Adfer Natur yn parhau i lywio ein cyfeiriad tuag at reoli nodweddion safleoedd gwarchodedig yn gadarnhaol, gan gynnwys cynefinoedd a rhywogaethau â blaenoriaeth.

Mae'r ymdrechion monitro ac ymchwil yn helaeth, gydag adar ymhlith y grwpiau tacsonomig sy'n cael eu monitro orau yng Nghymru. Mae'r data'n deillio o gynlluniau cenedlaethol a lleol, gan gynnwys yr Arolwg Adar Bridio, y Rhaglen Monitro Adar Môr, yr Arolwg Adar Gwlyptir, a'r Panel Adar Bridio Prin.

Cyfyngiadau a bylchau data

Mae'r adroddiad yn tynnu sylw at nifer o gyfyngiadau a bylchau yn y data, yn enwedig mewn perthynas â monitro rhai rhywogaethau a chynefinoedd. Mae cyflwr rhai nodweddion bioamrywiaeth daearol yn parhau i fod yn anhysbys, ac mae effeithiau'r ffliw adar pathogenig iawn ar boblogaethau adar gwyllt yn cyflwyno heriau parhaus. Mae eithrio rhywogaethau adar anfrodorol o gwmpas y Gyfarwyddeb Adar yn cyfyngu ar gynwysfawredd yr adrodd yn y maes hwn.

Y camau nesaf

Wrth edrych tuag at y dyfodol, mae'r prif heriau sy'n ein wynebu yng Nghymru yn cynnwys mynd i'r afael ag effeithiau newid hinsawdd, rhywogaethau goresgynnol, a darnio cynefinoedd, yn ogystal â sicrhau cydnerthedd ecosystemau ac adferiad rhywogaethau sydd o dan fygythiad. Mae buddsoddiad parhaus mewn monitro, ymchwil ac ymgysylltu â rhanddeiliaid yn hanfodol er mwyn cyrraedd y targedau uchelgeisiol a osodwyd gan fframweithiau cenedlaethol a rhyngwladol. Bydd y camau nesaf yn canolbwyntio ar gyflawni'r Cynllun Ffermio Cynaliadwy, gweithredu Strategaeth Cadwraeth Adar Môr Cymru, a hyrwyddo'r ymrwymiadau i dargedau 30x30 a bioamrywiaeth statudol. Bydd y camau gweithredu hyn yn cyfrannu at y weledigaeth hirdymor o Gymru wydn, gyfoethog o ran natur, lle mae bioamrywiaeth a gwasanaethau ecosystem yn cynnal llesiant cenedlaethau'r presennol a'r dyfodol.

Executive summary

Introduction

This report provides the first country-level assessment of the implementation of Regulation 9A of the Conservation of Habitats and Species Regulations in Wales, covering the period 2019–2024. Developed in the context of the UK's departure from the European Union, the report offers a comprehensive overview of actions taken to give effect to the Habitats and Birds Directives. The scope of the assessment includes terrestrial, freshwater, and marine environments across Wales, with a particular focus on the National Site Network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). While the offshore implementation component is reported separately by JNCC, relevant information may be incorporated here to provide context.

Main Achievements in Implementing the Habitats Directive

Wales has made significant progress in strengthening the coherence and management of its protected site network. The marine SAC network is now nearing completion, with 14 SACs with marine components and conservation objectives published for the marine components of these sites. The Nature Networks Programme, supported by substantial Welsh Government investment, has delivered targeted habitat restoration, species recovery, and improved site management across both marine and terrestrial SACs. Notable achievements include the restoration of peatlands, sand dunes, and river habitats, as well as the implementation of major LIFE projects such as Sands of LIFE, Welsh Raised Bogs, and Four Rivers for LIFE. These initiatives have contributed to reversing biodiversity loss, building adaptive capacity, and engaging local communities in conservation delivery.

The assessment of benefits and services provided by the National Site Network has advanced, with recent studies quantifying blue carbon resources and evaluating the well-being benefits of marine and coastal environments. Initiatives such as the Wales Coast Path and the Dee Estuary Cockle Fishery illustrate the integration of protected sites with local economies, while public engagement programmes like Nature and Us and the Ocean Literacy Strategy have fostered positive changes in public acceptance of biodiversity protection. Enhanced cooperation between authorities, conservation bodies, and stakeholders has been achieved through partnerships such as the Wales Biodiversity Partnership and the Welsh Marine Protected Area Management Steering Group.

Main Achievements in implementing the Birds Directive

Wales has made substantial progress in implementing the Birds Directive during the 2019–2024 reporting period. The network of 21 SPAs in Wales covers over 8,000 km², with conservation measures in place for 79.3% of the network and comprehensive management plans established for all sites. No compensatory measures were required for plans or projects within Welsh SPAs during the reporting period, reflecting effective site protection and planning.

Key achievements since the previous reporting round include the completion of the Third Review of the UK's SPA network, the classification and extension of marine SPAs in Wales, enhancing protection for internationally important seabird populations. Strategic initiatives such as the Welsh Seabird Conservation Strategy, Curlew Recovery Plan, and Important Curlew Areas demonstrate targeted action for priority species. LIFE projects—including Biosecurity for LIFE and LIFE Roseate Tern—have strengthened site resilience and reduced threats from invasive species.

Monitoring and research efforts remain extensive, with birds among the best-monitored taxonomic groups in Wales. Data from national and local schemes continue to inform conservation delivery and support Wales's obligations under retained EU law and international biodiversity frameworks, including the Global Biodiversity Framework and the 30by30 commitment.

Research, Monitoring, and Information

Research and monitoring underpin the achievements reported, with robust surveillance systems in place for both terrestrial and marine environments. The UK Environmental Change Network, Site Nitrogen Action Plans, and a wide range of evidence reports have informed management decisions and policy development. The increased availability of information, through platforms such as DataMap Wales has supported more transparent and effective management of sites.

General information sources on the implementation of the Habitats Directive are comprehensive, with guidance and reporting available from JNCC, Natural Resources Wales (NRW), and the Welsh Government. Monitoring schemes, including the Common Standards Monitoring model on protected sites and structured species monitoring, provide vital evidence on the state of the environment and the effectiveness of conservation measures. The integration of citizen science has further strengthened evidence delivery, particularly in terrestrial environments.

Designation and strategic management of the National Site Network

The National Site Network in Wales comprises 14 SACs with marine components and 81 terrestrial SACs, covering over 23,000 km², alongside 12 marine and 9 terrestrial SPAs which together span approximately 8,000 km². Conservation measures and management plans are in place for nearly all SACs and SPAs, with comprehensive management plans or equivalent instruments established for 99.3% of SACs and 100% of SPAs. The National Habitat Creation Programme has maintained network coherence by delivering compensatory habitat for losses resulting from coastal squeeze, particularly in relation to flood and coastal erosion risk management projects.

A range of legislative and policy instruments support the implementation of both the Habitats Directive and Birds Directive in Wales, placing biodiversity and ecosystem resilence at the heart of planning and decision making. Key frameworks include the Well-being of Future Generations (Wales) Act 2015, which embeds sustainable development principles across public bodies; the Environment (Wales) Act 2016, which introduces a statutory biodiversity duty and promotes ecosystem-based approaches; and the Agriculture (Wales) Act 2023, which supports sustainable land management through mechanisms such as the forthcoming Sustainable Farming

Scheme. These drivers are complemented by strategic initiatives such as the Nature Recovery Action Plan (NRAP) and the 30by30 commitment, which aim to halt biodiversity loss and expand protected areas for both habitats and species, including regularly occurring birds. The Clean Air Plan for Wales and Planning Policy Wales further reinforce the integration of environmental objectives into broader policy domains. Together, these instruments shape the delivery of conservation measures across the National Site Network of SACs and SPAs, and support Wales's contribution to retained EU obligations and international biodiversity targets.

Species Reintroduction

The reintroduction of Annex IV species has seen successful outcomes for fen orchid, shore dock, natterjack toad, and sand lizard, with natural reproduction and population growth recorded at multiple sites. Captive rearing and reintroduction efforts for freshwater pearl mussel are ongoing, with initial releases carried out in 2024. A proposal to reintroduce White tailed-Eagle to SW Wales is currently under consideration following the appropraite licence application to Natural Resources Wales.

Birds: General Report and Achievements

This reporting round marks the first time Wales has produced a country-level Birds General Report under Regulation 9A. The report builds on the foundation of the 2019 UK Article 12 report, focusing on regularly occurring breeding and migratory species.

The forthcoming Sustainable Farming Scheme is designed to support sustainable food production, climate adaptation, and ecosystem resilience. In addition to the Welsh Ministerial *nature emergency* declaration there is renewed focus to address Wales' commitment to the Global Biodiversity Framework[3]. This includes proposals to protect at least 30% of land and sea and the Welsh Government commitment to establish statutory biodiversity targets in Wales[4] by 2030 as set out in the Environment (Principles, Governance and Biodiversity Targets) (Wales) Bill. Species have been identified as a priority topic area with the intention to produce targets relating to species distribution, abundance, and extinction risk.

The 30by30 framework for Wales set ambitious targets for protected areas and species recovery, while the policy ambition of the Nature Recovery Action Plan (NRAP) remains to steer out direction towards positive management of protected site features, including priority habitats and species.

Monitoring and research efforts are extensive, with birds among the best-monitored taxonomic groups in Wales. Data are derived from national and local schemes, including the Breeding Bird Survey, Seabird Monitoring Programme, Wetland Bird Survey, and Rare Breeding Birds Panel.

[3] The Global Biodiversity Framework (GBF) 2030 Targets (with Guidance Notes)

[4] Securing a Sustainable Future: Environmental Principles, Governance and Biodiversity targets. Principles, Governance and Biodiversity targets for a Greener Wales White Paper: A Welsh Government response to the White Paper

Data Limitations and Gaps

The report highlights several data limitations and gaps, particularly in relation to the monitoring of certain species and habitats. The condition of some terrestrial biodiversity features remains unknown, and the impacts of Highly Pathogenic Avian Influenza (HPAI) on wild bird populations present ongoing challenges. The exclusion of non-native bird species from the scope of the Birds Directive limits the comprehensiveness of reporting in this area.

Next steps

Looking forward, the main challenges for Wales include addressing the impacts of climate change, invasive species, and habitat fragmentation, as well as ensuring the resilience of ecosystems and the recovery of threatened species. Continued investment in monitoring, research, and stakeholder engagement will be essential to meet the ambitious targets set by national and international frameworks. The next steps will focus on delivering the Sustainable Farming Scheme, implementing the Welsh Seabird Conservation Strategy, and advancing the 30by30 and statutory biodiversity targets commitments. These actions will contribute to the long-term vision of a resilient, nature-rich Wales, where biodiversity and ecosystem services support the well-being of current and future generations.

1. Introduction

1.1 Purpose and scope of report

This report provides the first country-level assessment of the implementation of Regulation 9A of the Conservation of Habitats and Species Regulations 2017 (as amended in Wales) (“Habitats Regulations 9A”), covering the period 2019–2024. Developed in the context of the UK’s departure from the European Union, the report offers a comprehensive overview of actions taken to give effect to the Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC).

1.2 Context of EU Exit and legislative continuity

Following the UK’s departure from the European Union, the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 came into force on 31 January 2020. These amendments ensured the continued application of the Directives’ provisions in domestic law, with separate statutory instruments introduced for England and Wales. In Wales, Regulation 9A requires periodic reporting on the implementation of the Habitats and Birds Directives, including the measures taken and progress made toward achieving their objectives.

1.3 Policy drivers in Wales

Wales has international commitments, a robust legal framework and a catalogue of policy tools which place the importance of biodiversity and its role in maintaining and restoring healthy resilient ecosystems, at the heart of decision-making for all types of wellbeing - economic, social, cultural and environmental.

International commitments

The Kunming-Montreal Global Biodiversity Framework (GBF) is the landmark international agreement by the UN Convention on Biological Diversity. It builds on the Strategic Plan for Biodiversity (2011-2020), its achievements, gaps, and lessons learned, and the experience and achievements of other relevant multilateral environmental agreements. The GBF sets out an ambitious plan to take action to transform our societies' relationship with biodiversity by 2030, in line with the 2030 Agenda for Sustainable Development and its Sustainable Development Goals. The Kunming-Montreal Global Biodiversity Framework (GBF), includes four goals and 23 targets to be achieved by 2030.

In addition, through the UK's status as a signatory, Wales is committed to international conventions on conservation of biodiversity of wetlands (Ramsar), wild migratory species (Bonn), marine wildlife (OSPAR) and European wildlife and habitats (Bern).

Welsh legislation

The Wellbeing of Future Generations (Wales) Act 2015 (WFG), and the Environment (Wales) Act 2016 give Wales both the opportunity and a legal imperative to shift the focus away from managing the symptoms of biodiversity loss, to tackling root causes. They put biodiversity and resilient ecosystems at the centre of planning and decision-making, at all levels across all sectors.

The WFG Act puts in place the 'Resilient Wales' goal: '*A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change)*'. All public bodies in Wales are required to work towards this and adopt the principles outlined in the Act. Working in tandem is the Environment Act, which places a statutory duty on public authorities in Wales to seek to the maintain and enhance biodiversity in exercise of their functions, and report their performance to Welsh Government. The Environment Act contains policy products (outlined below) which are designed to drive forward sustainable management of natural resources and maintain and enhance resilience of ecosystems. WFG (Wales) Act 2015 video and Environment (Wales) Act 2016 video

Other legislation relevant to biodiversity conservation is related to core pressures on species and habitats. The Agriculture (Wales) Act 2023 supports the objectives of SACs and SPAs by promoting sustainable land management practices that enhance biodiversity and protect natural habitats. Through its Sustainable Land Management (SLM) framework, the Act encourages farming methods that contribute to conservation objectives. The Environment (Air Quality and Soundscapes) (Wales) Act 2024 brings in a requirement to set new national targets for air quality pollutants. As explained in the Explanatory Notes a standard might be specified, for example, in relation to a concentration of an air pollutant with harmful effects on public health, ecosystems and biodiversity.

Biodiversity policy

Products of the Environment (Wales) Act 2016

Publication of the State of Natural Resources Report (SoNaRR) by NRW is a legal requirement under the Environment (Wales) Act 2016. The report contains assessments of biodiversity, main trends and factors affecting, or likely to effect, the state of natural resources, evidence needs and gaps, and the extent to which Wales is achieving SMNR. The previous full report was published in 2020, SoNaRR 2020 and an interim report in 2024 State of Natural Resources Report: Interim report 2024. The most recent full report will be published in December 2025.

The Welsh Ministers must prepare, publish and take steps to implement a Natural Resources Policy, and review the policy after each general election. The policy sets out the national priorities, risks and opportunities for the sustainable management of natural resources in Wales, and drawing from the national evidence base in SoNaRR, includes what should be done in relation to climate change and biodiversity.

Area Statements contribute to implementing the Natural Resources Policy in a local context, taking a place-based approach and focusing on collaborative working. Communities are well placed to take local action themselves. Area Statements aim to facilitate this, linking local action to national priorities and opportunities, and finding practical solutions that bring the widest possible benefits to people and nature.

Nature Recovery Action Plan

The Nature Recovery Action Plan (NRAP) for Wales is aimed at addressing the underlying causes of biodiversity loss by putting nature at the heart of decision-making, increasing the resilience of the natural environment and taking specific action for habitats and species to halt and reverse decline.

First published in 2015 and consisting of Part I (Our Strategy for Nature) and Part II (Our Action Plan), the NRAP is for everybody with an interest in biodiversity action in Wales. Part I (the strategy) contains the six objectives Wales has committed to addressing to tackle the issues driving biodiversity decline, and support its recovery:

- Engage and support participation and understanding to embed biodiversity throughout decision making at all levels;
- Safeguard species and habitats of principal importance and improve their management. Including the requirement on Welsh Ministers to prepare and publish a list of the living organisms and types of habitat which are of principal importance for the purpose of maintaining and enhancing biodiversity in Wales;
- Increase the resilience of our natural environment by restoring degraded habitats and habitat creation;
- Tackle key pressures on species and habitats;
- Improve our evidence, understanding and monitoring; and,
- Put in place a framework of governance and support for delivery

Part II (the action plan) was refreshed during 2020-21 and sets out how Wales will take action to meet address these six objectives, and in doing so meet Wales's commitment to the Convention on Biological Diversity and address the dual crises of biodiversity loss and climate change.

The NRAP and all its components tie-in closely with the duties and products of both The Well-being of Future Generations (Wales) Act 2015 and the Environment Act (Wales) 2016.

Biodiversity Deep Dive

In 2022 the Welsh Environment Minister led a Biodiversity Deep Dive working with a group of key experts and practitioners. The objective was to develop a set of collective actions to support nature's recovery in Wales. Target 3 of the Global Biodiversity Framework (GBF) – to protect and effectively manage at least 30% of our land, freshwater and sea for nature by 2030 – was selected as the strategic focus of the deep dive.

The resulting recommendations are a mixture of new action, scaling up and acceleration of existing schemes, and longer-term actions. This has now been developed into a comprehensive 30by30 framework for Wales, published in 2025. The 30by30 framework sits within the NRAP, and articulates the criteria for areas contributing to Target 3, confirming the role protected areas and Other Effective area-based Conservation Measures (OECMs) need to play to secure a resilient network of nature-rich spaces. Achievement of these actions will contribute to building resilient ecosystems with the protected sites in the National Site Network at the core.

Nature Networks Programme

The Nature Networks Programme (NNP) is a Welsh Government funded programme designed to improve the condition, connectivity, and resilience of designated sites across Wales, including SACs and SPAs. Aligned with the delivery of objectives and actions in the NRAP, significant funding has been invested in improving management for special features via the Nature Networks Programme. The programme aims to restore degraded habitats, facilitate species recovery, and promote functional ecological networks, all contributing to Wales's obligations under the Habitats Regulations.

NRW's strategic commitment to biodiversity

Biodiversity and ecosystem resilience have a vital role in the sustainable management of natural resources. NRW published a strategic steer for biodiversity to 2022 called Vital Nature in 2018. It established a high-level framework of actions for biodiversity in line with the NRAP. Through a series of goals and high-level commitments it showed how, working with others, NRW planned to deliver the biodiversity and ecosystem resilience duties.

Vital Nature was replaced as part of NRW's Corporate Plan to 2030: nature and people thriving together published in 2023, building on experience and learning over the last decade. The evidence base from SoNaRR 2020 and the State of Nature Report Wales, 2019 consistently underline how natural resources and biodiversity in Wales are in steep decline. The corporate plan well-being objectives include a commitment to improving the condition of features of terrestrial, marine and freshwater protected sites through using advisory and regulatory tools, financial incentives and undertaking monitoring to evaluate effectiveness.

Wider policy

Land management agri-environment schemes

Glastir was the sustainable land management scheme in Wales, introduced by the Welsh Government in 2012, and ending in December 2023. It was designed to support farmers and land managers in protecting and enhancing the Welsh countryside, particularly in ways that addressed environmental challenges like climate change, water management, and biodiversity loss. One of the key aims was to conserve and enhance biodiversity and protect habitats and species, including on SACs and SPAs.

The Habitat Wales Scheme was launched in 2024 to bridge the transitionary period between Glastir and the Sustainable Farming Scheme (SFS) due to commence in January 2026, by supporting the continuation of management on designated sites such as SACs and SPAs. An outline of the new Wales Sustainable Farming Scheme was published in 2024 with a SFS scheme description published in 2025, with the scheme planned to commence in 2026.

The Wales SFS is being designed to support ongoing sustainable production of food, to mitigate and adapt to climate change, maintain and enhance the resilience of ecosystems and the benefits they provide and to maintain and enhance nature. The SFS is built on three primary layers – Universal, Optional (payments for more complex or targeted actions) and Collaborative (designed for projects across multiple holdings at landscape or catchment scale). These actions are designed to deliver the Sustainable Land Management requirements under the Agriculture (Wales) Act including sustainable food production and improving ecosystem resilience.

Planning policy

Planning Policy Wales - Edition 12, published in 2024, sets out the planning policies relating to SACs and SPAs in Wales, embedding the Net Benefit for Biodiversity approach which applies to all development. It provides a strong updated policy framework for decision making and policy formulation within the planning system. A core principle embedded within the policy is the presumption against development within the boundaries of statutory protected sites.

Future Wales: The National Plan 2024, adopted in 2021, sets out the direction of Wales's development infrastructure to 2040. The plan includes specific policies on: Resilient Ecological Networks and Green Infrastructure, and the National Forest. It

has full development plan status and lower tier development and plans and decisions must be made in accordance with Future Wales.

The Clean Air Plan for Wales 2020

The Clean Air Plan for Wales aims to improve biodiversity by reducing air pollution through targeted actions such as stronger control of emissions from sectors like agriculture and transport and promoting nature-based solutions including tree planting. The plan supports the resilience of biodiversity and ecosystem health by establishing baseline indicators for air quality and biodiversity, enabling better monitoring of impacts and adapting actions to protect sensitive habitats. Clean Air Plan for Wales: Healthy Air, Healthy Wales | GOV.WALES

Welsh National Marine Plan

The Welsh National Marine Plan was adopted and published in November 2019 and sets out how Wales's seas should be sustainably used and managed. The plan contains a vision, objectives and a series of policies including those linked to marine protected areas. As part of the marine planning process Welsh Government have made available a Marine Planning Portal which allows users to view and understand spatial evidence relating to Welsh Seas (see section on Wales Marine Planning Portal).

1.4 Reporting requirements under Regulation 9A

Provision for reporting under Regulation 9A covers both the Habitats and Birds Directives, with distinct requirements for each. For habitats and non-avian species, Regulation 9A aligns closely with the structure of the Habitats Directive, requiring each UK country to report separately every six years on the implementation of measures taken to achieve Favourable Conservation Status for Annex I habitats and Annex II, IV, and V species. These reports follow the previous Article 17 guidance adopted by the European Commission and the Bern Convention, and are followed by a UK composite report within two years.

For birds, Regulation 9A includes more limited but specific provisions. Each country must report separately on the implementation of measures taken to give effect to Articles 2 and 3 of the Birds Directive, and provide information on provisions mentioned in Article 12. While the requirement to report on Favourable Conservation Status does not apply to birds, the Birds General Report summarises legal protections, conservation actions, and population trends for regularly occurring breeding and migratory bird species. Together, these reporting requirements ensure a comprehensive and country-specific assessment of biodiversity conservation under retained EU law.

1.5 Structure and format of this implementation report

This Wales Habitats Regulations 9A implementation report is organised to reflect both statutory requirements of Regulation 9A and the established UK/EU reporting framework used in previous Article 17 (Habitats Directive) and Article 12 (Birds Directive) reporting cycles. Under those earlier arrangements, each reporting round included a “General Implementation Report” and, for birds, a “Birds General Report.” While these terms may appear somewhat dated or technical in the context of a unified country-level report, they are retained here for consistency with previous reporting formats and to support alignment with future UK composite reporting.

Each continues to serve its original purpose: the General Implementation Report summarises measures that give effect to the provisions formerly set out in the Habitats Directive and highlights Wales’s achievements in implementing the Habitats Directive, including improvements to the National Site Network, delivery of major LIFE and nature recovery projects, enhanced biodiversity monitoring, and strengthened collaboration across sectors. The general birds report serves a similar role for the Birds Directive, summarising the legal protection of birds, key conservation actions, giving an overview of information on a Member State’s implementation and general measures taken under the Birds Directive in Wales.

The format of the General Implementation Report (GIR) follows the previous UK-wide report (see 2019 Article 17 GIR and the 2019 Article 17 GIR appendices). The format of the Birds General Report broadly follows the previous UK-wide report (see 2019 Article 12 General Report and the 2019 Article 12 General Report appendices).

1.6 Geographic scope and responsibilities

Prepared by Natural Resources Wales (NRW) on behalf of the Welsh Government, the scope of the assessment includes terrestrial, freshwater, and marine environments across Wales, with a particular focus on the National Site Network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). While the offshore implementation component is reported separately by JNCC, relevant information may be incorporated here to provide context.

2. General Implementation Report (GIR)

2.1 Main achievements taken for the purpose of giving effect to the Habitats Directive

This section briefly describes the main achievements under the Habitats Directive (92/43/EEC), during the 2019-2024 reporting period, as part of Wales’s country-level assessment under Habitats Regulations 9A. It places particular emphasis on the National Site Network, the UK's network of protected areas, formerly part of Natura 2000, which includes SACs.

This GIR complements the Conservation Status assessments of individual species and habitats in sections 5 and 6 of the summary report. Although it should be noted that the habitat and species feature assessments consider the totality of each species and habitat, both within the National Site Network sites and also in the wider countryside and marine environment, rather than an assessment of those features on SACs.

Wales has undertaken significant work to implement the objectives of the Habitats Directive over the past six years. The examples provided are not exhaustive but illustrate the work being undertaken.

Improved coherence of marine SACs within the National Site Network

Substantial progress has been made in recent years across the UK in the development of the marine SAC network, which is now nearing its completion through the formal designation process. NRW has published conservation objectives for marine SACs under their responsibility and has developed new approaches to conservation advice to better support management. Natural Resources Wales / Conservation advice for European marine sites (Reg 37)

See Section 2.3 for more details about marine SACs.

Improved management of SACs within the National Site Network

Nature Networks Programme: Strategic Investment in SAC Management

A major area of activity has been to improve the management of habitats and species listed under the Habitats Directive in an effort to secure favourable conservation status of the special features of Wales's network of SACs. Through its funding of management action the Nature Networks Programme (NNP) has contributed to Wales's obligations under the Habitats Regulations. The programme operates through two main funding delivery mechanisms:

- Direct delivery on protected sites through NRW.
- Capacity building in community, skills and partnership growth via the National Lottery Heritage Fund (NLHF) on behalf of Welsh Government who then grant aid this through a competitive process to partnership projects across Wales.

To date, approximately £54 million has been awarded through the Nature Networks grant fund via competitive annual calls, supporting projects that contribute to strategic NRAP outcomes—particularly those focused on reversing biodiversity loss, building adaptive capacity, and strengthening stakeholder and community engagement in conservation delivery. Many of these projects have directly contributed to improving the condition of SAC features and enhancing the coherence of the National Site Network.

The programme prioritises actions that benefit SAC features, including habitat restoration, species recovery, and improved site management. NRW's Nature Networks Programme funding is broadly split between marine and terrestrial SACs,

with a portfolio of current projects targeting key pressures and risks to these protected areas. Development of upcoming projects and programme working towards the wider context of Global Biodiversity Framework (GBF) targets is to be completed.

In the marine environment, SAC-focused projects include the *Recolonisation of Seabirds on Rat-Free Islands*, *Marine INNS Biosecurity Plan Implementation*, and *Improving Marine Conservation Advice II*, which covers cross-border SACs and SSSIs. Other initiatives include *Coastal Squeeze on MPAs II*, *Loughor and Burry Inlet Water Quality Improvements*, and a pilot project evaluating the impacts of coastal landfill sites on SAC features in the Dee Estuary. Work is also underway to reduce nutrient inputs into SAC-linked waterbodies and to expand marine litter removal efforts, including subtidal litter management and derelict boat clearance.

On terrestrial SACs, the programme supports targeted habitat management through Land Management Agreements and work on National Nature Reserves. Key actions include restoration of sand dune systems, such as those at Morfa Harlech and Morfa Dyffryn, and interventions to improve the condition of unimproved lowland grasslands. Efforts also focus on addressing atmospheric nitrogen impacts and supporting the recovery of priority species, including curlew and rare invertebrates.

In addition to ecological improvements, the Nature Networks Programme supports a wide range of capacity-building and engagement activities. Through the grant funding administered by the NLHF projects are encouraged to engage local communities, support training and apprenticeship programmes, promote inclusion, and explore opportunities for financial resilience and green finance. These efforts aim to increase people's involvement with nature and help build resilience in their local ecosystems. Projects are expected to engage locally, upskill local people, and procure locally where possible—supporting local economies through programmes of capital works. In this way, the programme contributes not only to the recovery of protected sites and resilient ecological networks, but also to broader social and economic outcomes.

LIFE projects and After LIFE Plan implementation

See Bird general Report for information on LIFE projects relevant to birds.

Sands of LIFE (SoLIFE) project

Sands of LIFE was a £5m project that ran from 2019 to 2024. Through a range of conservation action it restored over 2400 hectares of sand dunes, improving the condition of features on four SAC sites in Wales. Following NRW's scientific advice regarding its importance, the Cabinet Secretary for Environment approved the designation of fixed dune grassland (H2130), a Habitats Directive Annex I habitat, on Morfa Harlech a Morfa Dyffryn as an additional SAC feature in May 2024.

Welsh Raised Bogs LIFE Project

The New LIFE for Welsh Raised Bogs project was a £5.2m scheme, funded by the EU LIFE fund with support from Welsh Government, which ran from 2017 to 2024. The project delivered peatland restoration across six raised bog SAC sites and was

managed by NRW with support from Eryri National Park. Overall, 998 hectares of raised bog habitat was improved.

Celtic Rainforest

The Celtic Rainforest Wales LIFE Project is a £9m landscape-scale rainforest project led by Eryri National Park, in partnership with RSPB Cymru and Coed Cadw. It is the largest rainforest restoration programme of its kind in the UK. Running from 2018 to 2027, the project focuses on protecting the four temperate rainforest SACs across Wales from three major threats: Invasive Non-Native Species (INNS), inappropriate grazing and browsing and ancient woodland restoration. The project is removing non-native tree species that have been planted on ancient woodland sites (plantations on ancient woodland sites - PAWS). For more information including the State of Wales Rainforests Report 2024 visit Celtic Forests Wales.

LIFE Dee River project

The LIFE Dee River project is an NRW led £7m project running from 2019 to 2026, working together with four key partners including Dŵr Cymru Welsh Water, Eryri National Park, River Restoration Centre, Environment Agency, to restore the features of the River Dee and Llyn Tegid SAC by:

- Removing barriers to fish migration
- Improving habitats by increasing woody debris and boulders in-river
- Working with farmers to reduce nutrients and sediments entering water courses

LIFE Quaking Bogs

The LIFE Quaking Bogs project is an NRW led £5M EU and WG funded project running from 2022 to 2026. It aims to bring the features of SAC Quaking bog and Transition mires in Wales into better condition by:

- Addressing hydrological issues (usually drainage resulting in drying out, but in some cases too much water) on sites
- Reducing nutrient enrichment
- Reducing biomass accumulation (insufficient or inappropriate grazing resulting in a build of vegetation, including scrub), by mowing and re-introducing grazing
- Tackling Invasive Alien Species
- Reducing fragmentation of these habitats which has led to isolation and loss of resilience, as epitomised by the decline of the marsh fritillary butterfly.

Much of the work is focused on Crymlyn Bog, near Swansea, with other sites in Preseli (Pembrokeshire), Rhosgoch (Powys), Cors Caron (Ceredigion) and Eifionydd (Gwynedd). Key partners include Eryri National Park, Pembrokeshire Coast National Park and the National Trust.

Four Rivers for LIFE

Four Rivers for LIFE is an NRW led £10m river restoration project running from 2021 to 2026. It aims to bring the SAC features of the Cleddau, Teifi, Tywi and Usk SACs into better condition. It is doing this by:

- Removing barriers to fish migration
- Improving habitats by increasing woody debris and boulders in-river and creating or enhancing river corridors.
- Working with farmers to reduce nutrients and sediments entering water courses
- Working with communities to reduce invasive alien species and plastic

The Four Rivers for LIFE key partners are Dŵr Cymru Welsh Water, Coleg Sir Gar, River Restoration Centre and the Woodland Trust.

Corsydd Calon Môn

Corsydd Calon Môn Project is a co-designed partnership led by the North Wales Wildlife Trust tackling the long-term issues and opportunities associated with the Anglesey and Llyn Fens. The Anglesey and Llŷn Fens LIFE Project ended in 2015 which effectively reset the condition of much of the Fens, however, long-term catchment pressures and behaviours are still impacting the condition of the sites and features. Working together with a number of partners – including the local Wildlife Trust, farming unions, and Dŵr Cymru Welsh Water – the project aims to tackle water quality, water quantity, peat condition, species and community wellbeing. Corsydd Calon Môn is currently in a two-year development phase, funded by the Esmée Fairbairn Foundation and National Lottery Heritage Fund.

National Peatland Action Programme (NPAP)

The National Peatland Action Programme (NPAP) is a ten-year initiative (2020–2030) led by NRW and funded by WG , aimed at restoring and sustainably managing Welsh peatlands to address both climate and nature emergencies.

The programme targets six key areas of degradation—such as erosion, drainage, and afforestation—and works across public and private land to deliver up to 1800ha restoration annually by 2030. For our peatland Special Areas of Conservation (SACs) restoration efforts are aligned with safeguarding high-value habitats and species. SACs like the Migneint in Gwynedd and other sites within Eryri National Park, Bannau Brycheiniog National Parks and wider landscapes have seen targeted hydrological restoration and strategic funding allocations. These efforts not only enhance biodiversity but also contribute significantly to carbon sequestration and water regulation, reinforcing the ecological integrity of Wales' most sensitive peatland landscapes.

Dynamic Dunescapes

The Dynamic Dunescapes project restored sand dunes across England and Wales for the benefit of people, communities and wildlife. Management activity was carried out on sand dunes in Anglesey, Gwynedd, Neath Port Talbot and Swansea, including on some SACs. The project was launched in 2020 and ended in 2024.

SAC Rivers Project

NRW established the SAC Rivers project to address water quality management and regulatory issues and risks for the nine SAC Rivers in Wales, namely; Cleddau, Eden, Gwyrfai, Teifi, Tywi, Glaslyn, Dee, Usk and Wye. The project's objectives include:

- Working collaboratively to develop new policy, positions, advice and tools to protect and improve water quality in SAC rivers.
- Understanding water quality across the SAC rivers and identifying where improvement measures are needed.
- Ensuring that there is an appropriate programme for gathering and assessing evidence of water quality in the SAC rivers

Wales Resilient Ecological Network

The Wales Resilient Ecological Network (WaREN) Project (2019- ongoing), currently led by the North Wales Wildlife Trust was established to develop a framework for tackling invasive alien species across Wales creating linkages between stakeholders, sharing best practice and increasing awareness. SACs such as River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid are benefitting from coordinated action through WaREN, which supports Local Action Groups and volunteer networks in tackling invasive species.

Stitch in time project

The Pembrokeshire Coast National Park's Stitch in Time projects (2015-ongoing) tackles plant invasive non-native species (INNS) at a catchment scale across the National Park including a number of SACs. Throughout 2023 and 2024, the Stitch in Time project has been funded by the Heritage Lottery Fund.

Invaders of the National Park

The invasive species project 'Invaders of the National Park' ran from April 2018 until January 2020. The project established a pilot project for surveying and controlling INNS in the Usk and Tawe River catchments in the Bannau Brycheiniog National Park.

Upper Wye Catchment Restoration Project

The Upper Wye Catchment Restoration Project, running from 2024 to 2029, is an NRW project funded by Welsh Government to restore the health of the upper reaches of the River Wye. The project aims to protect species and enhance habitats through addressing a range of pressures by working alongside landowners, farmers, communities and local organisations to:

- Restore river corridors by fencing and planting buffer zones
- Create habitat in the river by introducing large woody material
- Install measures to reduce pollution and keep soil on the land

- Install measures to slow the flow of overland water, encouraging it to soak into the soil
- Restore and reconnect floodplains
- Remove or adapt man-made structures that obstruct fish and gravel movement
- Remove invasive non-native species that contribute to bank erosion and out-compete our native plants

Inland Fisheries Habitat Restoration Grant & work with the Rivers Trusts

NRW is working with both Afonydd Cymru and the individual Rivers Trusts of Wales to deliver environmental gains on Welsh rivers. Since 2019 NRW have provided funding support on an annual basis via the Strategically Allocated Fund (SAF) mechanism. Typically, grant aid of circa £1M per annum has been distributed, apportioned to the Rivers Trusts using an allocation model using multi-factor criteria. Much of the work delivered by the Rivers Trusts benefits either designated species or specific designated sites within Wales. NRW is currently developing a GIS reporting tool (Fisheries Geoportal) that captures the extent of this delivery by the Rivers Trusts. Eventually this will also capture NRW's delivery via both the Sustainable Fisheries Programme (SFP) and the Nature and Climate Emergency (NaCE) capital programme, an internal funding mechanism used by NRW to support nature and climate-related capital projects.

Clwyd Forum

Dŵr Cymru Welsh Water funded the Clwyd forum (2023-ongoing) to undertake a catchment level project to work collaboratively with stakeholders to look for innovative ways and methods to control and manage INNS within the Clwyd Sustainable Management of Natural Resources (SMNR) pilot catchment area. The catchment contains a number of woodland SACs located adjacent to watercourses. Tackling Invasive Species on the Afon Clwyd — North Wales Rivers Trust

Freshwater Pearl Mussel Projects

In 2018, NRW and partners (Eryri National Park, Freshwater Habitats Trust and the Freshwater Biological Association) established the Freshwater Pearl Mussel (FWPM) Strategy to provide a focus and action plan for this critically endangered species. Since 2018, several key actions have been achieved: purchase of land and subsequent restoration works to re-introduce previously dredged out boulders alongside the introduction of gravels, habitat restoration at other key sites including Afon Ddu SSSI and captive breeding of juvenile FWPM, and re-introduction to the Afon Eden SAC.

The Afon Eden SAC Sustainable Management Scheme was a project managed by Eryri National Park from 2018 to 2021 to continue the work of the Prioritised Improvement Plan to address in stream and catchment wide issues impacting on FWPM in the Afon Eden.

Building on the work of the Pearls in Peril LIFE+ Project, the North Wales Rivers Trust launched a project in 2023 with funding from Welsh Government and NRW , Eryri National Park and Local Nature Partnerships Cymru. The project focuses on the recovery of FWPM on the Afon Eden by restoring and rewilding the catchment.

Marine INNS management and Biosecurity

As part of the marine Nature Networks programme (see NNP section), NRW have been working with specialist consultants to produce a number of documents to provide a basis for biosecurity planning for marine SACs in Wales as well as guidance for pathway management. The project has provided species action plans (SAPs) for a number of species including slipper limpet, Chinese mitten crab and carpet sea squirt. Pathway Action Plans (PAPs) have been produced for key pathways such as recreational boating, fishing, commercial shipping and aquaculture. Biosecurity Action Plans (BAPs) have been produced for four marine sites in Wales and NRW are working with Natural England on the cross-border sites. All SAPs, PAPs and BAPs will be published and externally available in 2025-2026. Cross-border BAPs for the Dee Estuary and Severn Estuary are already published.

Marine conservation and biodiversity

In 2016 a Welsh Government task and finish group developed a list of marine habitats and species most suitable for enhancement and restoration. This work encouraged the development of various projects to enhance marine biodiversity;

- The Wales Native Oyster Restoration Project led by NRW was a four-year European Maritime and Fisheries Fund project (2019-2023) that investigated the feasibility of restoring the native oyster in the Milford Haven waterway. The Natur am Byth! project is building upon this work further within Marine Treasures which also includes enhancement actions for seagrass and pink sea fans.
- In 2021, NRW commissioned an evidence report (Armstrong *et al.* 2021) to map the restoration potential of five priority habitats and species across Wales and identify where suitable environmental conditions may exist to support restoration activities for;
    - Saltmarsh and mudflats
    - Native oyster *Ostrea edulis*
    - Seagrass *Zostera marina*
    - Horse mussel *Modiolous modiolous*
    - *Sabellaria alveolata*
- Project Seagrass have a series of seagrass restoration projects underway in Wales. Most projects have been aimed at restoring *Zostrea marina* but they are now placing some focus upon *Zostrea noltei,* supporting the delivery of Habitat Regulation 9A by contributing to the restoration of the H1160 Inlets and bays habitat.
- The Conwy Wild Oysters project is seeking to create native oyster habitat in the Conwy Bay area and have secured additional funding through the Nature Networks Programme (see NNP section above) to identify and design restoration opportunities in the Menai Strait and Conwy Bay SAC.

Given the increasing interest in enhancement activities there is now a suite of new evidence and methodology to be considered. In response to this, NRW are working with The Crown Estate to revisit and update the work completed in 2016. The outputs of the review will be used to consult with stakeholders and build consensus around which habitats and species are the priority in Wales. Further habitat suitability and enhancement potential maps will be commissioned based on these discussions.

Preventing Aliens Taking Hold (PATH): Building resilience within the River Dee SAC

North Wales Wildlife Trust is continuing its on-going management of plant INNS within the Upper and Middle catchment of the River Dee and Bala Lake SAC. The current PATH: Building resilience within the River Dee SAC project will address the impact of the footpath network as a pathway of spread. The project will run from 2022 to 2025.

Natur am Byth! Saving Wales' threatened species

The Natur am Byth partnership' unites nine environmental charities with NRW to deliver a natural heritage and outreach programme to save species from extinction and reconnect people to nature. The principal funder is the National Lottery Heritage Fund, with key support from the Welsh Government and other charitable foundations and donors.

Natur am Byth is working to safeguard 67 target species within 12 place-based project areas, working hand-in-hand with communities and landowners. The partnership is also creating a new wave of nature ambassadors and delivering engagement activities that celebrate 'Cynefin' – the distinct natural heritage that underpins Welsh communities.

The current funded delivery phase will run until summer 2027 and uses an adapted version of the internationally recognised species recovery curve to assess the impact of programme activity on the 67 target species. A number of these species are also included in the Habitat Regulations 9A assessments, including Barbastelle (*Barbastella barbastellus*), Lesser Horseshoe Bat (*Rhinolophus hipposideros*), Shore Dock (*Rumex rupestris*), Desmoulin's Whorl Snail (*Vertigo moulinsiana*), Geyer's Whorl Snail (*Vertigo geyeri*), Southern Damselfly (*Coenagrion mercuriale*), Fen Orchid (*Liparis loeselii*), Narrow-mouthed Whorl Snail (*Vertigo angustior*), and Sand Lizard (*Lacerta agilis*). This overlap provides a useful point of connection between strategic species recovery efforts and the statutory reporting requirements under Regulation 9A.

Assessing benefits and services provided by the National Site Network

Several strands of work have contributed to the assessment of the benefits and services provided by the UK SAC Network. In Wales, the focus is on wider well-being benefits provided by ecosystems. Recent work includes the following.

The production of the State of Natural Resources Report 2020 (SoNaRR 2020) and an interim report in 2024 (SoNaRR: Interim report 2024). The most recent full report will be published in December 2025, SoNaRR 2025. See section 1.3 of this document for details on the State of Natural Resources Report.

A study was commissioned to increase understanding of the blue carbon resource in Wales' SAC network by quantifying the contribution of the network to carbon storage and sequestration: The Blue Carbon Potential of the Marine Protected Area Network in the Welsh Marine Environment

The aim of this study was firstly to investigate the currently feasible management actions that will promote carbon storage and sequestration in Welsh SAC Annex 1 habitat features and secondly, the implementation of possible management opportunities for blue carbon within existing legislation and policy frameworks was reviewed. Understanding how management of the Welsh MPA network can contribute to the protection and enhancement of blue carbon

Marine & coastal environments and well-being: a summary of the evidence base This report reviews the evidence base and sets out recommendations for actions to improve the cross-linkages between NRW's marine programmes and supporting wider well-being benefits for communities in Wales.

Initiatives that combine the National Site Network with the local economy

A wide variety of initiatives aimed at building consensus and connecting the National Site Network with economic activity have been progressed within Wales. For example:

Wales Coast Path

The Wales Coast Path, which opened in May 2012 covering 870 miles, enables the public, both locals and visitors, to enjoy the coastline of Wales. 69% of the coast of Wales falls within a Marine Protected Area (MPA) principally SACs, such as the Dee Estuary, Severn Estuary, Cardigan Bay, Pembrokeshire Marine Special Areas of Conservation (SAC) | DataMapWales. The path passes through or adjacent to a number of SACs and SPAs and brings economic benefit to coastal communities. NRW works in close partnership with coastal local authorities and key partners like Visit Wales and Cadw on national policy, marketing and communications, monitoring and distribution of grant aid to the coastal local authorities that undertake development and maintenance of the route. Funding principally comes from Welsh Government and the local authorities. A free comprehensive business marketing toolkit has been developed to help businesses attract more walkers to the path in their area.

Dee Estuary Cockle Fishery

The management of the Dee Estuary Cockle Fishery has provided a sustainable fishery since 2008 on the border between England and Wales in the River Dee Estuary. The fishery exists in a region protected by SAC and SPA designations. The

fishery provides economic income to 54 licenced harvesters and their associated wholesalers and harvesters. As well as maintaining the tradition of this style of fishing in the region and providing income, careful management of the resource has enabled the continuing favourable status of the protected species surveyed within the estuary and repeat certification by the Marine Stewardship Council (MSC).

Wye and Usk Foundation

Wye and Usk Foundation (WUF) carries out numerous in stream and catchment wide interventions to improve river habitat quality including INNS control. Since 1996, over two hundred “easements” on both rivers have been completed that range from unblocking timber jams and removing old weirs to the construction of complex fish passes. In total, WUF have restored full access to over 800km of the Wye and Usk.

National Lottery Heritage Fund Nature Networks Programme (NLHF NN)

One of the key programmes contributing to the integration of protected sites with local economic activity is the Nature Networks Programme. Delivered through both NRW and the National Lottery Heritage Fund, it supports projects that engage communities, build skills, and promote financial resilience. These outcomes are explored in more detail in the section on Nature Networks Programme: Strategic Investment in SAC Management.

Local Places for Nature

Welsh Government established Local Places for Nature (LPfN) in 2020 to create ‘nature on your doorstep’. The idea was to:

- create areas that support nature within communities, in particular urban and peri-urban areas
- encourage a greater appreciation and value of nature
- create more green spaces, honouring our commitment to do so
- support wider biodiversity objectives

Enabling Natural Resources and Well-being Scheme

The Enabling Natural Resources and Well-being (ENRaW) Scheme was a WG grant program that ran from 2019 to 2023, supporting projects aimed at improving residential areas and delivering benefits to people, businesses, and communities across Wales. The scheme aligned with the Welsh Government's strategic priorities and promoted the Sustainable Management of Natural Resources (SMNR). The scheme contributed to broader Welsh Government strategies, including those related to climate change, biodiversity, and well-being. A summary of the scheme’s impacts and achievements is available in the Final Evaluation Report of the ENRaW Grant Scheme.

Integrated Natural Resources Scheme

The Integrated Natural Resources Scheme (INRS) is a Welsh Government grant programme launched in 2024 under the landscape-scale land management theme. It aims to enable farmers, foresters, land managers and others to work collaboratively at a landscape, catchment or pan-Wales level to deliver actions that maintain and enhance the resilience of ecosystems and the benefits they provide. INRS is designed to fund nature-based solutions and strengthen the resilience of Wales's protected sites network.

Positive changes in public acceptance towards biodiversity protection

Public engagement has become an increasingly important component of biodiversity protection in Wales, with a growing emphasis on empowering communities to participate in nature recovery and stewardship. Alongside targeted initiatives such as Nature and Us and the Ocean Literacy Strategy detailed below, other programmes—such as the Nature Networks Programme (see NNP section) —have also contributed to this shift. These efforts, described elsewhere in this report, demonstrate how public involvement in local conservation activity, skills development, and decision-making is helping to build long-term support for biodiversity protection and the sustainable management of protected sites.

Nature and Us

This initiative facilitated by NRW took a phased approach to engaging the public between February 2022 and March 2023. The aim was to develop a shared vision for the year 2050 and consider the changes we need to make leading up to 2030 and 2050, as individuals and as a country. Nature and Us collated views from thousands of people all over Wales as part of a national conversation. A convened Citizens' Assembly was then asked to consider those views, and helped to create 'The Nature and Us Vision for Wales 2050: Society and nature thriving together'.

Ocean Literacy

Wales is the first country in the UK, and the second in the world, to publish an ocean literacy strategy. Underpinned by evidence collated through two UK level ocean literacy surveys Ocean Literacy in Wales: Headline Findings Report, the vision of the strategy is to ensure that 'people are connected to, understand and value our coasts and seas in Wales, making informed decisions that supporting a safe and sustainable relationship between them'.

Improved co-operation between authorities, nature conservation and other groups

A series of measures have been undertaken to improve co-operation between authorities, nature conservation and other groups, for example:

Wales Biodiversity Partnership (WBP)

The Welsh Government fund and NRW host technical staff for the Wales Biodiversity Partnership (WBP). The WBP is made up of key individuals and organisations from the public, private and voluntary sectors. The WBP provide leadership and expertise on priorities for action on biodiversity and promote and monitor the delivery of those. The WBP regularly hold conferences as flagship events for people across the country.

Wales Coasts and Seas Partnership (CaSP Cymru)

Welsh Government manage this strategic partnership working collaboratively to deliver more resilient coasts and seas. The partnership is actively pursuing work to build ocean literacy in Wales; explore opportunities for blue investment and to build the capacity of coastal communities. These enabling actions will support delivery of wider partner objectives for example cohesive coastal communities; a well managed Marine Protected Area network and sustainable development through an effective marine planning system. Wales Coasts and Seas Partnership (CaSP Cymru) | GOV.WALES

Welsh Marine Protected Area (MPA) Management Steering Group

In 2016, the Welsh Marine Protected Area (MPA) Management Steering Group was set up to improve management across the network of MPAs in Wales, including the now called National Site Network. The steering group is made up of representatives of the main management authorities in Wales. The group have produced an MPA Network Management Framework and Network Action plan for Wales as well as an annual report to report progress on the action plan. A number of reports have been produced and a grant scheme has been developed to support action.

River Basin Management Plans

As Wales continues to harmonise requirements of the Habitats Directive and the Water Framework Directive, River Basin Management Plans contribute to relieving the pressures facing Wales' water environment. Rivers, lakes, wetlands, ground waters, estuaries and coastal waters, including those in protected areas all fall under these plans which are updated on a six-yearly cycle and are prepared in consultation with a wide range of organisations and individuals. The approved River Basin Management Plans and supporting documents are available on NRW's website:

- Natural Resources Wales / Dee and Western Wales river basin management plans 2021-2027
- Natural Resources Wales / Severn river basin management plan 2021-2027

Research and survey

The list below is not exhaustive but illustrates research and survey work that has been undertaken. Research and survey activities underpin the achievements reported under the Habitats Directive by providing the scientific evidence needed to

assess conservation status, guide management actions, and monitor the effectiveness of measures across Wales's terrestrial and marine environments.

UK Environmental Change Network

The UK Environmental Change Network (ECN) is a UK surveillance system established as a national capability resource to provide long-term high quality observations across a range of UK ecosystems. It provides living laboratories delivering a holistic multidisciplinary view of biodiversity change across the UK as climate change and pollution impacts evolve. The network level surveillance information is of wide significance, contributing information on broad multiple drivers of environmental change, including climate change.

The ECN Yr Wyddfa/Snowdon site, situated within the Eryri/Snowdonia SAC, is Wales's sole terrestrial contribution to the network. Set up in 1995 it is dedicated to investigating long-term ecosystem dynamics and provision of environmental change evidence as Wales's contribution to the UK-wide network. This site is unique in its potential to provide information from a westerly upland site at the southern limit for a range of species and habitats. It represents the major high profile long-term upland surveillance site within Wales and one of only four co-located terrestrial and freshwater ECN surveillance sites for the UK.

The maintenance of a Welsh upland site also provides a surveillance infrastructure onto which other surveillance networks can be built using both the hard infrastructure and the long-term data to provide context. These additional networks include the UK Eutrophying and Acidifying Pollutants Network (UKEAP), National Ammonia Monitoring Network, UKEAP Precip Net, UKEAP Rural NO2 network, Long Term Ecological Research Network (LTER) Europe & Integrated European Long-term Ecosystem critical zone and socio-ecological Research (eLTER) in addition to terrestrial surveillance schemes.

Site Nitrogen Action Plans (SNAPs) for Native Woodland sites in Wales

The Site Nitrogen Action Plans (SNAPs) for Native Woodland Sites in Wales report by UK Centre for Ecology & Hydrology outlines a framework for assessing and mitigating atmospheric nitrogen impacts on sensitive woodland habitats. It identifies local agricultural ammonia emissions as the main source of excess nitrogen and recommends targeted off-site mitigation measures to reduce deposition.

Project to monitor and reduce ammonia emissions from agriculture

NRW has undertaken a Project to monitor and reduce ammonia emissions from agriculture funded by the Nature Networks Programme. The project aims to monitor and investigate reducing ammonia emissions particularly near sensitive habitats. By using on-farm sensors and developing Site Nitrogen Action Plans, the project supports farmers in adopting sustainable practices to protect air quality and biodiversity.

Terrestrial and freshwater evidence reports

A series of terrestrial and freshwater habitats and species reports have been published many of which are linked to our SAC network and improving knowledge of the marine habitats and species of Wales. Natural Resources Wales / Publications, evidence and research on freshwater and terrestrial habitats. With specific reference to SACs, the following reports highlight efforts to investigate and generate evidence from which to design appropriate interventions for managing and improving features:

- Evidence Report No. 849 River Habitat Survey (RHS) and Plant Community surveys of the River Wye SAC (Wales)
- Evidence Report No. 878 Investigation of the historic extent of floodplain meadows in three Welsh catchments: Dee, Usk, and Teifi
- Evidence Report No. 715 Large Heath Butterfly monitoring within Cors Fochno SAC, 1986 to 2022
- Evidence Report No. 732 Ditrichum plumbicola survey of Gwydyr Forest Mines SAC 2024
- Evidence Report No. 739 Eryri snowbed bryophyte monitoring 2023
- Evidence Report No. 879 A Survey of the Bryophytes of the Montane Lakes of Eryri

Marine and coastal evidence reports

A series of marine and coastal evidence reports have been published many of which are linked to our SAC network and improving knowledge of the marine habitats and species of Wales

Benthic features: New evidence has been collected to improve our baseline understanding of a number of Annex 1 marine habitats in Wales, including biogenic reef surveys (notably *Modiolus modiolus* and *Sabellaria spinulosa* reefs) alongside routine MPA monitoring (including a number of new evidence reports relating to benthic habitats around Skomer MCZ and fragile sponge and anthozoan communities off Anglesey (Northen and Doggett, 2023)). Opportunities for restoration of marine and coastal habitats in Wales have also been investigated (Armstrong et al., 2021). A number of evidence projects have been undertaken to assess the impacts of pressures arising from human activities on Annex 1 habitats in Wales, specifically including options for management of bait digging (West et al., 2022), investigating the impacts of landfill sites at the coast on MPAs (Robbins et al., 2023) and identifying area of seabed vulnerable to anchoring and mooring (Grant, 2021). The potential impact of marine invasive species on MPA features has also been assessed to inform the development site-based pathway action plans (Tillin et al., 2021). Recent studies on climate change include assessing the impacts of climate change pressures on Annex 1 habitats (Oaten et al. 2021, available from NRW on request) and understanding how management of the Welsh MPA network can contribute to the protection and enhancement of blue carbon (Robbins et al., 2022).

Marine mammals: Several reports and publications have been based on long term data on grey seal ecology from inside and outside of Welsh MPAs: Bull et al 2021; Langley et al 2020; Robinson et al 2023. Comprehensive reviews of noise

disturbance to marine mammals and regulation of underwater acoustic surveys affecting marine species have been produced. NRW commissioned analyses of Harbour Porpoise strandings on the west coasts of UK, focusing on Wales. Additionally, in 2023, a significant study was published called the Modelled Distributions and Abundance of Cetaceans and Seabirds of Wales and Surrounding Waters on the sightings of 12 whales, dolphins, porpoises (cetaceans) and 28 seabird species in the seas. It represents the largest collation of survey data for these taxa in Welsh seas using data captured from three decades of dedicated surveys. The work provides a critical baseline of species distribution, densities (individuals/km^2) and seasonality, which will be used as a key resource for conservation advice, as well as for marine planning and development.

Coastal Squeeze: A major project has been undertaken to improve our understanding of the likely scale of deterioration of Marine Protected Area features due to coastal squeeze (Oaten et al 2024a, Oaten et al 2024b).

Research related to invasive non-native species

A series of marine invasive species reports have been published which helps us understand the impact of these species on European Marine Sites in Wales.

Killarney Fern confidential report

A strictly confidential report Killarney fern: A review and analysis of the sporophyte generation of the Killarney fern, *Vandenboschia speciosa* (Willd.) Kunkel (syn. *Trichomanes speciosum* Willd.) in Wales was written in 2017, with the survey work mostly completed between 2013 & 2017. Visits to all six known localities of the sporophyte in Wales from 2021 – 2025 suggest the extent and colony size has not changed significantly since Rumsey surveys in 2016 & 2017.

Increased availability of information

An underpinning mechanism to increase engagement, improve management, and enhance cooperation is to improve the availability of information. The following provides examples of how information has been made more available, both to professionals and to the public, helping to support more informed, transparent, and effective management of sites and the wider National Site Network.

Priority Ecological Networks in the Terrestrial Environment

Priority Ecological Networks (PENs) in the terrestrial environment are versions of the all-Wales habitat networks that show areas of habitat connectivity between SACs, SPAs, Ramsar sites and Sites of Special Scientific Interest. The maps provide a framework to inform the location of action to build functional resilient ecological networks based on the most important places for biodiversity and are available for Native woodland; Semi-natural grassland; Heathland; Bog; Fen and Sand Dune. Typical actions would be habitat improvement, restoration, or creation, located within the boundaries of a PEN, or situated at its margins to consolidate, extend, or link different PENs. The PENs datasets are hosted on DataMap Wales. These are a

key evidence base for project development in the Nature Networks Programme to contribute to Wales' ambition to achieve 30 by 30.

Terrestrial and freshwater Resilient Ecological Networks: a guide for practitioners in Wales

In 2022 NRW published a practitioners' guide with a three-step decision support framework for designing Resilient Ecological Networks (RENs) based upon the principles of the sustainable management of natural resources (SMNR). There are links to a wide range of resources and checklists at every step with clearly defined key tasks. The role of core areas (such as SACs and SPAs) and the intervening mix of land-uses in RENs are described simply. Ecological "rules of thumb" and directions of travel for building resilience are provided to help stakeholders and practitioners to identify priorities and actions. Stakeholder involvement is fundamental to the long-term existence and maintenance of RENs, so advice is offered on how to support their participation. The NLHF NN programme has the contribution to RENs through improved condition and connectivity of protected sites and their features as a core outcome and this guidance is provided to applicants.

Invasive Non-Native Species (INNS) Portal

The Invasive Non-Native Species (INNS) Portal available on the National Biodiversity Network (NBN) Atlas.

Wales provides a facility to download, view, search over 350 INNS of interest to Wales. Species include those listed under EU and national legislation and those of policy and practical interest. This system facilitates monitoring of the spread and impact of INNS including across protected sites in Wales.

DataMap Wales

Since February 2023 DataMap Wales serves as a source for public sector data, providing a shared data platform to members of the public and public authorities. This is a key data source reference for the projects developed and delivered under many grant funding streams such as the Nature Networks Programme (see NNP section above).

List of priority marine invasive species

To aid management of marine non-native species, Wales has produced a list of priority marine invasive species which categorises marine non-native species as high, medium or low risk and explains their impact.

Marine and coastal evidence priorities

In Wales, NRW has identified priority evidence needs relating to marine biodiversity work which includes a list of high priority projects which will improve our understanding of marine biodiversity.

Wales Marine Planning Portal

The Wales Marine Planning Portal allows anyone to view maps online showing the distribution of human activities and natural resources in Welsh seas. The portal is an interactive planning tool that is intended to support the marine planning process by: raising awareness and understanding of the marine data that is readily available for Welsh seas, providing an understanding of the marine planning evidence base currently available, and providing interested parties with the opportunity to comment on the evidence base and the need or availability of further spatial evidence.

Marine Developer Guidance

NRW has produced marine and coastal guidance to support developers and stakeholders in understanding the environmental implications of marine development proposals. This guidance is intended to help avoid adverse effects on Welsh Marine Protected Areas (MPAs) and supports the sustainable management of the marine environment and natural resources of Wales.

NRW is consulted by licensing authorities and developers for expert advice on the likely environmental effects of marine and coastal activities. Their guidance is proportionate to the risk posed by a given plan or development and is based on sound science and the best available evidence. By making this information publicly accessible, NRW enables developers to consider key environmental issues and opportunities at an early stage in the planning process.

This increased availability of guidance and supporting evidence helps ensure that development proposals are environmentally informed and consistent with the objectives of the Welsh National Marine Plan (see section on Welsh National Marine Plan). NRW's approach also reflects a commitment to improving the marine evidence base through collaboration and proactive research.

The marine development guidance, along with related evidence reports and planning resources, is available via the NRW website.

2.2 General information sources on the implementation of the Habitats Directive

General information on the Habitats Directive

This section provides links to key sources of general information on the Habitats Directive and its implementation across the UK and in Wales. These resources offer background on the legislative framework, previous reporting cycles, and the roles of UK and Welsh bodies in delivering site protection and conservation measures. They include UK-level guidance and reporting from JNCC, as well as Wales-specific information from NRW and the Welsh Government. Following the UK's departure from the European Union, the reporting requirements of the Habitats Directive have been retained in domestic law through amendments to the Conservation of Habitats and Species Regulations 2017, including Regulation 9A in Wales.

Recommended sources include:

- JNCC – Habitat Regulations Reporting
- JNCC - UK offshore implementation of the Habitats Directive
- JNCC – Previous 2019 Article 17 reporting
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019
- Natural Resources Wales – Sites protected by European and international law
- Welsh Government – Marine conservation and biodiversity

Information on the National Site Network (SAC and SPA)

The JNCC publishes the UK National Site network (SAC and SPA): site summary details spreadsheet on its website. This resource, last updated in April 2025, is regularly revised to reflect changes such as the addition of new features, boundary modifications to existing SACs and SPAs, and the designation of new sites.

For Wales-specific information, NRW hosts the *Register of European Sites* on behalf of Welsh Ministers via its Find protected areas of land and sea webpage. NRW also provides comprehensive documentation for each SAC and SPA in Wales, including register entries, boundary maps, core management plans, and management unit maps.

In addition, the JNCC publishes standard data forms for all Special Areas of Conservation and List of UK SPAs, including those that cross the England–Wales border, ensuring consistent and accessible information across the UK.

Monitoring schemes

Monitoring provides a vital source of evidence about the state of our environment and how that state is changing. It can also tell us about how our activities (both positive and negative) are impacting upon the environment and provide information that helps us to adapt or manage those activities. Depending on the scale at which it is implemented, monitoring can tell us about particular biotic or abiotic aspects of a site or it might tell us about the effectiveness of a Wales-wide policy. It may also serve a specific reporting function to satisfy national or international obligations. In practice, it is often required to satisfy a number of roles on a variety of subjects (habitats, species, ecosystem services etc.) and at differing spatial scales.

Protected Site Monitoring: Statutory protected sites (e.g., SSSIs, SACs, SPAs) are monitored using the Common Standards Monitoring (CSM) model, a risk-based approach focused on designated habitats and species. This approach is designed to provide actionable feedback for management and policy to maintain or improve the condition of these features. However, following a recent review, CSM is now treated as an interpretative framework rather than solely a standard field methodology. This shift allows condition assessments to draw on a broader range of evidence sources,

while remaining consistent with the original CSM ethos of assessing condition (A Statement on Common Standards for Monitoring Protected Sites (2022) (version 2.1)).

Structured Species Monitoring: These programmes are predominantly volunteer-led and often coordinated at the UK level (e.g., UK Butterfly Monitoring Scheme, National Bat Monitoring Programme, National Amphibian and Reptile Monitoring Programme, National Dormouse Monitoring Programme (NDMP), Pollinator Monitoring Scheme (PoMs)). This citizen-science component is a major strength of biodiversity monitoring, contributing valuable trend data at both UK and Welsh scales. Such trend evidence is also used in governmental and statutory reporting under UK official statistics and Regulation 9A reporting.

Strategic Restoration Projects: Initiatives such as the National Peatland Action Programme (NPAP), LIFEquake and Sands of LIFE include monitoring components to support targeted habitat restoration. In recent years these projects have delivered positive outcomes across a wide range of habitats including peatlands, rivers, marine areas, sand dunes, and grasslands.

Wider Environmental Monitoring Programmes: Programmes such as the Environment and Rural Affairs Monitoring and Modelling Programme (ERAMMP) and Water Framework Directive (WFD) monitoring incorporate biodiversity elements. WFD monitoring evaluates macrophytes, aquatic macroinvertebrates, and fish in rivers and lakes, as well as benthic invertebrates, seagrass, and fish in coastal and transitional waters. It also tracks water quality indicators like ammonia and phosphate levels to assess ecosystem health. The National Plant Monitoring Scheme (NPMS), coordinated by Plantlife, contributes to wider vegetation trend data.

Local and Ad-Hoc Monitoring: Various organizations, including NGOs, local authorities, and academic institutions, conduct focused or locally targeted biodiversity monitoring. Additionally, unstructured species observations are collated through Local Environmental Records Centres (LERCs) and other mechanisms, providing supplementary evidence of biodiversity trends.

Bird monitoring schemes: For further detail on bird monitoring schemes, including the sources of population estimates and trend data, please refer to the dedicated bird monitoring section later in this report.

Supporting information systems for monitoring: In addition to direct monitoring programmes, a number of data platforms and analytical tools support the interpretation of environmental pressures and trends. These resources help translate raw monitoring data into actionable insights for conservation and policy.

The UK Air Pollution Information System (APIS) is a searchable database that provides information on air pollutants and their impacts on habitats and species. It plays a key role in assessing environmental pressures, informing abatement strategies, and identifying knowledge gaps in the understanding of pollution impacts on natural heritage features.

The role of citizen science in evidence delivery

Citizen science is the involvement of volunteers in science and can have a significant role to play in supporting environmental evidence needs. This involvement can be via active data collection through observations, sample collection to use of sensors. Citizen science can be used to address highly-focussed hypotheses as well as promoting community engagement and facilitates learning opportunities. The projects can either be contributary, collaborative or co-created, depending on the range of activities by citizen scientists. In environmental sciences citizen science is defined by the UK Environmental Observation Framework (UKEOF) as "volunteer collection of biodiversity and environmental information which contributes to expanding our knowledge of the natural environment, including biological monitoring and the collection or interpretation of environmental observations".

Citizen science is a rapidly evolving field with development ranging from social research identifying evidence for social/health benefits through to more technological developments, for example low-cost sensor arrays, bioacoustics, applications etc.

Worldwide, citizen science projects cover a huge range of topics from astronomy to air pollution and recording schemes for groups ranging from plants to flatworms.

A review of the range of citizen science projects demonstrated that the vast majority were focussed on terrestrial environments (64%) with smaller numbers being associated with marine/shore (14%) and freshwater (16%) ecosystems.

Citizen science projects and partnerships have the potential to contribute to the delivery of the Sustainable Management of Natural Resources (SMNR), NRW's corporate plan well-being objectives (Natural Resources Wales / Our corporate plan to 2030 - Nature and People Thriving Together) and support the SMNR principles set out in the Environment Act 2016 and the Well-being of Future Generations (Wales) Act 2015.

Strategic Marine Monitoring Frameworks

In the marine environment, a range of monitoring programmes continue to contribute data for Habitats Directive assessments and reports. Monitoring programmes in Welsh waters form part of a wider UK strategic approach to assessing the state of the seas, coordinated through the UK Marine Monitoring and Assessment Strategy (UKMMAS). UKMMAS was established following the publication of *Charting Progress* (2005), which provided a baseline assessment of the marine environment and recommended a more integrated approach to monitoring. This was further developed in *Charting Progress 2* (2010), which assessed progress towards the UK vision for clean, healthy, safe, productive and biologically diverse seas, as originally set out in *Safeguarding our Seas* (2002).

Since 2010, UKMMAS has provided technical oversight for key UK marine monitoring programmes, including those delivered by NRW. Its work is supported by a suite of Evidence Groups and a community of over 40 organisations, including marine agencies, research institutes, universities, environmental organisations and industry. As part of UKMMAS, the JNCC and the Country Nature Conservation Bodies, including NRW, developed the UK Integrated Marine Biodiversity Monitoring

Strategy, which continues to inform biodiversity monitoring during the current reporting cycle.

Monitoring activities during 2019–2024 have been aligned with the UK Marine Strategy Part One (2019), which set updated indicators and targets for Good Environmental Status (GES), and UK Marine Strategy Part Two (2022), which outlined revised monitoring programmes for all 11 GES descriptors. NRW has contributed to these programmes, particularly through its involvement in the Healthy and Biologically Diverse Seas Evidence Group (HBDSEG). Coordination of monitoring efforts has also been supported by the UKMMAS Data Strategy (2022), which aims to improve data sharing and long-term accessibility.

Marine Site Condition Monitoring

The main purpose of MPA monitoring is to determine the condition of each site's protected features and to provide evidence to inform site management. It typically follows common standards monitoring approaches, ensuring consistent and comparable data over time. Due to resource constraints, only a few of the MPAs have targeted monitoring – with most of this occurring within Skomer Marine Conservation Zone (MCZ) and five of the marine SACs. Some other MPAs get incidental monitoring, due to overlaps in designation (intertidal areas of SAC are also SSSIs) or where there is monitoring for other purposes (e.g. Water Environment Regulations monitoring). Monitoring under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017—hereafter referred to as the Water Framework Directive (WFD)—provides significant support in evaluating the condition of MPA features.

NRW's marine monitoring is limited to nearshore waters, within 12nm of the coast. Offshore areas are the responsibility of JNCC who deliver this work on behalf of Welsh Government. e.g. Croker Slabs SAC. Highly mobile species such as birds and marine mammals are typically monitored through national surveillance programmes (SCANS, WeBS, SMP), but where they aggregate inshore, they may be monitored by NRW (e.g. seal pupping, seabird breeding sites, 'resident' bottlenose dolphins).

Monitoring of the Welsh MPAs has been ongoing since around 2001 for SACs, and since the 1980s at Skomer MCZ. Skomer's marine monitoring programme forms one of the longest running in the UK, and its surveillance data provides a key point of comparison for changes observed elsewhere.

To monitor the varied habitats and species of the marine environment, a wide range of monitoring methods are employed. Remote sensing approaches such as aerial imagery and various types of sonar provide broadscale data. Remote sampling such as drop-down video/stills and grab sampling enable detailed community data to be gathered without directly accessing the seabed. *In situ* recording and sample taking is carried out by NRW staff intertidally on foot or subtidally whilst diving. *In situ* recording often comprises, or is supported by, image acquisition, allowing data to be extracted later when time on site is limited (e.g. whilst underwater). Species such as birds and marine mammals each have their own methodology for deriving key population dynamics data. Whilst Earth Observation data enables evaluation of several sea surface parameters, nearshore observations are often confounded by low resolution and the presence of land. Consequently, many near-shore monitoring

sites have their own fixed autonomous devices that log metrics such as seabed temperature and salinity.

Data is available in Wales for the Special Areas of Conservation (SAC) and Special Protection Areas (SPA) Monitoring Programme in Wales and the European Marine Sites condition assessments for Welsh only SACs in the terrestrial and freshwater environment.

European Marine Site condition assessments

European Marine Site condition assessments for features in Welsh only sites were published in 2025. Although finalised after the formal reporting period, these assessments reflect the status of relevant features during the 2019-2024 reporting period. NRW also reported on the management effectiveness of Welsh OSPAR marine sites many of which are also marine SACs. The 2021 Report and assessment of the status of the OSPAR network of Marine Protected Areas covers all OSPAR sites.

Terrestrial Protected Sites Monitoring Framework

NRW's terrestrial monitoring strategy focusses on species and habitats of conservation interest on SACs, SPAs and SSSI.

Within these protected sites, approximately 3,000 terrestrial features are in scope for assessment. Features are selected for a range of reasons based on rarity, threat or uniqueness. The frequency with which certain feature types have been notified varies considerably, with the majority of features occurring at very low frequency. Estimates in 2020 suggest 634 terrestrial feature types (comprising 1795 features) occur less than 25 times across Wales. This represents a major proportion of features. In contrast only three feature types occur more than 100 times, these are marshy grassland, neutral grassland, and semi-natural woodland.

The 2020 Protected site baseline assessment project demonstrated that only 15% of terrestrial biodiversity features were classed as favourable, with 29% unfavourable and 55% unknown.

NRW seeks to deliver terrestrial monitoring of these sites and features via a series of core evidence programmes.

Features are prioritised based on the risk of condition change or the operational urgency for site intervention. Assessments are conducted using desk assessments, brief site checks, or more comprehensive surveys, depending on the available evidence and the specific feature type. Within NRW, condition assessments are accompanied by a confidence rating to provide an indication of the reliability of the assessment.

Water Framework Directive (WFD) Monitoring

Monitoring under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017, referred to as the Water Framework Directive (WFD), provides significant support in evaluating the condition of MPA features. Monitoring of freshwaters and Welsh seas out to 1nm from baselines is undertaken to meet the requirements of these regulations. This monitoring is often integrated with protected site monitoring and provides a significant source of evidence for assessing the condition of features within SACs.

NRW's freshwater monitoring strategy contributes directly to SAC management through:

1. Ecological and water quality monitoring for the Water Framework Directive
2. Habitats and species of conservation interest including qualifying features on SACs across Wales.
3. Flow gauging
4. Local Investigations programme
5. Specific surveillance programmes
6. Project level monitoring, to evaluate the success of actions

Freshwater monitoring is generally carried out following specific protocols to ensure a consistent monitoring approach and to enable data to be comparable in a wide range of contexts. Most freshwater monitoring is carried out in-house, but some more specialised work is contracted out.

Due to the inherently hazardous nature of the freshwater environment, there is less scope for citizen science methods than in terrestrial, but there are nevertheless examples of successful freshwater citizen science methods and projects such as the Riverfly Partnership.

Decisions on which locations to monitor are taken using a standardised risk-based approach across Wales. Although this allows resources to be targeted where they are most needed, it also means that the available data do not necessarily reflect national trends.

Freshwater monitoring data has major implications for Wales. As well as the gauging station network, used to assess flood risk and flow in our rivers, nutrient data from the monitoring network has been important in informing nutrient management data on SAC rivers. Data has also recently been used to estimate catchment level extinction risk for Atlantic salmon, driving a significant policy response.

Coverage of freshwater habitats and species up to 2020 is generally good, though Covid has resulted in a significant disruption to delivery of the programme. In 2020, the condition of 86% of freshwater features could be reported on, with 14% being classed as Unknown. Evidence quality was also generally considered to be good.

WFD waterbodies are assessed every three years, and outputs from this classification process are published on Water Watch Wales. However, not all water

bodies are necessarily monitored over this time, with results being 'rolled forward' from previous assessments. Where a waterbody is failing to achieve its objectives, an investigation may be initiated, which may result in further investigative monitoring.

WFD Transitional and Coastal (TraC) waters comprise both transitional (estuarine) and coastal waterbodies (WBs) out to 1nm from baselines. WFD 'quality elements' of some waterbodies ('surveillance' WBs) are monitored cyclically to provide an indication of general health at a Wales level. Other waterbodies ('operational' WBs) are monitored only when elements they support are considered potentially at risk of deterioration or failure to achieve 'Good' or better status. As there is insufficient resource to monitor all operational waterbodies considered at risk, a prioritisation process is used to select those where risk is highest.

Monitoring approaches for WFD TraC waters are similar to those for MPA monitoring, however subtidal monitoring of ecology is limited to sediment invertebrates. The WFD programme includes a significant water quality component which provides support for MPA assessments. WFD methods are standardised across the UK (and EU) and there has been an extensive programme of indicator development and intercalibration across countries.

MarClim programme

Natural Resources Wales partners with the Marine Biological Association (MBA) to help deliver this project within Wales. It comprises rocky shore monitoring with a focus on climate change indicators. Field work is integrated with NRW's current rocky shore monitoring and the data informs MarClim inputs to Marine Climate Change Impacts Partnership (MCCIP) reports as well as NRWs MPA feature condition assessments. The MarClim project, now running for many years, has the most spatio-temporally extensive time-series of rocky intertidal systems globally.

Joint Cetacean Data Programme

Standard effort based at-sea data collection protocols for cetacean surveys and collation of these data are collated as part of the Joint Cetacean Data Programme.

Small Cetacean Abundance in the European Atlantic and North Seas (SCANS)

The fourth Small Cetacean Abundance in the European Atlantic and North Seas (SCANS) survey was completed in 2023 and provides a robust summer estimate of abundance and distribution of several cetacean species around the UK and Europe.

Cetacean Strandings Investigation Programme

The UK Cetacean Strandings Investigation Programme (CSIP) coordinates the investigation of cetaceans and other notable marine vertebrate species that strand around the UK coastline. CSIP documents each individual stranding and examines a

proportion of them at post-mortem to establish cause of death and monitor health and status. These data address a wide range of scientific questions.

Cetacean Bycatch Monitoring Programme

The bycatch moniting programme (and current continuation of the scheme) provides independent fishery observations of bycaught cetaceans in certain sea areas around the UK. The programme is an integral part of the Marine wildlife bycatch mitigation initiative.

Protection of species

NRW is the competent authority responsible for administering wildlife and marine licensing in Wales. Marine European Protected Species, such as cetaceans and marine turtles, are covered under NRW's Marine European Protected Species licencing guidance, while protected plant species are addressed through NRW's European protected species of plant licensing page. General information on species licensing in Wales is available via NRW's Species licensing overview. In relation to forestry and woodland operations, operators are directed to check if a wildlife licence was required during forest operations to ensure compliance with protected species legislation.

Impact of measures on the conservation status of Annex I habitats and Annex II species

Outcomes from the implementation of measures are presented in the Wales-specific summary report for Annex I habitats and Annex II, IV and V species, produced under Habitats Regulations 9A. These outcomes are further supported by detailed evidence contained within the accompanying technical appendices of habitats data, non-bird species data and marine species data, all of which form part of this first Habitats Regulations 9A report for Wales.

Transposition of the Habitats Directive into UK law

Information on the country-level transposition of the Habitats Directive (Council Directive 92/43/EEC) into national UK law.

The European Commission Habitats and Wild Bird Directives which apply to England and Wales were transposed into UK law through the Conservation of Habitats and Species Regulations. The regulations were consolidated in 2017 and amended in 2019 to make them operable post EU exit in January 2021, by transferring functions from the European Commission to Welsh Ministers. Changes to the Habitats Regulations 2017 - GOV.UK

For UK offshore marine, see: The Conservation of Offshore Marine Habitats and Species Regulations 2017.

2.3 National Site Network (pSCIs, SCIs & SACs) – site designation

The SAC network in Wales covers approximately 23,331.80 km², comprising:

- 14 SACs with marine components (22,134.49 km² total), which include:
    - 22,055.80 km² of marine area
    - 78.69 km² of terrestrial area
- 81 terrestrial SACs (1,197.31 km² total), excluding any sites with marine components

Note: The areas presented above reflect the full extent of each SAC, including any portions that lie in England or offshore. No adjustments have been made to separate out the area specifically within Welsh jurisdiction.

These figures are based on the UK-wide Standard Data Form update, submitted as part of UK national site network reporting and last revised on 10 April 2025.

2.4 Set of conservation measures and management plans for National Site Network sites(SACs)

Site-level conservation objectives have been developed for nearly all SACs in Wales, following the concept of favourable conservation status (FCS) as defined in the Habitats Directive. While FCS is not a statutory obligation at the individual site level, it provides a practical framework for defining the desired condition of habitats and species.

For terrestrial SACs, these objectives are set out in Natura 2000 Core Management Plans, which also include monitoring results and recommended actions. For marine SACs, conservation objectives are provided through Regulation 37 advice packages. Where designations overlap, a single document may cover multiple sites. Further information, including site-specific management plans and conservation advice documents, is available via the NRW Find protected area of land and sea search tool.

These instruments are supported by the NRW Protected Sites database, which records site-specific conservation actions and enables the generation of Prioritised Improvement Plans (PIPs). PIPs summarise the actions needed to improve the condition of designated features. They are live documents, informed by the Protected Sites database, and are updated as actions are completed or new ones are identified. This approach was developed through collaboration with NRW Conservation Officers and partners, and supports the delivery of the LIFE Natura 2000 Programme's Thematic Action Plans, which address key pressures and risks across the network.

This integrated approach allows NRW to assess conservation needs across Wales, allocate resources effectively, and align site-level actions with broader initiatives such as Area Statements under the Environment (Wales) Act 2016.

2.4.1 & 2.4.2 Extent of conservation measures and management plan coverage across SACs

Necessary conservation measures, as required under Article 6(1), are in place and being applied across 94 of the 95 SACs in Wales, covering 99.3% of the network by area.

Comprehensive management plans or equivalent instruments are also in place for these same 94 SACs, covering 99.3% of the network by area. These instruments include Core Management Plans for all 81 terrestrial SACs in Wales, supported by site-specific issues and actions recorded in the Protected Sites database.

For most marine SAC sites (13 out of 14 sites, also covering 99.3% of the marine site network), the combination of the Regulation 37 advice package, entries in the Protected Sites database, and, where available, Regulation 38 management scheme documents collectively meet the definition of a comprehensive management plan used in previous Article 17 reporting.

The Dee Estuary / Aber Dyfrdwy SAC is the only known exception, as it does not yet have a finalised Core Management Plan covering the entire site. However, the marine component — which comprises 97.7% of its 158.05 km^2 area — is already addressed through a Regulation 37 advice package, inclusion in the Protected Sites database, and a PIP.

While establishing management schemes under Regulation 38 is optional for relevant and competent authorities, the Habitats Regulations place a general duty on all statutory authorities exercising legislative powers to do so in accordance with the Habitats Directive. These schemes provide a structured framework for managing activities to achieve the site's conservation objectives, informed by requirements and promoting cooperative working among authorities, particularly for large or complex sites.

Regulation 38 management schemes are in place or in development for the following SACs:

- Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC (draft)
- Cardigan Bay / Bae Ceredigion SAC
- Pembrokeshire Marine / Sir Benfro Forol SAC
- Severn Estuary / Môr Hafren SAC
- Pen Llŷn a'r Sarnau / Lleyn Peninsula and the Sarnau SAC

During the previous reporting cycle, three marine sites in Wales were classified as Sites of Community Importance (SCI). These sites — Bristol Channel Approaches / Dynesfeydd Môr Hafren, North Anglesey Marine / Gogledd Môn Forol, and West Wales Marine / Gorllewin Cymru Forol — have now been formally designated as SACs. Each site now benefits from conservation objectives and advice on operations, supporting the implementation of site-based conservation measures under Regulation 9A.

2.5 Measures taken in relation to approval of plans & projects

The National Habitat Creation Programme (NHCP)

The National Habitat Creation Programme (NHCP) was established by NRW on behalf of the Welsh Government to deliver compensatory habitat for losses resulting from coastal squeeze, particularly in relation to flood and coastal erosion risk management projects that implement policies set out in Shoreline Management Plans (SMPs). Coastal squeeze is assessed for projects in line with NRW's guidance and the Welsh Government's 2021 position on the role of the NHCP, which outlines its function in supporting sustainable coastal management and biodiversity protection.

The NHCP has maintained coherence of the National Site Network as offsets for impact from coastal squeeze specifically relating to coastal plans and projects. This relates to Articles 6(3) and 6(4) of the Habitats Directive and is important to maintaining coherence where a loss has been identified and passed through an imperative reasons of overriding public interest (IROPI) process. The offsets are associated with impacts at several sites (see Table 2.5.1), including the Cardiff Coastal Defence Scheme (major impact, approximately 25 ha), Barmouth (minor impact), and Gutter Fawr (a minor impact of less than 1 ha, but considered significant enough to justify a derogation under Article 6(4) and compensatory measures). NRW has managed the programme to compensate for impacts that directly relate to climate change related sea level rise and anthropogenic defences.

A list of individual Welsh plans and projects requiring compensatory measures that Welsh Government were informed of during the 2019-2024 reporting period are provided in Table 2.5.1.

Table 2.5.1 Welsh plans and projects where compensatory measures were required during the 2019–2024 reporting period, as notified to Welsh Government

Site code	Site name	Title of project/plan	Authority informed of compensatory measures	Year authority was informed of compensatory measures	Supplied by
UK0013030	Severn Estuary/ Môr Hafren	Cardiff Coastal Defence Scheme	Minister in Welsh Government	2022	NRW
UK0030131	Dee Estuary/ Aber Dyfrdwy	Gutter Fawr Outfall Flood Risk Management Scheme, Talacre	Minister in Welsh Government	2020	NRW

Site code	Site name	Title of project/plan	Authority informed of compensatory measures	Year authority was informed of compensatory measures	Supplied by
UK0013117	Pen Llŷn a'r Sarnau/ Lleyn Peninsula and the Sarnau	Barmouth Viaduct Gardens Scheme	Minister in Welsh Government	2024	NRW
UK0013117	Pen Llŷn a'r Sarnau/ Lleyn Peninsula and the Sarnau	Hafan y Mor, Pwllheli	Minister in Welsh Government	2020	NRW
UK0013116	Pembrokeshire Marine/ Sir Benfro Forol	Greenlink	Minister in Welsh Government	2020	NRW
UK0030131	Dee Estuary/ Aber Dyfrdwy	Port of Mostyn extension	Minister in Welsh Government	2024	NRW

2.6 Measures taken to ensure coherence of the National Site Network

In Wales, work to ensure coherence and connectivity of the national site network is embedded within broader environmental and biodiversity strategies. These measures are not standalone; they are integrated into national legislation, planning frameworks, and targeted programmes that support the ecological integrity of SACs. For example:

Welsh legislation and policy

Sustainable development principles underpin the Well-being of Future Generations (Wales) Act 2015 in the same way the ecosystem approach is the foundation for provisions in the Environment (Wales) Act 2016. As such, these cornerstones of Welsh legislation provide the legal and policy frameworks to prioritise biodiversity conservation and measures to achieve coherence at a site network scale.

The policy products from the Environment (Wales) Act 2016 including the SoNaRR evidence base, the NRP Welsh Minister’s plan and Area Statement implementation are intended to work together to deliver the sustainable management of natural

resources (SMNR) and maintain and enhance biodiversity and the resilience of ecosystems. Striving towards coherence of the NSN is a core mechanism at the heart of these objectives.

Wales's biodiversity strategy and action plan (NRAP) features objectives and actions linked to building coherence and connectivity in the NSN. The 'Deep Dive' in 2022 and subsequent work on the Global Biodiversity Framework's (GBF) Target 3 30 by 30 further highlighted and embedded the importance of protected sites and enhancing management, condition and coherence.

Wider legislation and policy measures such as the Agriculture (Wales) Act 2023, Environment (Air Quality and Soundscapes) (Wales) Act 2024, Planning Policy Wales 12, Future Wales: The National Plan 2024, The Clean Air Plan for Wales 2010, the development of land management agri-environment schemes and the National Marine Plan have also contributed to ensuring coherence at a strategic level.

For details on these legislative and policy areas please see Section 1.3 of this document.

Marine Protected Areas (MPAs)

In addition to designating parts of the UK's marine area as SACs, work has progressed on identifying areas to potentially become MPAs through other national legislation. This will allow for the protection of nationally important marine wildlife and habitats. These MPAs will complement offshore SACs and contribute towards the completion of a well-managed network.

2.7 Reintroduction of Annex IV species

This section summarises recent reintroduction efforts for Annex IV species in Wales, detailing the timing, locations, and observed outcomes of each programme.

S1441 Shore dock (*Rumex rupestris*)

The reintroduction period for Shore dock (*Rumex rupestris*) was in 2024. Sixty-four (64) individuals were reintroduced at Southerndown Coast SSSI (Cwm Mawr & Cwm Bach). It is too early to determine whether this reintroduction has been successful.

S1903 Fen orchid (*Liparis loeselii*)

The reintroduction period of Fen orchid (*Liparis loeselii*) was in 2012. Several seed were reintroduced at Tor Slack, Whiteford SSSI, Carmarthen Bay and Estuaries SAC. This reintroduction has been considered a success as natural reproduction has already taken place with the population growing. The total number of fen orchids recorded on Welsh sites in 2024 was 734 individuals with an average annual count of 1257 plants for the period 2022-2024. The initially very small population at Whiteford Burrows has subsequently increased in numbers from single figures until 2021 to 623 plants counted in 2024.

S6284 Natterjack toad (*Epidalea calamita*)

The reintroduction period for Natterjack toad (*Epidalea calamita*) was between 1995 and 2021. Hundreds of spawn strings, the equivalent of thousands of eggs, were reintroduced at Gronant, Talacre, Point of Ayr and Bettisfield. This reintroduction has been considered a success as natural reproduction and population growth is continuing at three out of the four sites. Population growth is evidenced by increases in calling males, strings of spawn and emergent toadlets at most sites with natural fluctuations in numbers relating to persistence of adequate water depths.

S1261 Sand lizard (*Lacerta agilis*)

The reintroduction period for Sand lizard (*Lacerta agilis*) was between 1995 and 2017. Hundreds of individuals were reintroduced at Morfa Harlech, Aberdyfi, Ynys Las, Talacre and Gronant. This reintroduction has been considered a success as natural reproduction has taken place, and the population is spreading at each site. Unofficial releases have also been carried out at two other sites in north Wales and one in south Wales. Research has shown that the individuals at these sites are genetically indistinguishable from the populations in North Wales, as demonstrated in the study by Owens et al. (2022) on the genetic ancestry of introduced populations of sand lizard in Wales.

S1029 Freshwater Pearl Mussel (*Margaritifera margaritifera*)

Pearl Mussel captive rearing is currently under way at two NRW hatcheries in Powys, and at the Freshwater Biological Association hatchery in Cumbria. With the support of LIFE funding, NRW has reopened a hatchery specifically for pearl mussel rearing where these activities can be carried out on a larger scale, and where adults can be safely housed. Additionally, the facilities for juvenile rearing have been refurbished. As a result, adult mussels from the Eden, Irfon, Dee, Nyfer, Dwyfor and Conwy are all being captive reared.

Captive rearing has been slower than anticipated due to the difficulty of finding suitable donor stock and because mussels have not spawned successfully every year, but juvenile mussels are currently being reared in the hatchery. In 2024, the first releases of captive reared mussels were carried out at a site in Eryri under controlled conditions, with the aim of reinforcing and rejuvenating the existing population there. A total of 50 juvenile mussels were released. Further releases are planned both here and in other rivers once the necessary habitat restoration works are complete. A further c. 3000 juvenile mussels are in the hatchery awaiting reintroduction.

S1092 White-clawed crayfish (*Austropotamobius pallipes*)

The reintroduction period for white-clawed crayfish (*Austropotamobius pallipes*) was from 2012 onwards. Five thousand individuals were reintroduced at Afon Chwefru and Afon Cneiddion. This reintroduction has been considered a success as natural reproduction has already taken place and population is growing. As part of the Irfon LIFE project, a captive-rearing programme at NRW's Cynrig hatchery from 2012-2014 released 2700 crayfish into the Afon Chwefri (a tributary of the Irfon), with wild progeny recorded in 2018. Over 5000 crayfish have now been released into Ark sites to date on the Chwefri and the Cneiddion. The final report for the Irfon LIFE project

states that management work (e.g. fencing to prevent stock access and siltation) has improved 14km of fluvial habitat for crayfish, with an extra 10km of occupied habitat as a consequence of introduced populations. This feature is an Annex V species but included here for completeness.

3. Bird general report

3.1 Main achievements since the 11th Article 12 Report by the United Kingdom

This section briefly describes the main achievements under the Birds Directive (2009/147/EC), during the 2019-2024 reporting period, as part of Wales's country-level assessment under Habitats Regulations 9A. It places particular emphasis on the National Site Network, the UK's network of protected areas, formerly part of Natura 2000, which includes Special Protection Areas (SPAs).

Third Review of the United Kingdom's network of Special Protection Areas

The Third Review of the United Kingdom's network of Special Protection Areas (SPAs) classified under the EU Birds Directive (2009/147/EC) comprises three parts or phases.

The report "The status of UK SPAs in the 2000s: the Third Network Review", which summarised the outcomes of Phase 1, was published in 2016 on the JNCC website. The review is believed to be the first to have provided a complete national protected area network assessment against an explicit baseline. Numbers of all qualifying species on SPAs in the 2000s were assessed against their status in the 1990s. SPA provision was assessed in detail for 151 species and full details are in the final review published on JNCC's website

The work to deliver Phase 2 detailed species/population assessments carried out by: Natural England, Natural Resources Wales (NRW), the Northern Ireland Environment Agency (NIEA) (an Executive Agency within the Department of Agriculture, Environment and Rural Affairs) and Scottish Natural Heritage (now NatureScot) and was facilitated by the Joint Nature Conservation Committee (JNCC). This report summarised the detailed species/population assessments made as part of Phase 1 of the Third Review, in particular:

- whether new SPAs should be considered in the light of recommendations from Phase 1 of the Third Review, and if so, their possible location and extent;
- whether existing SPAs should be considered to be extended either in spatial extent, or through the addition of further qualifying species;
- determination of situations requiring focussed monitoring and/or management actions; and

- highlighting the need to establish a prioritised timetable to implement the findings of Phases 1 and 2 of the Third Review.

The Phase 2 report was published in 2025 on JNCCs website.

As noted by Stroud *et al* (2016) Phase 3 will comprise:

- for existing SPAs (and following consultation and other statutory processes), revision of the legal Citations (as appropriate and necessary) by the individual country SNCBs, for those sites where qualifying species/populations have been changed;

- consultation to re-classify existing SPAs with boundary amendments;

- consultation for the classification of new SPAs; and

- revision by JNCC of relevant documentation summarising the extent of SPA suites for those species/populations where further additions to species/population suites have occurred, consequent upon decisions implemented from the Phase 2 advice and options.

Importance of the Wales SPA network

In Wales there are 21 SPAs classified for 89 features. Eleven of these SPAs contribute to the UK SPA network that provides targeted conservation measures for 2,488,000 non-breeding waterbirds, 37% of the national total, as well as for 70% of the UK's breeding seabirds (2,471,000 pairs). For example, before the Highly Pathogenic Avian Influenza (HPAI) epizootic in 2022 and 2023, Grassholm SPA was the UK's third largest gannetry, with over 36,000 pairs of breeding Gannets *Morus bassanus* but the population has since declined by 40% due to HPAI as detailed within A Census Of The Northern Gannet Population On Grassholm 2024. Skomer and Skokholm islands The Skomer, Skokholm and Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro SPA supports the largest concentration of breeding seabirds in England and Wales and the world's largest breeding colony of Manx Shearwater *Puffinus puffinus* (over 450,000 pairs), c37% of the global population, one of Britain's largest colonies of Lesser Black-backed Gull *Larus fuscus* (over 8,300 occupied sites), and significant breeding numbers of other breeding seabirds, including Razorbill *Alca torda*, Black-legged Kittiwake *Rissa tridactyla*, Atlantic Puffin *Fratercula arctica*, and Common Guillemot *Uria aalge*. The Anglesey Terns / Morwenoliaid Ynys Môn SPA, with nearly 4,000 pairs, is the largest Arctic tern *Sterna paradisaea* colony in the UK and the Little Tern *Sternula albifrons* colony at Gronant, is the second largest in the UK (Burnell *et al*., 2023).

There are seven SPAs classified for Choughs in Wales, covering over 7,500ha (Castlemartin Coast SPA, Craig yr Aderyn SPA, Glannau Aberdaron and Ynys Enlli/ Aberdaron Coast and Bardsey Island SPA, Glannau Ynys Gybi/ Holy Island Coast SPA, Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA, Ramsey and St David`s Peninsula Coast SPA, Skomer, Skokholm and the Seas off Pembrokeshire /

Sgomer, Sgogwm a Moroedd Penfro SPA). The Welsh Chough SPA suite represents 35% of the Welsh population and 30% the UK population.

Further information about SPAs in Wales can be found at the SPA page of DataMap Wales.

Agri-environment schemes (AES)

Management of agricultural land has been identified as the most significant factor driving species population change in the UK (Burns *et al.*, 2016). With 90% of Welsh land utilised for agriculture (Welsh Government, 2023) and over 50% of Wales landcover is improved grassland dominated by Perennial Rye Grass *Lolium perenne* (Blackstock, 2010). Nature across farmed landscapes in both the uplands and lowlands has been, and remains, vulnerable to farming practices (e.g. intensive grassland and moorland management, loss of landscape scale habitat diversity, high input and intensive livestock grazing). See the section on Land management agri-environmental schemes within this report for details of the Sustainable Farming Scheme planned to commence in 2026.

Strategic UK-level initiatives affecting Wales

The Offshore Wind Environmental Improvement Package (OWEIP) is being developed by Governments to help offshore wind project applicants address unavoidable impacts to Marine Protected Areas (MPA) at a strategic level, facilitated through one or more Marine Recovery Funds (MRF) into which applicants can choose to pay to discharge environmental compensation obligations. In 2024, two compensatory measures of protected seabird features, were approved as part of suite of measures to deliver compensation for impacts of offshore windfarm developments in UK waters: i) Offshore Artificial Nesting Structures (offANS) for kittiwake and, ii) Predator Reduction via eradication, control and exclusion of invasive native & non-native mammals. The measures will be delivered by governments and renewable energy companies via the MRF in England, Wales and Northern Ireland.

Lead ammunition ban

In England and Wales, the use of lead shot is prohibited over all foreshore, over specified Sites of Special Scientific Interest (SSSIs), and for the shooting of all legal quarry species of ducks, geese, waders Coot *Fulica atra* and Moorhen *Gallinula chloropus*, wherever they occur.

Compliance with regulations on the use of lead shot in wildfowling is currently poor (e.g. Cromie *et al.*, 2010; Strong *et al.*, 2024). The UK Government announced a ban on lead ammunition in July 2025. New measures will ban shot containing more than 1% lead and bullets with a lead content of more than 3%. Beyond limited exemptions, these types of ammunition will no longer be sold to the public. Following extensive public engagement, a three-year transition period will support the shooting and hunting sectors to shift to more environmentally friendly alternatives.

Addressing illegal persecution of birds of prey

The police-led National Wildlife Crime Unit (NWCU) assists in the prevention and detection of wildlife crime by gathering intelligence and providing analytical and

investigative support to the police and other enforcement authorities and statutory agencies, domestically and internationally. It produces analyses which highlight local or national threats.

The priorities of the NWCU are reviewed every two years by the Wildlife Crime Conservation Advisory Group, which is composed of representatives from the UK statutory nature conservation bodies (JNCC, Natural England, NatureScot, DAERA and Natural Resources Wales) and eNGOs.

In June 2021, and in recognition of the unique elements to wildlife and rural crime in Wales, the Welsh Government provided funding for a dedicated post of an All-Wales Wildlife and Rural Crime Coordinator with a focus on providing information, training, resources and coordination across Wales' police areas. Following the success of the pilot year, a further three years of funding was committed. A strategy to guide that work was issued jointly with the police in Wales for 2023–2025 with a view to dovetailing with the content of the National Police Chiefs Council strategies for wildlife crime, and to align with the same period. In 2024 Welsh Government announced funding for the programme would be extended to 2028 to allow for the development and execution of a new 2025–2028 strategy. The second rural crime Strategy was launched in July 2025.

Marine SPAs

In the marine environment, domestic implementation of the EU Birds Directive through domestic legislation has afforded protection to qualifying species (e.g. breeding seabirds) of marine SPAs. Identification and classification of marine SPAs in Wales is now complete, with Skokholm and Skomer SPA extended and reclassified in 2017 and renamed as Skomer, Skokholm and the Seas off Pembrokeshire SPA / Sgomer, Sgogwm a Moroedd Penfro UK9014051, Ynys Feurig, Cemlyn Bay and the Skerries reclassified in 2017 and renamed as Anglesey Terns UK9013061, Northern Cardigan Bay classified in 2017 UK9020327 and Liverpool Bay / Bae Lerpwl UK9020294 extended in 2017 for Little Gull *Larus minutus* and wintering Waterbird Assemblage.

Wales Seabird Conservation Strategy

Following a recent consultation (December 2024) Welsh Government are developing the Welsh Seabird Conservation Strategy focusing on the protection, conservation and restoration of seabirds in Wales. It aims to achieve this by providing a framework for a continuous assessment of the status of seabirds and of ongoing conservation action in Wales, by providing high-level recommendations where conservation action needs to be improved or adjusted, and by enabling and safeguarding deliverable conservation actions through collaboration with stakeholders.

The protection of seabirds in Wales forms part of the Welsh Government's wider environmental protection activities. These activities are underpinned by legislative duties and international commitments contained within the following:

- Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention).
- Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971 (the Ramsar Convention)

- Environmental (Wales) Act 2016
- EU directive on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive)
- The Wild Birds Directive
- Marine and Coastal access Act 2009
- The Conservation of Habitats and Species Regulations 2017
- The Conservation of Offshore Marine Habitats and Species Regulations 2017
- Wildlife and Countryside Act 1981

Maintaining and improving the health and diversity of the seabird population in Wales is integral to Welsh Governments approach to protect the environment for the well-being of future generations and our duties under the Well-being of Future Generations (Wales) Act 2015.

Island Biosecurity

The Biosecurity for LIFE programme was a five-year (2018-2023) partnership project led by the RSPB, with funding from NatureScot, Natural England, DAERA and Natural Resources Wales. The project improved biosecurity measures at 42 SPAs benefitting migratory species such as Arctic Tern *Sterna paradisaea*. Six island SPAs were covered by this project in Wales, these were: Puffin Island SPA, The Skerries (Anglesey Terns SPA), Bardsey Island (Aberdaron Coast and Bardsey Island SPA), Skomer and Skokholm (Skomer, Skokholm and the Seas off Pembrokeshire SPA) and Grassholm SPA. The project, entailed working with a wide range of stakeholders to develop UK capacity to plan and implement biosecurity measures to safeguard these SPAs against the threat of invasive non-native mammalian predators.

Surveillance and incursion response efforts have prevented new populations of non-native predators becoming established on these islands. There are now legacy projects in place in Wales, with funding from the RSPB and Welsh Government, and the project has been extended to other important seabird islands such as SSSIs.

This work is closely aligned with the operational target “reduce risks to island seabird colonies from non-native mammals” of the Marine Strategy.

Island restoration

Wales has internationally important populations of breeding seabirds. Wales has a number of islands which currently do not have invasive mammals but have the potential to hold breeding seabirds. To look into this potential, the Nature Networks Programme funded a post using grant money from Welsh Government. In 2025, this post will create a feasibility report on the different species, islands and methods which can be applied to extend and improve seabird populations in Wales.

Risk assessment of seabird bycatch

There have been few previous studies of seabird bycatch in UK waters, and no complete overview in the mainstream literature. By-catch is one of a number of possible man-made threats facing seabirds populations. There are several international efforts underway to better understand and address the problem, the UK is an active participant in these.

In July 2018, the UK Department for the Environment, Food and Rural Affairs (Defra) asked JNCC to develop a UK marine bird bycatch Plan of Action (PoA) to: “Deliver a coherent approach to understand and where necessary reduce marine bird bycatch in UK fisheries, through engagement and dialogue with all interested parties and the implementation of subsequent recommendations”. The PoA has now been superseded by the Bycatch Mitigation Initiative.

Stemming from that request and subsequent developments in the PoA, a first assessment of broad-scale seabird bycatch mortality by some sectors of the UK-registered fishing fleet in UK and adjacent waters was undertaken using data collected under the UK Bycatch Monitoring Programme (BMP) and official fishing effort statistics. Compiling data from the UK Bycatch Monitoring Programme (BMP) JNCC summarised and compared this data with the at-sea commercial catch sampling programme (CSP) data of England and Wales and published a report on regional seabird bycatch hotspots (Northridge *et al.,* 2023). No serious seabird bycatch issues were reported in this study. This work is one of the programme of measures ran under the Marine Strategy and is intended to expand the programme of work from monitoring and assessment to action and mitigation. However, UK seabird bycatch estimates currently exclude foreign-registered vessels; this is likely to lead to underestimation of mortality.

In Wales, incidental by-catch of seabirds in fisheries is generally considered not to be an issue. Currently, research is underway to investigate the impact of small scale artisanal net fisheries within Welsh waters, funded by the FISP (Fisheries Industry Partnership Scheme).

Curlew Recovery

The Eurasian Curlew is a species of urgent conservation concern in the UK (Stanbury *et al*., 2021) and Wales (Johnstone *et al*., 2022) and is now globally Near-Threatened due to widespread declines across the breeding range (BirdLife International 2015). Owing to rapid national declines and the global importance of the UK breeding population, the Eurasian Curlew is now considered to be the most pressing bird conservation priority in the UK (Brown *et al.,* 2015) and in Wales (Curlew Recovery Plan for Wales). To address this need, Natural Resources Wales established Gylfinir Cymru / Curlew Wales, a broad Partnership to set the strategic direction of Eurasian Curlew recovery in Wales. In 2021, Gylfinir Cymru / Curlew Wales launched the Curlew Recovery Plan for Wales that sets out a framework to scale-up conservation delivery based on the African Eurasian Waterbird Agreement (AEWA) International Single Species Action Plan for Eurasian Curlew AEWA ISSAP for the Conservation Of Eurasian Curlew.

The Wales plan identifies priorities for action across a coherent network of breeding Curlew sites - Important Curlew Areas (ICAs). The ICAs provide a focal point for targeted action. For example, two independent partnership projects, Curlew Connections Wales and The Curlews Call, funded by the Welsh Government Nature Networks Fund (see NNP section above) aim to reverse the decline in breeding Eurasian Curlew in five ICAs within Wales. Both projects will aid delivery of the Wales Curlew Action Plan and will provide a focus to engage with farming and landowning communities to maximise recovery interventions.

UK Woodland Bird Working Group

Natural Resources Wales co-chair with Natural England the UK Woodland Birds Steering Group, a joint group between organisations that represent sectors of government agencies, conservation, academia and woodland management. The Steering Group aims to develop a woodland bird framework to aid recovery of nine at-risk UK woodland birds (Hawfinch *Coccothraustes coccothraustes*, Lesser spotted Woodpecker *Dendrocopus minor*, Marsh Tit *Parus palustris*, Willow Tit *Parus montanus*, Nightingale *Luscinia megarhynchos*, Pied Flycatcher *Ficedula hypoleuca*, Spotted Flycatcher *Muscicapa striata,* Wood Warbler *Phylloscopus sibilatrix* and Woodcock *Scolopax rusticola*) and improve the resilience of associated woodland ecosystems.

The woodland bird framework will address five principal themes:

- Address evidence gaps to ensure management delivers for at-risk species, including deploying and testing novel solutions
- Ensure all actions are underpinned by effective monitoring
- Provide clear leadership on woodland birds in the UK
- Deploy tried and tested management interventions
- Develop international collaboration to achieve results along migratory flyways

Wales will champion recovery for Wood Warbler, Pied Flycatcher and Hawfinch.

Highly Pathogenic Avian Influenza

Highly Pathogenic Avian Influenza (HPAI) is naturally occurring in wild waterfowl and is spread across the globe via migratory pathways. Normally it is a seasonal disease, however, the HPAI H5N1 strain currently circulating in the UK, including Wales, since 2020 has been detected year-round. HPAI outbreaks in wild bird populations have become more common and severe in the last decade, notably affecting seabird colonies in Scotland and Wales in 2022. The UK Animal and Plant Health Agency (APHA) carries out year-round avian influenza surveillance of dead wild birds submitted by public reports and warden patrols across Great Britain on behalf of Defra, Welsh Government and Scottish Government. A sample of dead birds are collected for testing, to help understand the risk posed to kept poultry and other captive birds to understand how the disease is distributed geographically and in different species of wild bird.

NRW together with other UK Statutory Nature Conservation Bodies (SNCBs) assist the UK and devolved Governments in the monitoring of wild bird populations and the impact HPAI may have on these populations, and provide advice on potential species recovery actions. Since 2022, all UK SNCBs have operated a targeted wild bird mortality reporting system at key breeding seabird and non-breeding waterbird sites. The UK SNCBs have also contributed to the national contingency planning and have supported Defra and the devolved Governments in liaising with the wider international community on these issues

Enhancements to the monitoring and assessment of bird species affected by HPAI have been introduced, especially focussed on birds of prey, non-breeding waterbirds and breeding seabirds monitored under the UK Seabird Monitoring Programme, as a response to significant mortality of these taxa in 2022 and 2023. Birdwatchers and

volunteer bird surveyors can now record dead wild birds through existing citizen science platforms (e.g. Wetland Birds Survey) operated by the British Trust for Ornithology (BT0)

Several new working groups were established to support exchange of information and plan responses. For example, Defra and the Welsh Government commissioned JNCC to establish the Defra-Welsh Government Advisory Group on HPAI and Wild Bird Recovery to advise, recommend actions and develop guidance on minimising the impact of HPAI on wild bird populations. The group collaborates with the NatureScot Avian Influenza Task Force for Scotland and gathers information from conservation, land management and wildlife disease experts from a range of organisations to assess what conservation and monitoring actions can be implemented with respect to wild bird populations impacted by avian influenza. The group is led and chaired by JNCC and made up of key experts from organisations such as Natural England, Natural Resources Wales, RSPB, BTO, National Trust, Wildlife & Countryside Link, the Wildfowl and Wetlands Trust, BASC and the Game and Wildlife Conservation Trust.

The mitigation strategy for avian influenza in wild birds in England and Wales (2024) sets out the policies and approach that Defra and Welsh Government, and their delivery agencies the APHA, Natural England and Natural Resources Wales take to avian influenza in wild birds in England and Wales, within the remit of national law. It also contains guidance for the general public and nongovernmental organisations on issues which may impact them in relation to avian influenza in wild birds. The following bodies have been involved in implementing the mitigation strategy in England and Wales: the Ornithological Expert Panel, the Avian Influenza Wild Bird Recovery Advisory Group, the Defra Group Avian Influenza in Wild Birds Working Group, the Avian Influenza Outbreak and Biosecurity Communications Stakeholder group, the Welsh Wild Birds Avian Influenza Strategic Response Group, and the Joint Statutory Nature Conservation Bodies Working Group on Avian Influenza. Together these bodies deliver implementation over the following broad areas: notification and reporting (including international obligations), surveillance of dead wild birds submitted via public reports and warden patrols, HPAI research, wild bird population monitoring, support for species recovery, biosecurity of natural settings, restrictions on activities (ringing, access, feeding of wild birds, shooting, gamebird release), and removal and disposal of dead wild birds.

Human-wildlife conflicts

Illegal persecution of bird of prey in Wales

Particular priority has been given to actions that seek to reduce human-wildlife conflicts with protected birds, such as the illegal killing of Hen Harriers *Circus cyaneus*. This persecution results in low levels of first-year and adult Hen Harrier survival (Ewing *et al*., 2023), which suppresses the population size at low levels. While illegal persecution constituted an important threat to Hen Harriers in Wales historically (Whitfield *et al*., 2008), its impact has dwindled, other natural drivers are more important for population change.

A recent study commissioned by NRW found the mortality of first-year Hen Harriers in Wales was largely attributable to natural causes (Sheard *et al*., in prep).

Understanding the impact of predation by fish-eating birds on Atlantic Salmon populations in Wales

The declining and increasingly vulnerable state of Atlantic Salmon *Salmo salar* and Sea Trout *Salmo trutta* stocks in Wales is of significant concern. Concerns expressed by the fishing sector in relation to the impact of fish-eating birds on wild and stocked fisheries, led NRW to establish an independent Fish-eating Birds Advisory Group in 2020. To aid development of a NRW licensing position on the predation of salmonids by fish-eating birds, a suite of NRW evidence reports were published (see section 3.6).

A recommendations paper from the Fish-eating Birds Advisory Group to NRW was broadly accepted by NRW and formed the basis for a review of NRW's approach to licensed control of fish-eating birds.

Review of NRW's approach to regulating the shooting and trapping of Wild Birds: General Licences

All wild birds in Wales have legal protection. Under the Wildlife and Countryside Act NRW has powers to authorise others to kill or take particular species of wild birds, eggs and nests for certain purposes (e.g. to prevent serious damage to crops, livestock or fisheries, to protect public health or safety or to conserve other species of wildlife). Between 2021-2022 NRW undertook a review of how these powers were exercised and determined what improvements were required. A Call for Evidence was undertaken, a set of proposals were developed and presented in a 12-week public consultation and a number of NRW evidence reports were published to inform decision-making (see section 3.6) . The outcome of this work was the retention of general licences as part of NRW's regulatory duties, the removal of several target species from general licences, a review of NRW advice and conditions and a set of high level principles to aid NRW's approach to licensing.

LIFE projects relevant to birds

A number of avian LIFE projects relevant to Wales have been undertaken during the reporting period. These include:

Biosecurity for LIFE

Safeguarding the UK's globally important seabird island SPAs from invasive alien species (LIFE17 GIE/UK/000572), August 2018 to July 2023. This project looked at three principal biosecurity steps: prevention, early detection and rapid incursion response. To facilitate the last step, incursion response hubs were created around the UK, including Wales, fully equipped to deal with any incursion of an invasive mammalian predator and a network of volunteers have been recruited to operate these hubs and react to any island incursion event. Biosecurity for Wales continues to work and implement and improve long-term biosecurity practice across all Welsh breeding seabirds island classified as SPAs or designated as SSSIs (see section on Island Biosecurity).

LIFE Roseate Tern

The overall goal of this five-year LIFE14 Roseate Tern project (2015-2020) (LIFE14 NAT/UK/000394) was to improve the conservation prospects of Roseate Tern *Sterna dougallii* in the UK and Ireland, including Wales, and to contribute to a long-term goal of improving the conservation status of roseate tern across Europe. More specifically the project:

- Provided the conditions needed for a re-expansion of roseate tern in the UK and Ireland through enhanced management and restoration of all SPAs designated for this species.
- Identified long-term options for the management and establishment of tern colonies across northwest Europe, in view of predicted changes to the climate and coastlines.
- Improved understanding of key issues affecting Roseate Terns in northwest Europe and in wintering areas in West Africa.
- Developed and disseminated guidance and plans for the management of Roseate Tern breeding sites.
- Developed the conservation strategy covering the whole northwest European metapopulation of Roseate Tern.

LIFE Little Terns

The overall aim of the six year (2013-2019) LIFE Little Terns project (LIFE12 NAT/UK/000869) was to lay the foundations for the long-term recovery of the Little Tern *Sterna albifrons* in the UK, including Wales, by securing robust breeding populations at key sites. Specifically, this was achieved by:

- Increasing the total population of Little Terns across the project sites (SPAs) through enhanced management of existing breeding sites and restoration and creation of new sites. This will help to offset colony loss through the predicted effects of climate change and sea level rise. The main focus will be on the implementation of intensive, targeted management actions, including the control of public access and predation at 20 of the most important sites in the UK, selected primarily on colony size. This is expected not only to improve the species' status at the targeted sites but also to increase the population at the national level.

- Ensuring that the general public is sympathetic to the project and supports the long-term protection of the project sites. Signs will be erected at key sites and information materials disseminated. Most Little Tern breeding sites experience heavy visitor pressure, and management of recreational users is key to the long-term viability of the colonies at these sites. Where access is to be restricted in the breeding season it will be important to secure public support.

LIFE Curlew

The five-year (2020-2025) LIFE Curlew project (LIFE19 NAT/UK/000844) aimed to halt the decline of breeding Curlew in five priority landscapes across the UK, including Wales, and to define and catalyse the future action needed to maintain viable populations of curlew within these landscapes by:

- Enhancing conditions for breeding curlew using best-practice conservation methods in the selected landscapes, to halt curlew population declines.
- Evaluating responses to this work through monitoring of habitat condition, predator abundance, curlew abundance and breeding success.
- Developing post-project plans to maintain viable populations in the selected landscapes and halt the decline of curlew elsewhere across the UK.
- Increasing understanding of the importance of curlew breeding in the UK, and of ways to help them, among local communities and visitors in the priority landscapes and more widely.
- Creating and strengthening networks to relevant to share best-practice approaches to curlew conservation across the UK and EU and encourage and enable government bodies in the four countries of the UK to take large-scale, long-term conservation action for this species.

3.2 General information sources on the implementation of the UK Habitat Regulations for birds reporting

General information on Directive

General information is provided on the EC Birds Directive (as amended 2009/147/EC) and JNCC provide general information on Habitats Regulations reporting.

General information on the UK Special Protection Area (SPA) network

SPAs, together with Special Areas of Conservation (SACs) form the UK's national site network. JNCC is responsible for advising the UK Government and the devolved administrations on aspects of the classification and management of SPAs from a UK perspective, including reporting on the implementation of the UK SPA programme and the status and trends of protected bird species. JNCC also has specific responsibilities for advising on the classification and management of SPAs in the UK offshore area. Further information on UK offshore SPAs and our Marine Protected Area (MPA). General information on SPAs can be found on JNCC's website.

JNCC, in collaboration with NatureScot (formerly Scottish Natural Heritage), Natural England (NE), Natural Resources Wales (NRW) and the Department of Agriculture, Environment and Rural Affairs (DAERA) has undertaken extensive survey and data collection to identify important aggregations of seabirds and waterbirds. In Wales, there have been three marine SPAs that have been either newly classified or extended and renamed since 2017, these are Anglesey Terns / Morwenoliaid Ynys Môn UK9013061, Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer,

Sgogwm a Moroedd Penfro UK9014051; Northern Cardigan Bay / Gogledd Bae Ceredigion UK9020327 and one cross border SPA in Wales / England, Liverpool Bay / Bae Lerpwl UK9020294.

Further information about SPAs in Wales can be found at the SPA page of DataMap Wales.

Monitoring schemes

Similar to the rest of the UK, Wales is fortunate in that, thanks to the efforts of hundreds of dedicated volunteer birdwatchers working in tandem with professional research and conservation organisations, birds are one of the best-monitored taxonomic groups anywhere in the world. Their huge input and interest, is acknowledged without which knowledge of Wales' changing birds would be immeasurably poorer and the implementation of the Habitats Regulations more difficult.

Under Article 10 (EU Birds Directive), work has continued to consolidate and further improve surveillance of birds in the UK (in both terrestrial and marine environments), typically through support of monitoring schemes co-funded by both government agencies and the non-government sector working in partnership. Particular emphasis has been given to maintaining levels of surveillance in times of economic constraint which is absolutely essential to maintain basic levels of data collection of value not just for bird conservation but also wider environmental monitoring needs.

In determination of population estimates no single source of information exists, and the information presented in this report was collated from a number of UK monitoring schemes and data sources, notably:

- The Breeding Bird Survey (BBS) give Welsh trends for common and widespread breeding birds (e.g. BTO-JNCC-RSPB BBS Report 2024). For long-term trends, and where statistical feasible, combined BBS/Common Bird Census (CBC) trends are applied. To determine BBS trends, species require a reporting threshold of 40 1-km squares. For some breeding species in Wales, such as Wood Warbler *Phylloscopus sibilatrix* and Pied Flycatcher *Ficedula hypoleuca*, sample sizes are below the reporting threshold and are thus insufficient to produce trends.

- For a small number of riverine species, trend information from the Waterways Breeding Bird Survey (WBBS) has been used.

- For seabirds, annual trend information is derived from the Seabird Monitoring Programme (SMP) that monitors a UK-wide sample of colonies since 1986. Where trend information from annual monitoring do not exist, short- and long-term trends are provided from four complete censuses from Operation Seafarer (1969-70, Cramp *et al*., 1974); the Seabird Colony Register (1985-88, Lloyd *et al*., 1991); Seabird 2000 (1998-2002, Mitchell *et al*., 2004) and Seabirds (Count 2015-2021, Burnell *et al*., 2023).

- Winter Non-breeding Gull Survey (WiNGs) takes place every ten years and has been repeated since 1952/53. The latest survey took place in the winters

of 2023/24 and 2024/25 (About WinGS | BTO). The purpose of the survey is to produce robust population estimates of winter gulls in the UK and an understanding of distribution and increase or decreases, especially since the mass die offs from Avian Influenza in 2022/2023.

- The Non-estuarine Waterbird Survey (NEWS) is undertaken every six years and covers the non-estuarine areas that are not surveyed by WeBs. NEWS contributes to revised non-estuarine waterbird population estimates for the UK and its constituent countries. This gives a better understanding of the population estimates for coastal species such as Purple Sandpiper *Calidris maritima*, Turnstone *Arenaria interpres* and Sanderling *Calidris alba*. The last NEWS survey was in 2017.

- For many native and non-native non-breeding waterbirds, annual Welsh trend information comes from the Wetland Bird Survey (WeBS) and the Goose and Swan Monitoring Programme (GSMP) which provide annual trends for most wildfowl from 1966/67 onwards and for waders from 1974/75 onwards.

- For rare breeding birds (broadly defined as species with UK populations of less than 2,000 pairs), trend information is collated from the Rare Breeding Birds Panel (RBBP) for native and non-native species, unless better quality assessments were available from national surveys. For rare Welsh breeders, trends are calculated based on comparison of five-year mean values straddling the report periods i.e. 1978-1982 to 2012-2016 for long-term trends, and 2001- 2005 to 2012-2016 for short-term trends.

- For a number of scarce Welsh breeding species not well monitored by RBBP but too scarce to be monitored by BBS, trends are calculated from comparison of population sizes derived from national surveys undertaken through the Statutory Conservation Agency/RSPB Annual Breeding Bird Scheme (SCARABBS) now replaced by the Scarce Breeding Birds Survey administered through the UK Bird Monitoring Framework Group.

- For a small number of Welsh species where other sources are not available valid trends are derived from analytical comparisons of the three breeding bird atlases of Britain and Ireland: 1968-72 (Sharrock 1976), 1988-91 (Gibbons *et al*., 1993) and 2007-11 (Balmer *et al*., 2013).

- The trends of a small number of Welsh species remain as unknown, typically as a consequence of the logistical problems of undertaking monitoring and/or methodological difficulties (e.g. Common Snipe *Gallinago gallinago*, Hawfinch *Coccothraustes coccothraustes*).

- Other important national schemes report on other avian demographic metrics such as adult survival through the Retrapping Adults for Survival (RAS), the Constant Effort Sites scheme (CES) and breeding success through the Nest Record Scheme.

- The Predatory Bird Monitoring Scheme (PBMS) is a long-term, national monitoring scheme that quantifies the concentrations of contaminants in the livers and eggs of selected species of predatory birds in Britain.

- As a consequence of the UK epizootics of Highly Pathogenic Avian Influenza (HPAI) in 2021 and 2022 within poultry, captive birds and wild birds, Defra developed a UK reporting tool for poultry, other captive birds and wild birds.

Protection of species

The UK is a Contracting Party to a range of environmental Conventions, often referred to as Multilateral Environmental Agreements.

The JNCC provides scientific and technical advice to the Government and the UK Statutory Nature Conservation Bodies (SNCBs) on the interpretation, application and implementation of the Convention and its agreements. This includes advising on the appropriateness of protection proposals; having input to the research work and advising on the potential impact of resolutions or guidance proposed for adoption at Conferences of the Parties.

In Wales, NRW supports Welsh Government and JNCC with the provision of expert advice and input to the following UK ratified Conventions/international agreements: Bonn Convention, Ramsar Convention, Bern Convention and OSPAR convention, for details see the JNCC webpage on International conventions.

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention or CMS)

The Convention of Migratory Species (CMS) provides a global platform for the conservation and sustainable use of migratory animals and their habitats. CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range. The UK ratified the CMS in 1985. The legal requirement for the strict protection of CMS listed Appendix I species is provided by the Wildlife & Countryside Act (1981 as amended).

The UK has ratified two legally-binding bird-related Agreements under the Convention:

- The African-Eurasian Migratory Waterbird Agreement (AEWA);
- The Agreement on the Conservation of Albatrosses and Petrels (ACAP)

The Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), ratified by the UK in 1999, is particularly relevant to Wales, where NRW provides expert technical advice to JNCC, Welsh Government and internationally. NRW provide technical comment to the International Single Species Action Plans for the conservation of Eurasian Curlew and Greenland White-fronted Goose and sit on the respective AEWA international working groups.

The UK has also ratified the following Memorandum of Understanding (MoU):

- The African-Eurasian Migratory Waterbird Agreement (AEWA);
- the Convention of Migratory Birds of Prey in Africa and Eurasia

Convention on Wetland of International Importance (or The Ramsar Convention)

The Ramsar Convention was adopted in Ramsar, Iran in February 1971 and came into force in December 1975. It provides the only international mechanism for protecting sites of global importance and is thus of key conservation significance.

The Convention covers all aspects of wetland conservation and ‘wise use’. It has three main 'pillars' of activity:

- the designation of wetlands of international importance as Ramsar Sites;
- the promotion of the wise use of all wetlands in the territory of each country; and
- international co-operation with other countries to further the wise use of wetlands and their resources.

As of January 2025, there are 176 designated Ramsar sites in the UK its Overseas Territories and Crown Dependencies, covering over 1 million hectares. In Wales, there are seven designated Ramsar sites covering 11,366 hectares and a further three cross border sites with England covering an additional 40,553 hectares. The latest UK Ramsar National Report was submitted to the Ramsar Secretariat in October 2024.

The Convention on the Conservation of European Wildlife and Naturel Habitats (or the Bern Convention)

The UK Government ratified the Bern Convention in 1982. The obligations of the Convention are transposed into UK law by means of the Wildlife and Countryside Act (1981 as amended).

The principal aims of the Convention are to ensure conservation and protection of wild plant and animal species and their natural habitats, to increase co-operation between contracting parties, and to regulate the exploitation of those species (including migratory species). To this end the Convention imposes legal obligations on contracting parties, to protect over 500 wild plant species and more than 1,000 wild animal species (listed on Appendices I and II of the Convention).

Convention for the Protection of the Marine Environment of the North-east Atlantic (OSPAR Convention)

International co-operation to protect the marine environment of the north-east Atlantic is achieved through the OSPAR Convention. The UK ratified OSPAR in 1998, and Annex V and Appendix 3 in June 2000

JNCC plays an active role in providing advice to Government to support OSPAR commitments, particularly in relation to implementation of Annex V on Biodiversity

Strategy. Furthermore, JNCC leads on the development of impulsive noise, benthic, seabird and cetacean indicators and also manages the habitat mapping database on behalf of OSPAR.

UK National Wildlife Crime Unit (NWCU)

The police-led UK National Wildlife Crime Unit (NWCU) assists in the prevention and detection of wildlife crime by gathering intelligence and providing analytical and investigative support to the police and other enforcement authorities and statutory agencies, domestically and internationally. See section within this report on Addressing illegal persecution of birds of prey for more details.

Transposition of the Birds Directive (legal texts)

For details see section on transposition of Directives within the GIR.

3.3 National Site Network (SPAs) – site classification (Art.4)

During the 2019–2024 reporting period, Wales maintained a network of 21 Special Protection Areas (SPAs). Collectively, these sites cover a surface area of approximately 8,004.87 km², comprising:

- 12 marine SPAs (total area: 7,231.85 km²), which include:
    - 7,047.12 km² of marine area
    - 184.73 km² of terrestrial area
- 9 terrestrial SPAs (total area: 773.02 km²), excluding any sites with marine components.

Note: The areas presented above reflect the full extent of each SPA, including any portions that lie in England or offshore. No adjustments have been made to separate out the area specifically within Welsh jurisdiction.

These figures are based on the UK-wide Standard Data Form update, submitted as part of UK national site network reporting and last revised on 10 April 2025.

3.4 Set of conservation measures and management plans for SPA

Site-level conservation objectives have been developed for nearly all SPAs in Wales, following the concept of favourable conservation status (FCS) as defined in the Habitats Directive. While FCS is not a statutory obligation at the individual site level, it provides a practical framework for defining the desired condition of habitats and species.

For terrestrial SPAs, these objectives are set out in Natura 2000 Core Management Plans, which also include monitoring results and recommended actions. For marine

SACs, conservation objectives are provided through Regulation 37 advice packages. Where designations overlap, a single document may cover multiple sites. Further information, including site-specific management plans and conservation advice documents, is available via the NRW Find protected area of land and sea search tool.

These instruments are supported by the NRW Protected Sites database (Safle), which records site-specific conservation actions and enables the generation of Prioritised Improvement Plans (PIPs). PIPs are prioritised, costed plans that summarise the actions needed to improve the condition of designated features. They are live documents, informed by the Protected Sites database, and are updated as actions are completed or new ones are identified. This approach was developed through collaboration with NRW Conservation Officers and partners, and supports the delivery of the LIFE Natura 2000 Programme's Thematic Action Plans, which address key pressures and risks across the network.

This integrated approach allows NRW to assess conservation needs across Wales, allocate resources effectively, and align site-level actions with broader initiatives such as Area Statements under the Environment (Wales) Act 2016.

3.4.1 & 3.4.2 Extent of conservation measures and management plan coverage across SPAs

Necessary conservation measures, as required under Article 6(1) are in place and being applied across 17 of the 21 SPAs in Wales, covering 79.3% of the network by area.

Comprehensive management plans or equivalent instruments are in place for 21 of the 21 SPAs in Wales, covering 100% of the network (including updated documentation published in June 2025).

All nine terrestrial SPAs in Wales have a core management plan in place. Four marine SPAs have a core management plan in place. Additionally Grassholm SPA has a core management plan and a Regulation 37(3) and condition assessment published in June 2025. An additional three sites also had Regulation 37(3) document and condition assessment published in June 2025. One site had a Regulation 37(3) document published in June 2025. Both the Severn Estuary and the Dee estuary have a Regulation 33 document covering the site. Liverpool bay has a conservation advice package from 2009 covering the site.

3.5 Measures taken in relation to approval of plans and projects (Art. 6.4 and Art. 7 of the Habitats Directive)

No terrestrial or marine plan or projects have required compensatory measures within Welsh SPAs in this reporting round.

3.6 Research and work required as a basis for the protection, management and sustainable use of bird populations

Work undertaken in Wales

Developing a licensing position on the impacts of predation by fish-eating birds on Salmonid populations

The majority of salmonid (Atlantic Salmon and Sea Trout) populations in Wales are now at historically low levels. In response to these declines, supported by a Ministerial request, NRW published a Plan of Action for Salmon and Sea Trout in Wales in April 2020. In seeking to better understand the extent to which fish-eating birds might be impacting on stocks, the Plan identified the need to establish a Wales Fish Eating Birds Advisory Group ('FEB Advisory Group') with the mandate to lead an evidence-led review to help develop new policy in relation to the licensed control of Cormorant *Phalacrocorax carbo* and Goosander *Mergus merganser* in Wales

In 2022, the Wales FEB Advisory Group submitted a recommendations paper to NRW to facilitate further development and implementation of policy in relation to the management of fish-eating birds in Wales, with the primary aim of aiding the recovery of depleted fish stocks.

Through the implementation of a set of actions between 2023-2025, NRW will reduce predation pressure by fish-eating birds on wild salmonid populations while also recognising duties to safeguard the conservation status of Cormorants and Goosanders.

Natural Resources Wales Evidence Reports

Carss, D., N. and Russell, I., C. 2022. A synopsis of UK and European cormorant and goosander dietary studies. NRW Evidence Report Series (**No. 591**).

Macgregor C.J., Boersch-Supan, P., and Taylor, R.C. 2022. Spring 2021 survey of Cormorant and Goosander on the River Usk. NRW Evidence Report Series (**No. 593**).

Macgregor, C.J., Boersch-Supan, P.H., Burton, N.H.K., Carss, D.N., Newson, S.E., Pearce-Higgins, J.W., Robinson, R.A., and Taylor, R.C. 2022. Informing decisions on lethal control of great cormorant and goosander in Wales: scenarios from Population Viability Analysis. NRW Evidence Report Series (**No. 615**).

Russell, I. C. and Carss, D. N. 2022. Appraisal of the effectiveness of non-lethal and lethal control of fish-eating birds in preventing serious damage to natural and stocked fisheries**.** NRW Evidence Report Series (**No. 594**).

Taylor, R.C., Boersch-Supan, P., Cooper, C., O'Connell, P., Wetherhill, P., Bowgen, K., MacGregor C. and Calladine, J. 2022. A winter census (2020/21) of cormorant and goosander in Wales. NRW Evidence Report Series (**No. 592).**

Taylor, R.C., Austin, G., Boersch-Supan, P., Bowgen, K., Burton, N., Calladine, J., Noble, D., Robinson, R. 2022. 2020/21 Winter Census of Cormorant and Goosander in Wales: Design and Analytical Approach. NRW Evidence Report Series (**No. 598).**

Hen Harrier satellite-tagging in Wales to determine 1st year survival

Hen harrier is a high priority for Wales. Since 2017, 31 hen harrier nestlings have been fitted with satellite tags, funded by the Hen Harrier LIFE project (2015-19), Welsh Government (2020) and Natural Resources Wales (2022). The focus for this work was to track the birds during their lifetime to increase our understanding of the recruitment rate into the breeding population and the impact of different factors on survival. This work is currently being analysed in combination with the wider UK Hen Harrier satellite tagging programme (Sheard *et al*., in prep).

Natural Resources Wales Evidence Reports

Ewing, S.R., Sheard, E.J., MacDonald, M.A., Owen, N., Downing, S., Ashton-Booth, J., Hughes, J. and Offord, K. In prep. Space use and survival of satellite-tracked Hen Harriers *Circus cyaneus* in Wales. NRW Evidence Report Series (in prep).

Wotton. S.R. 2023. Status of the Hen Harrier *Circus cyaneus* in Wales 2023. Unpublished NRW Evidence Report Series (**No. 798**)

Wales Chough Research Programme

Wales, holds nearly 75% of the UK breeding and wintering Chough *Pyrrhocorax Pyrrhocorax* population, with 236 breeding pairs in Wales (Hayhow *et al*., 2018).

Due to the complexities of problems faced by breeding Chough no single action is expected to produce wide-spread recovery. A strong framework of action is considered essential to effectively deliver conservation, such action will need strong collaboration between scientists, conservationists, policy makers and landowners. To facilitate this framework, NRW have funded a Chough research programme, within the Wales Chough SPA network, predominantly to:

- Improve our understanding of the environmental correlates of occupation rate and productivity, along with tests of correlates of inter-annual variation in survival, particularly first-year birds.
- Develop demographic models to confirm our understanding of the processes driving population change

Natural Resources Wales Evidence Reports

Cross, A.V., Stratford, A., Johnstone, I., Thorpe, R.I.T., Dodd, S., Peach, W., Buchanan, G. and Moorhouse-Gann, R. 2020. Red-billed Chough Wales research programme. Unpublished Natural Resources Wales Science Report Series (**No. 486**).

Haycock, B., Hodges, J. and Johnstone, I. 2021. Long-term patterns in Red-billed Chough territory occupation and breeding performance in Pembrokeshire. NRW Evidence Report Series (**No. 634**).

Recovery of breeding Curlew in Wales

Curlew is considered to be the most pressing avian conservation priority in Wales. To aid the conservation status of Curlew in Wales, the Curlew Recovery Plan for Wales was published in 2022 together with statements by Gylfinir Cymru / Curlew Wales on the role of predation control (Gylfinir Cymru Predation Statement) and Curlew Head-starting (A framework for head-starting Eurasian Curlew in Wales).

There is broad agreement on the urgent need for 'intelligent and realistic' conservation actions to halt and reverse the decline of breeding Curlew in Wales. To meet this challenge, Natural Resources Wales commissioned:

- a review to determine the multiple socio, economic and environmental benefits that may be derived from positive Curlew conservation action (Goodall *et al.,* 2023);

- a four-year study to assess breeding season movements of Welsh Curlew within upland and lowland farmed landscapes. Between 2016, 2018 and 2019 a total of 26 Curlew were caught and fitted with GPS tags across three study sites in North Wales (Taylor *et al.,* 2020); and,

- an analysis of data from Curlew chick radio-tracking across five landscapes in the UK over a ten-year period to investigate correlates of chick survival (site, year, weather and management interventions), quantify predators of Curlew chicks, and identify associations between predator abundance with site, year and predator control (Sheard *et al*., in prep).

Natural Resources Wales Evidence Reports

Goodall, M., Hoodless, A., Evans, S., Grayshon, L. and Perkins, A. 2023. Review of the wider societal, biodiversity and ecosystem benefits of curlew recovery in Wales. NRW Evidence Report Series (**No. 629**).

Sheard, E.J., Douglas, D., Macdonald, M.A., Tománková, I and Hughes, J. In prep. Survival analysis of radio-tagged Curlew chicks across the United Kingdom. NRW Evidence Report Series (in prep.).

Taylor, R., C., Bowgen, K., Burton, N, H., K., & Franks, S, E. 2020. Understanding Welsh breeding Curlew: from local landscape movements through to population estimations and predictions. NRW Evidence Report (**No.485**).

A review of Natural Resources Wales' approach to regulating the shooting and trapping of wild birds

The review looked at the different types of permissions that NRW grant, and the processes used to deliver these activities to help shape our future approach to the permissions NRW give for shooting and trapping wild birds in Wales and the destruction of their eggs and nests.

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3.7 Non-native bird species

Since non-native bird species were excluded from the Birds Directive (other than Canada Geese *Branta canadensis*, Pheasant *Phasianus colchicus* and Wild Turkey *Meleagris gallopavo* which are listed on Annex II), reporting on the status of non-natives was outside the scope of the Habitats Regulations 9A Birds report.

3.8 Review of other assessment processes for birds

The Bern Convention

The Bern Convention underpins the provisions of the Birds Directive. Following exit from the EU, the UK, as a signatory of the Bern Convention is still required under Res. 8 to report on the conservation status of European protected species of bird (as

listed under Res. 6). The format of these reports is likely to be very similar to the formats required for the Habitats Directive, as Bern seeks to achieve further alignment with European Environmental Regulations Reporting.

UK Marine Strategy & the OSPAR Convention

The EU Marine Strategy Framework Directive was transposed into UK law as the Marine Strategy Regulations in 2010. Following EU-Exit, these were amended to The Marine Environment (Amendment) (EU Exit) Regulations 2018 (no. 1399). Under both the old and new Regulations, the four UK Devolved Administrations work together to implement the UK Marine Strategy. The Strategy sets out a comprehensive framework for assessing, monitoring and taking action across our seas to achieve the UK's shared vision for clean, healthy, safe, productive and biologically diverse seas. The strategy is in three parts and each part is updated and reported separately on a six-year cycle:

Part 1 – Assessment and definition of Good Environmental Status (GES): 2012, 2018, due in 2024.
Part 2 – Monitoring Programmes: 2014, 2020, due in 2026
Part 3 – Programme of measures: 2016, awaiting publication in 2023.

A UK Marine Strategy assessment of marine bird species was undertaken in 2018. They include species of seabird, wildfowl and waders that rely on coastal and marine environments. The main difference between these UK Marine Strategy (UKMS) marine bird assessments in 2018 and the species reporting under Birds Directive in 2019 were i) UKMS used thresholds to quantitatively assess indicators (e.g. abundance trends); ii) UKMS used more indicators than just abundance and distribution (e.g. breeding success); iii) UKMS assessed GES of multi-species groups; iv) UKMS used data from other countries bordering UK waters. The abundance indicator is used in Indicator C3: Diverse seas: status of marine mammals and marine birds (defra.gov.uk) as part of Defra's Outcome Indicator Framework for its 25Year Environment Plan.

OSPAR in collaboration with other countries developed the methods for assessing marine bird status under the UK Marine Strategy. OSPAR contracting parties who are also EU member states use the OSPAR convention to provide the regional co-operation that implementing the MSFD requires. Over the last few years, Member states and the European Commission have been working within OSPAR to better align the assessment work undertaken under the Birds and Habitats Directives and the MSFD. The UK has and continues to be a strong and influential partner in OSPAR. The UK has had a lead role in the latest OSPAR marine bird assessments, which will be published in OSPAR's Quality Status Report of the Northeast Atlantic 2023. Marine bird indicators have already been published online.

These latest OSPAR assessments of birds will be used to update the UKMS Part 1 in 2024. The methods for assessing GES in birds will be slightly different to those used in 2018. They are prescribed by a Commission Decision (2017/848/EU), which was also captured in UK legislation following EU exit. Under this new approach, the status of each species' breeding and/or non-breeding population is assessed as 'good' or 'not good' using thresholds attached to indicators of non-breeding abundance, breeding abundance and breeding productivity. This is 'favourable

conservation status' in all but name. GES is assessed for each of five species groups and is considered to be achieved if 75% or more species/populations are in good in status.

Birds of Conservation Concern and GB IUCN Red List

The assessment of the UK's and Wales' Birds of Conservation Concern (BoCC) uses standardised criteria to allocate species to Red, Amber or Green lists depending on their level of conservation concern. BoCC UK and Wales use the following criteria: Global IUCN Red List status, European Red List status, historical population decline, recent population decline, range decline, rarity, localisation, and international importance. The first formal assessment for UK birds was published in 1990 (Batten *et al*., 1990), and four further assessments have since been published, mostly recently in 2021 (Stanbury *et al*., 2021; Stanbury *et al*., 2024). In Wales the first assessment was (Thorpe and Young, 2002), since then three further assessments have been published (Johnstone *et al*., 2010; Johnstone and Bladwell, 2016; Johnstone *et al*., 2022. Due to the impact of Avian Influenza (AI) a seabird addendum was published (Johnstone *et al.,* 2024).

BoCC has raised the profile of the decline of farmland birds, the plight of woodland birds, Afro-Palearctic migrants and upland birds, as well as showcasing conservation success stories.

More recently, British birds have been assessed twice using the IUCN Red List Criteria (Stanbury *et al*,. 2017; Stanbury *et al*,. 2021). The IUCN GB Red List assessment process uses well-established, internationally recognised, and standardised criteria to assess extinction risk. IUCN Red List assessments are used to assess the global status of species, but can also be applied at regional, national or local scales to assess the risk of extinction at that scale. The IUCN Red List Criteria apply quantitative thresholds to various combinations of population size and decline, range size and decline, and quantitative analysis of extinction risk. Due to data constraints there are no IUCN Wales Red List assessments for birds.

The use of the IUCN Regional Red List assessment allows the status of bird species to be compared with those of other taxa. The Red List status of bird species in the UK can also be compared with those of birds at other geographic (and global) scales. Furthermore, Red List Indices can be used to track changes in Red List status over time for groups of species. Red List Indices have been identified as indicators for several targets in the Global Biodiversity Framework and can be used to report biodiversity trends at national scales (Raimondo *et al*., 202).

UK and Country Biodiversity Indicators

The UK has a set of 24 Biodiversity Indicators to report on progress against the Aichi targets within the Strategic Plan for Biodiversity 2011-2020 negotiated under the Convention on Biological Diversity (CBD). The UK Biodiversity Indicators (UKBI) formed a major part of the United Kingdom's 6th National Report to the CBD in 2019. One of these indicators is UKBI - C5 Birds of the wider countryside and at sea. C5 is made up of six separate UK bird indicators covering different ecological groups (all birds, breeding farmland birds, breeding woodland birds, breeding wader and

wetland waterbirds, breeding seabirds, breeding upland birds and wintering waterbirds).

Each indicator shows a timeseries trend in the annual geometric mean abundance index of multiple species. They also show the proportion of species exhibiting different degrees of increase or decline over the long and short-term. Comparable indicators of similar species groupings have been produced as part of national biodiversity indicator suites in Scotland, England and Northern Ireland. The country indicators use the same multispecies trend approach. There are no Welsh bird indicators.

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