

Network Rail's summary report (period between Jan 2023 and Dec 2025) on compliance with the Environment (Wales) Act 2016

Author: Angharad Owen, Biodiversity & Ecology Manager,
Engineering and Asset management Directorate



Wales and
Borders

Contents

Executive Summary	3
Introduction	5
Biodiversity and Sustainable Land Use at Network Rail	14
The Future - a Railway for Nature and People	18
Conclusions and Summary	28

Executive Summary

Network Rail is committed to enhancing and maintaining the biodiversity value of its land where possible and reasonably practicable. One of our key principles in Network Rail's 'Environment policy'¹ is that *"We will manage our land sustainably including consideration of our impacts on Biodiversity"*. We regularly consult with external stakeholders, including Natural Resources Wales (NRW) and the Local Authorities, to agree mitigation for works in areas where there are protected species and habitats present, and in relation to permissions and adjacent protected sites.

One of the five attributes of the DECCA framework² to achieve Net-Benefit for Biodiversity in Wales, is Connectivity. Connectivity across the landscape can improve ecosystem resilience. In the current programme of works we are aiming to deliver and develop resilient ecological networks (e.g. wildlife corridors) establishing a pragmatic direction in relation to balancing a safe operational railway, while

¹ [Environment Policy](#)

² [Net-Benefits-briefing.pdf](#)

maintaining and enhancing biodiversity wherever possible. The Section 6 duty is a consideration for activities undertaken by Network Rail in Wales, and we are aiming to provide green infrastructure and design enhancements where the opportunities exist.

There is a plan to upskill and enhance the knowledge of staff across the business and functions, and we have increased the number of internal Ecologists on the Route.

Since 2019, Ash Dieback has unfortunately spread across the UK at a rate that was not anticipated. As the Network Rail lineside estate has a significant number of trees that had not previously been surveyed, there has been a significant advancement in bringing forward surveys that were planned. This was reported in a Network Rail article on our website³ in December 2021 with a quote from NRW regarding the impact on Biodiversity:

Andrew Wright, specialist advisor, Natural Resources Wales, said:

"Ash Dieback is one of the most significant tree diseases to affect the Welsh landscape, ash trees affected by this disease potentially pose a significant health and safety risk and we understand the measures

³ ['Tree-mendous:' How Network Rail's biggest ever tree survey in Wales is improving railway safety and biodiversity \(networkrailmediacentre.co.uk\)](#)

taken by Network Rail to reduce the risks and welcome any work to recover lost biodiversity.”

This report aims to fulfil the requirement to report on our Section 6 duty. It highlights some key examples of how Network Rail in Wales are contributing positively towards maintaining and enhancing biodiversity and embedding consideration of biodiversity into our ways of working.

Photo 1 Train crossing Pont Briwet at Penrhyndeudraeth (Image credit: Angharad Owen, Network Rail).



Introduction

This document serves as a summary report to fulfil Network Rail, Wales & Borders Route's obligation under the Environment Wales Act 2016 and report on what Network Rail has done to comply with the Section 6 duty.

This report acts a Summary report for the period between January 2023 to December 2025.

As a public authority Network Rail in Wales have a duty to comply with the Section 6 'biodiversity and resilience of ecosystems duty' (the 'Section 6 duty') under the Environment Wales Act 2016, in the exercise of its functions in Wales. In December 2019, Network Rail published their Section 6 summary report⁴ which included a summary of key objectives and setting out what we propose to do to maintain and enhance biodiversity and promote resilience.

Network Rail are fully committed to our sustainability obligations and have several existing workstreams which enable us to comply and meet the requirements of Welsh legislation. The Wales and Borders Route work with the wider Network to communicate the

⁴ [Wales Route Section 6 Summary Report P2 \(networkrailmediacentre.co.uk\)](https://networkrailmediacentre.co.uk)

Wales specific requirements for managing and improving Biodiversity when carrying out our work.

This report specifically focuses on the Section 6 duty that Network Rail Wales and Borders Route has under the Environment (Wales) Act 2016. The reporting largely follows the guidance provided by Welsh Government on their website⁵.

Network Rail

Network Rail own, repair, and manage the railway infrastructure across England, Scotland and Wales. Our infrastructure is located within land we own, and our functions relate to land and infrastructure management. We exist to get people and goods where they need to be and support Great Britain's economic prosperity. Our role is to run a safe, reliable, and efficient railway, serving our customers and communities. We are the fourth largest landowner in the UK and are actively seeking to be considered a key stakeholder when it comes to new guidance, policy or legislation being formulated regarding Biodiversity in Wales. Equally, we are proactively seeking to be considered a key stakeholder regarding landscape scale initiatives which cross our boundary such as Local Nature Partnerships (LNPs) and Area Statements, where applicable. Our lineside has a considerable number of trees, woodlands and

⁵ [Biodiversity and resilience of ecosystems duty \(section 6\): guidance for public authorities | GOV.WALES](https://gov.wales)

hedgerows which under Planning Policy Wales 12 (PPW12)⁶ describes these habitats as being of ‘*great importance for biodiversity*’ and ‘*important connecting habitats for resilient ecological networks*’, for instance as a corridor across the landscape for rare species including Dormice to use. Connecting habitats and ecological networks is a key attribute of ecosystem resilience as identified under the Environment (Wales) Act 2016⁷. Connectivity is also an attribute of the DECCA framework for ecosystems resilience⁸.

In 2019, Network Rail underwent a major reorganisation as part of the vision of ‘Putting Passengers First’. One of the main changes that occurred was for new Regions and Routes to be created. The Routes are responsible for the everyday running of the railway in each area including maintaining a safe working railway for passengers and the workforce. Looking ahead, in November 2025 the Railways Bill was introduced before Parliament⁹ and was given Royal Assent to progress and renationalise the Railways to form Great British Railways (GBR). Into the next reporting period from December 2025 there is likely going to be changes with Network Rail integrated into GBR.

⁶ [Planning Policy Wales - Edition 12](#)

⁷ [Essentials Guide: Sustainable Management of Natural Resources and our Well-being](#)

⁸ [Ecosystem Resilience in a Nutshell 1: what is ecosystem resilience?](#)

As a multidisciplinary organisation, Network Rail have many different departments and teams who have their own ways of working. Whilst Ecologists are integrated in for instance the Maintenance Delivery and Asset Management teams, we also utilise the expertise of external Consultants who provide direct advice and guidance to the teams they are working with such as on major infrastructure projects or programmes of work. During the current five-year funding period known as Control Period 7 (CP7), we are following the ‘intelligent client’ principle where Principal Contractors will deliver a programme of work and Network Rail will provide assurance, rather than directly manage delivery for projects outside of Maintenance work. We also have Sustainability staff who provide technical support and guidance to the teams across Network Rail on wider environmental issues.

Caring for our planet is important to us at Network Rail. Rail is already the greenest form of public transport and we’re on a journey to a cleaner, greener future with an aim to achieve net zero by 2050 in Wales via our decarbonisation programme¹⁰. Over the past 3 years, Network Rail has made significant progress in how we manage our estate regarding Biodiversity and Ecology. In December 2020, Network Rail published a Biodiversity Action Plan (BAP) and a revised sustainability strategy in May 2025¹¹. Progress against our

⁹ [Great British Railways and the public ownership programme - GOV.UK](#)

¹⁰ [A low-emission railway - Network Rail](#)

¹¹ [Greener-Railway-Strategy_May-2025.pdf](#)

strategic aims, performance, and progress to implementing the BAP will be reported on an annual basis through State of Nature¹² reports, which was a recommendation made by John Varley in his review of vegetation management at Network Rail¹³.

The Routes and Regions collaborate with the Network Rail national team, called the Technical Authority (TA), on strategic goals such as delivery of the Greener Railway Strategy. Regional staff also provide technical expertise into delivery of guidance and policy, thus ensuring local requirements (such as the Section 6 duty in Wales) are incorporated into National reporting. For instance, Wales and Western Region had direct input to the Network Rail's internal Standards such as the 'ENV122' Biodiversity standard and control documents, which was led by the TA. This new biodiversity ENV122 Standard includes requirements regarding use of the mitigation hierarchy when assessing impacts of work on biodiversity. Use of the mitigation hierarchy aligns with the Welsh Government's briefing on Net-Benefits for Biodiversity (NBB) and Stepwise approach outlined in PPW12 (expand what this stands for).

Background to the Wales and Borders Route

The Wales and Borders Route (hereafter referred to as the ("Wales Route")) operates as a subdivision of the Wales and Western Region

¹² [Biodiversity on Britain's railway - Network Rail](#)

(see Figure 1) within a national framework and covers approximately 850 route miles, with most of the Route crossing rural areas which have a rich array of biodiversity. The two main railway lines on the Wales Route (see Figure 2) are the South Wales Mainline from Swansea to Paddington via Bridgend, Cardiff, Newport and the

Figure 1 Map illustrating Network Rail's Regional boundaries



¹³ [Network Rail vegetation management review: valuing nature, a railway for people and wildlife - GOV.UK \(www.gov.uk\)](#)

Severn Tunnel; and the North Wales Mainline from Holyhead to Crewe.

The Wales Route is adjacent to, or within 1km, of over 100 UK and European protected sites.

Section 6 of the Environment (Wales) Act 2016 introduced an enhanced duty (known as the 'Section 6 duty') for public authorities in the exercise of functions within Wales. As a public authority Network Rail has a duty to comply with this duty, and other UK and European legislation, and provide evidence of doing so. It is recognised that ecology needs to be embedded in policies and standards, and across the organisation.

Interaction with Network Rail's operations and the natural environment is extensive. It is recognised by key internal stakeholders across the business, that Ecology is a discipline in which the risks should be effectively managed, and we should plan our work accordingly. We aim to integrate our Section 6 duty into the way in which we work. The Wales and Western CP7 delivery plan published in March 2024¹⁴, has set out an objective and commitment for the Region to make biodiversity improvements:

¹⁴ [Wales and Western CP7 delivery plan](#)

¹⁵ [A National Nature Network Sustainable Land Use Strategic Framework \(networkrail.co.uk\)](#)

"We will make improvements in biodiversity, through valued management of our lineside and utilisation of ecosystem services from our land, as well as developing "green infrastructure", such as green roofs, terraces, ponds with reed beds and station community gardens to habitat corridors and networks including woodlands and wetlands".

It is recognised that management of the lineside is the biggest area of opportunity to maintain and enhance biodiversity on our estate.

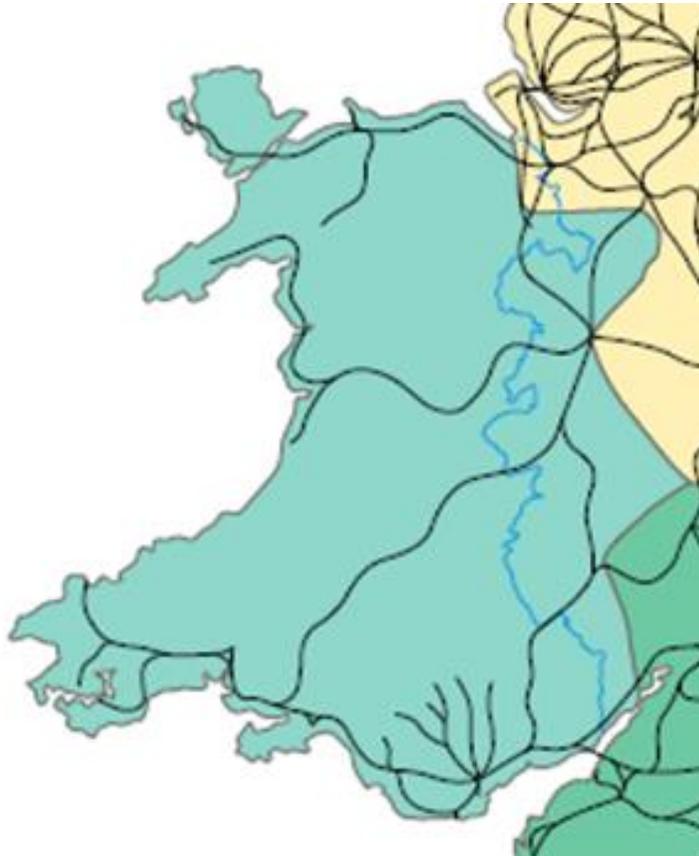
In 2023, Network Rail published a Sustainable Land Use Strategic Framework for a National Nature Network¹⁵, and this document describes Network Rail's vision and strategic aims to achieve a more sustainable way of managing our lineside estate.

Most of the Wales Route is adjacent to coastal habitats, and this has resulted in liaison with NRW and Welsh Government (WG) in relation to permitting works to maintain our infrastructure. The centre of Wales Route is a rural area, and the route which runs along the border is mostly rural but passes through major border towns. In March 2020 the Core Valley Lines (CVL) was transferred across to be managed by Transport for Wales (TfW) as those routes will now form part of the South Wales Metro¹⁶. The remaining routes across Wales are managed directly by Network Rail and therefore decision-

¹⁶ [Core Valley Lines Transformation | Transport for Wales \(tfw.wales\)](#)

making and responsibilities around managing biodiversity and ecology on our Assets across Wales remain with Network Rail.

Figure 2 Map illustrating the Wales and Borders Route (Image credit: Network Rail)



A 'Section 6 duty' under the Environment (Wales) Act 2016

Environment (Wales) Act 2016

The Environment (Wales) Act 2016 sets out a requirement for the sustainable management of natural resources and sets out a new legislative framework for managing the Environment in Wales. The Act presented three main products to focus on key objectives to deliver a viable change to achieve Sustainable Management of Natural Resources (SMNR) in Wales. These products were produced by NRW:

1. State of Natural Resources Report (SoNaRR)
2. Natural Resources Policy
3. Area Statements

The Section 6 duty under the Environment Wales Act, superseded and strengthens the previous 'biodiversity duty' which was detailed in the Natural Environment and Rural Communities Act 2006 (known as the NERC Act).

Wellbeing Duty

Whilst not directly covered by the related Wellbeing and Future Generations Act 2015', Network Rail recognises the importance of this wellbeing duty as it has a positive impact on the public in Wales,

and this ties in with our objective of ‘simpler better greener’ with our purpose to connect people and goods with where they are needed. The resilient Wales goal further strengthened the biodiversity duty requirement for other public bodies: “*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).*”

Rail transport is recognised as being a sustainable mode of transport, being a key part of an integrated transport system by linking with other public and active transport networks. The railway also acts as an enabler to allow members of the public to access the countryside for leisure purposes, such as interacting with their natural environment and facilitating positive health and wellbeing.

Priority Species and Habitats

In addition to the Section 6 duty, the Environment Wales Act also replaced the NERC Act Section 42 duty on the Welsh Minister to publish, review and revise lists of Priority Species and Priority Habitats in Wales which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

Under Section 6 of the Environment Wales Act, Public Authorities must have regard to:

¹⁷ [Natural Resources Wales / Area Statements](#)

- the Section 7 list of Priority Species and Habitats,
- the State of Natural Resources report (SoNaRR) published by NRW in 2016, and
- any Area Statements in areas where the public authority exercises its functions.

Area Statements

The Area Statements¹⁷ were first published by NRW in March 2020 and aimed to provide a place-based focus on working to deliver SMNR. In this respect NRW aim to work collaboratively in a joined-up way with their partners and stakeholders, when managing their natural resources in Wales.

There are seven separate Area Statements covering Wales, six terrestrial and one marine. The marine Area Statement covers the whole inshore marine area out to twelve nautical miles. Each Area Statement has emerging themes for the individual areas the statement relates to and identifies the key benefits of ecosystem services for each area through working with stakeholders.

Figure 3 Map of Area Statements in Wales (image credit: NRW)



Nature Recovery Action Plan for Wales

'The Nature Recovery Action Plan (NRAP) for Wales was refreshed in 2019¹⁸ and includes a key ambition to “*To reverse the decline in biodiversity, for its intrinsic value, and to ensure lasting benefits to society*”. The NRAP refresh included five new themes of action and sets out six objectives for how Wales will reverse the decline of biodiversity and address the Convention on Biological Diversity’s (CBD) commitments which the UK government committed to in 1992. In 2019 the CBD published a post-2020 Global Biodiversity Framework¹⁹. The 2050 vision of the CBD Strategic Plan for Biodiversity is:

“By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.” with its mission ‘to take urgent action to halt the loss of biodiversity’.

It is considered that each function of a Public Authority should contribute to the NRAP objectives and to promoting resilience, through addressing its attributes as detailed in the Environment (Wales) Act 2016. The NRAP was refreshed in 2019 in consultation with a range of stakeholders, however Network Rail were not consulted. As one of the largest landowners in the UK, Network Rail are actively seeking opportunities to engage with consultations and

¹⁸ [The Nature Recovery Action Plan for Wales 2020 to 2021](#)

¹⁹ [Post-2020 Global Biodiversity Framework](#)

working groups around the biodiversity and nature recovery agenda in Wales.

The revised objectives under the Part II refresh of the NRAP include:

- 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 habitats 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.

At the end of this report, an Action Plan is provided in Appendix B which aligns with the NRAP objectives.

Net-Benefit for Biodiversity and DECCA

Net-Benefit for Biodiversity (NBB) is referenced in Planning Policy Wales 12 (PPW 12):

“The nature emergency identifying and demonstrating how a net benefit for biodiversity will be secured and the attributes of ecosystem resilience enhanced, making the links to other land management activity, such as local nature recovery plans, and identifying land which may be required for the protection, retention and restoration and recovery of nature (and in providing a net benefit for biodiversity). This includes recognising the value of designated sites, and natural resources such as peatlands, as part of resilient ecological networks.”

Current guidance on how to achieve NBB refers to DECCA²⁰. The DECCA framework has the following attributes to:

- **diversity** between and within ecosystems.
- the **extent** or scale of ecosystems.
- the **condition** of ecosystems including their structure and functioning.
- the **connections** between and within ecosystems.
- and **adaptability of ecosystems** including their ability to adapt to, resist and recover from a range of pressures likely to be placed on them through climate change for example.

²⁰ [Net-Benefits-briefing.pdf](#)

The measurement of biodiversity in Wales through the NBB approach will aim to provide a quantitative approach. However, this and the practical application of the DECCA framework still require clear guidance around practical application to be delivered for the management of large-scale infrastructure, including linear major infrastructure such as Rail. The Environment Manager (Biodiversity & Ecology) in Wales & Western is completing an internal guidance note specifically to deliver against NBB on the Railway.

Photo 2 Train travelling South near Fairbourne (photo credit: Angharad Owen, Network Rail)



Biodiversity and Sustainable Land Use at Network Rail

The Vegetation Management Review

In June 2018, Jo Johnson MP (acting Minister for Rail), instructed John Varley to undertake an independent review into Network Rail's approach to vegetation management across England and Wales. This followed concerns about the impact that tree felling (considered necessary for the safe operation and performance of the railway) was having on nesting bird populations' (Varley, 2018). The Varley Review²¹ identified six recommendations in relation to lineside vegetation management, these are:

1. The Government must set out a clear policy position for Network Rail in terms of delivering for the environment.
2. Appropriate governance must be put in place at organisation, route and project level.
3. Network Rail should publish an ambitious vision for the lineside estate.
4. Network Rail must value and manage its lineside estate as an asset.
5. Network Rail must improve its communication with affected communities.
6. Network Rail should lead a cultural change for valuing nature and the environment.

In response to this review, Andrew Jones, the Secretary of State at DfT responded that Network Rail and DfT will work towards acting on the six recommendations. It was acknowledged by Andrew Jones that Network Rail is “*one of the largest landowners in the whole of the UK*” and that there will have to be “*a change in governance, organisation and culture within Network Rail, to ensure that these activities are better aligned towards achieving national biodiversity goals*”.

²¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/759698/valuing-nature-a-railway-for-people-and-wildlife-the-network-rail-vegetation-management-review.pdf

The objectives and actions which are stated in this document all contribute towards realising the recommendations within the Varley Review.

The Department for Transport's Lineside Policy

The 'DfT Policy' (dated July 2019)²² is the Department for Transport's (DfT) response to its recommendations from the Varley Review. The policy statement addresses the first of the Varley recommendations: "The government expects well designed and maintained habitat management of its lineside estate to be fully integrated into Network Rail's objectives, culture, decision-making and management processes.." and "The government expects Network Rail to carry out activities in a way that minimises harm, and wherever possible improves, the natural habitat".

Network Rail's Response to the Varley Review

Network Rail responded to the Varley Review in the document '*Valuing Nature a railway for nature and people. Response to the review of our vegetation management*'²³.

As a response to the Varley Review, Network Rail formed the Sustainable Land Use Programme (SLUP) board, which involved key stakeholders from across the business. The SLUP board provided

funding to Wales & Western for the Biodiversity Implementation Programme (BIP) in CP6. The BIP was the regional tool to implement the recommendations from the Varley Review, and funded demonstration projects (referred to as 'Pilot Sites') across the Region. The Pilot Sites provided deliverables including standard templates, improved ways of working and trialling habitat management techniques on our lineside. The BIP programme also laid a foundation for improved stakeholder engagement.

One of the main learning outcomes from the Pilot Sites projects was to promote improved decision-making around future habitat management, including habitat creation for both compensation and biodiversity enhancement activities. The Pilot Sites projects demonstrated the importance of the preliminary ecological appraisal as a vital stage in the decision-making process for habitat management works to identify what the existing habitats and species. Baseline data collected provided information on existing biodiversity so that we could work to enhance the habitats to support existing wildlife and species, rather than to for instance plant trees where it might not be beneficial as another priority habitat could be present. A final report from the Pilot Sites included a suite of Case Studies with shared learnings. Benefits of this programme of works has included embedding consideration of ecological constraints into planning of works, with project managers

²²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819833/enhancing-biodiversity-and-wildlife-on-the-lineside.pdf

²³ <https://cdn.networkrail.co.uk/wp-content/uploads/2019/07/Network-Rail-Recommendation-Action-Summary-Response-to-Vegetation-Management-Review.pdf>

in the delivery teams gaining confidence in how to integrate ecology into their planning and delivery of work. These lessons will be utilised in CP7 planning and delivery, to inform compensation for vegetation management on a larger scale and Biodiversity Net Gain (BNG) requirements. This includes provision for incremental biodiversity enhancements for large scale earthworks repairs in CP7, with this addition in the business plan unit rates because of learning from the BIP programme.

The BIP programme had far-reaching positive impacts on the way in which Network Rail manage Biodiversity and Ecology in the Region, with lessons learnt provided in areas including remitting of works, reporting requirements, procurement processes, communication with stakeholders, planning of work, pre-construction information, delivery, collaboration and providing evidence to support resource requirements. Through employing internal Ecologists within the Route and in the Regional Asset Management team to provide direct support and advice to their colleagues on managing ecology and biodiversity, this has provided demonstratable cost savings. Efficiency related to internal support with programming and planning of work effectively, has also been demonstrated via the BIP.

The Network Rail's Greener Railway Strategy (2025 -2050)²⁴ has a key vision to 'deliver the greenest, cleanest form of transport'. One

²⁴ [Greener-Railway-Strategy_May-2025.pdf](#)

of the four key priorities for Network Rail is for an 'Improved biodiversity of plants and wildlife'.

In April 2022, Network Rail published the strategic framework 'A National Nature Network'²⁵, with an aim to achieve the ambitious environmental and performance targets that have been presented in our responses to the Varley Review including the Sustainability Strategy objectives.

Weather Resilience and Climate Change Adaptation

Network Rail works closely with many governmental and specialist organisations to prepare our railway for the climate changes projected over the next few years, decades and beyond. Network Rail has produced a Greener Railway Strategy which incorporates sections on adapting to a changing climate.

It is acknowledged in the WRCCA strategy document, that "*Climate change poses a significant and escalating threat to the operational integrity of the Wales and Western (W&W) railway network. Severe weather events, such as intense rainfall and strong winds from the Southwest, are increasing in frequency, demanding urgent action. The W&W region is committed to addressing this challenge through*

²⁵ [A National Nature Network Sustainable Land Use Strategic Framework \(networkrail.co.uk\)](#)

a comprehensive plan extending into Control Period 7 (CP7) and beyond, focusing on safeguarding assets, embedding resilience into daily operations, and adapting to climate change impacts. Through proactively seeking opportunities to integrate nature-based solutions into our WRCCA workstream, and complying with internal biodiversity standards, Network Rail are working towards our Section 6 ‘biodiversity and resilience of ecosystems duty’ under the Environment Wales Act 2016, in the exercise of our functions in Wales.

The Shoreline Management Plan

A Shoreline Management Plan (SMP) is a large-scale assessment of the risks associated with coastal processes including tidal patterns, wave height, wave direction and the movement of beach and seabed materials. A SMP helps reduce these risks to people and the developed, historic, and natural environments. The Network Rail strategic interim study was published in March 2020²⁶. Network Rail had significant engagement with key external stakeholders including NRW, Gwynedd County Council, climate change experts and rail industry asset management teams in Wales & Borders route.

Photo 3 Train travelling along the coast at Ynys Hir (Image credit: Angharad Owen, Network Rail)



²⁶ [Understanding the impact of the Shoreline Management Plans on the railway across Wales & Borders](#)

The Future - a Railway for Nature and People

This section highlights examples of how the Wales Route are already showing commitment towards fulfilling the requirement of their Biodiversity Duty.

Embedding specialist internal capability on the Wales Route

Over the current Control Period (from April 2024 to March 2029), Network Rail on the Wales Route has illustrated strong commitment to embedding Ecologists with technical expertise into the Maintenance Delivery teams. We currently have eight Ecologist roles which have become integrated into the Maintenance delivery teams and one Regional Senior Ecologist role in Constructions Services who provide technical support with planning and delivery of work. The Ecologists within the delivery teams undertake ecology surveys,

provide toolbox talks and method statements, in addition to supervising works and assisting with procurement of Ecology surveys across the Route. We also have generalist Health Safety and Environment (HSE) staff who are embedded within our delivery organisations to provide first contact support. In April 2025, the Region secured a new Ecology Framework with an approved list of Suppliers to provide additional resource where necessary.

The DEAM Biodiversity & Ecology team provides overarching strategic and technical support across the functions, including support to the planning and delivery of major infrastructure projects, including advice on requirements for survey, mitigation and monitoring. The DEAM Biodiversity & Ecology team has also prepared key guidance documents to assist the teams with planning their work, template documents, guidance notes, an Ecologist Starter Pack, created a shared depository for reports, and we are currently working on an Ecology Database for the Wales & Western Region to be integrated into the Asset Management Database (known as GeoRAIL).

Increasing our internal technical support regarding Ecology aligns with the NRAP objectives to:

- Improve our evidence, understanding and monitoring.
- Tackle key pressures on species and habitats.
- Safeguard species and habitats of principal importance and improve their management.

- Engage and support participation and understanding to embed biodiversity throughout decision making at all levels

Network Rail's progress to integrate Biodiversity and Ecology into our BAU

In early 2025 there was progress in Wales & Western on the 'Cultural Change for Valuing Nature' facilitated by the Environment Manager (Biodiversity) via workshops. Participants of these workshops included colleagues within the Region who specialise as advisers on Biodiversity and Ecology or were key stakeholders who manage the delivery of works. It is planned for this Cultural Change workstream to be led by the central Technical Authority at Network Rail and will progress via the Greener Railway Strategy.

The Wales Route has strong links via the Regional DEAM Biodiversity & Ecology team, with the Technical Authority who set the framework for Biodiversity and Environmental management across the entire Network (i.e. England, Scotland and Wales).

Planned project work is managed through the Project Acceleration in a Controlled Environment (PACE) process by our Capital Delivery (CD) organisation. As part of this process there are 'Environmental Management and Social Performance' deliverables, which cover Ecology and Biodiversity. Network Rail has a Standard that applies to PACE projects, which is the 'Environmental and Social Minimum

Requirements – Design and Construction' (REF: ENV_015) which was updated in December 2025. This ENV_015 standard cross-references with the ENV_122 Biodiversity Standard.

For reactive works, Ecologists provide support to planners, delivery managers and site operatives in the form of providing pre-construction surveys, site supervision and reporting. The Ecologists provide advice on whether protected species or sites (including local and statutory sites) might be impacted by the works. Where applicable, protected species licences and any permissions required are gained prior to works commencing. The Ecologists in Maintenance have also progressed with raising awareness of ecological constraints through for instance providing presentations at the Annual health and safety roadshow in 2023 on what the Ecologists do in Network Rail and why that matters. Our internal Yammer platform has also been used by the Ecologists to promote their work via selfie videos. Operatives have also been given opportunities to shadow the Ecologists in Maintenance to learn and upskill on hazel dormouse surveys during this reporting period. In South Wales, the Ecologists have had training days for the Operatives where demonstrations of how to follow precautionary methods of working, undertake nesting bird checks and also to provide basic level of understanding of ecological constraints.

Looking ahead the Route will continue to work towards a Cultural Change for Valuing Nature through for example increase awareness across the business and functions, understanding of ecological constraints and knowledge around biodiversity matters. This will

include cascading lessons learnt and Case studies of best practice and highlighting Ecological requirements through the SHE packs which are presented at periodic team briefs.

In June 2025, the Region implemented a new Ecology Framework designed to ensure that Network Rail has a robust, pre-qualified portfolio of Ecology Framework Suppliers with the expertise required to meet our updated operational and regulatory needs. The framework secures comprehensive geographical coverage across the Region, including more remote areas of Wales such as the Llŷn Peninsula and Pembrokeshire. The scope of services encompasses ecological advisory support and site-based supervision across the railway infrastructure and all relevant functions within Network Rail in the Region. This new framework significantly enhances the resources available to the Wales & Borders Route, complementing and strengthening our existing in-house ecological capability.

Network Rail's Technical Authority led on producing a range of strategic Policy and Guidance for the rail network (including Wales). This was with the collaboration through working groups with key regional representatives.

These have included:

- Network Rail (2020) Biodiversity Action Plan.
- Network Rail (2022) Sustainable Land Use Strategic Framework – A National Nature Network.
- Network Rail (2025) Greener Railway Strategy (2025-2050).

- ENV122 Biodiversity Standard and Habitat Management Plan requirements.
- Internal Network Rail 'Sustainable Land Use' e-Learning modules.

Regional teams also contribute to the production of the Annual State of Nature reports.

In November 2025, the WRCCA team completed the first phase of a climate adaptation pathways workstream to identify the short-, medium- and long-term climate risks to every mile of operational infrastructure across the Wales & Western Region. Workshops were held across the Region including seven covering Wales Route to engage with local teams and subject matter experts (including Ecologists) to identify the climate risks and inform the WRCCA assessments (see Photo 4). Through the work undertaken by the WRCCA team, they have also sought to find opportunities for nature-based solutions with technical support from ecologists when designing resilience schemes. Embedding biodiversity throughout our decision making is vital when working on resilience of both our infrastructure and the natural environment.

Looking ahead, the DEAM Biodiversity and Ecology team will lead on production of Habitat Management Plans (HMPs) for the locations within or adjacent to Designated Sites, in collaboration with key individuals across the Route and Region. HMPs for the other areas will be produced by the Route. These management plans will

be informed by Ecological baseline survey information, and an Ecologist will be involved in forming these plans with the Asset Management team. The new Ecology Database that is in development, will be the tool to record what management prescription is required per 1/8th of a mile, which is the recognised standard distance that Network Rail currently manage lineside inspections and other Assets.

Photo 4 Climate Adaptation Workshop in North Wales (Image credit: Network Rail).



²⁷ [Latest technology used to improve thousands of miles of lineside biodiversity | UK Centre for Ecology & Hydrology](#)

Creating a baseline

In addition to our ground-truthed Ecology surveys, Network Rail commissioned a baseline Biodiversity survey through UKCEH²⁷ which is updated on an annual basis. The map is held on our internal GIS system known as GeoRINM and aims to provide a tool for a high-level summary of habitat types. Our Annual State of Nature reports incorporate data from this mapping to report on BNG. As a region we look to ground truth and add to the granularity alongside the baseline surveys.

Providing a Green Corridor for Wildlife

The lineside vegetation of the railway lines across Wales can provide a network of green corridors which wildlife use for navigating, commuting, and habitat for foraging and shelter. These green corridors are in the form of hedgerows and lines of trees, or dense scrub. Network Rail manage these vegetation corridors firstly with safety in mind, whilst being sympathetic to the wildlife that use them. We work with Ecologists and specialist tree surveyors (arboriculturists) who have been trained in identifying the features of trees. The Ecologist identifies potential use by protected species, whilst the arboriculturist identifies those trees which are dead, decaying or dying (DDD). Whilst the safety of the line, our people and its users are paramount, Network Rail are committed to

compliance with wildlife legislation and to retaining a wildlife corridor wherever there is space to do so.

Sharing our Lineside with Wildlife

In September 2024, the Regional Technical Lead advisor for Biodiversity moved into the Regional Sustainable Growth team to become more integrated to working within Sustainability. This key role continues to provide an overarching technical advisory role in the Director of Engineering and Asset Management (DEAM) team. Recruitment of an Ecologist into this team was completed in May 2025. With Ecologists integrated at this level it encourages embedding Biodiversity into strategy and planning of work from the outset and Biodiversity as a key consideration in decision-making. The DEAM Ecologists attend monthly team briefs of the Regional Asset Management teams for Geotech, Lineside and Drainage which is considered the area with the highest level of risk and impact to Biodiversity and Ecology from maintenance and renewal activities.

The Delivery teams have increased their internal resource capacity, with two Senior Ecologist roles being created and 6 Ecologist roles now in Maintenance on the Wales Route. We also have a Senior Ecologist in Construction Services and Ecologists in the Regional DEAM Biodiversity Team. External Suppliers continue to provide technical resource and support to other Delivery teams including Construction Services and CD.

Photo 5 Tree Planting at Primrose Park Pilot Site March 2024 (Image credit: Angharad Owen, Network Rail)



Network Rail owns, maintains, and renews the various assets that make up the railway infrastructure, to provide train paths for train operating companies to run services. Where we undertake major engineering works our processes are written to consider the impact on protected species and potential mitigation for works. The Maintenance teams have stopped using eco-plugs, which allows natural coppicing to develop instead, and reduced the use of plastics on our lineside.

In July 2025, the Environment Manager (Biodiversity & Ecology) presented on net benefits for biodiversity to raise awareness of this concept and present on a guidance for how this can be implemented on the Railway landholdings in Wales. A Network Rail Wales Route guidance note on NBB is planned to be completed in early 2026.

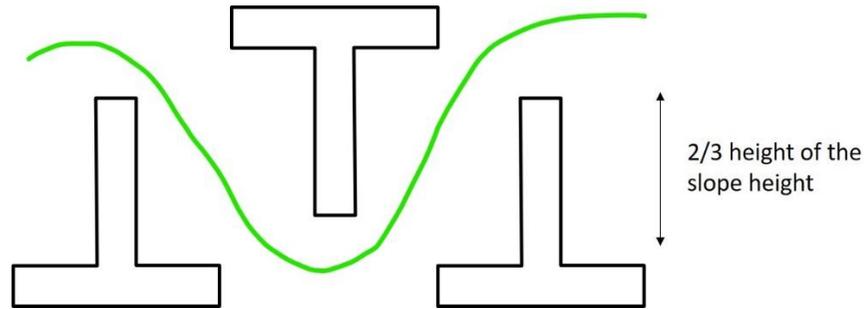
Use of innovation to avoid negative impacts on Ecology

On the Wales Route we have many internal colleagues who have a keen personal interest in ecology and conserving biodiversity. Network Rail continue to seek new methods to find efficiency with delivery of work and to have the least amount of impact on wildlife. For example, our Maintenance team who cover North Wales have trialled the use of a hedge cutter attachment and quad saw as an alternative to a flail. Whilst these different attachments are less noisy and aggressive than a flail they require more clear-up by a

ground team. Use of Aspen fuel has also been used by the Maintenance team, which has reduced toxic emissions and improved performance and service life of tools. In South Wales, our Maintenance team has trialled using drones to assist in ground level tree assessments to identify trees with bat roost potential. This innovative use of technology will be useful for areas of the track where access is very restricted.

There are also other activities that could potentially impact Biodiversity without forward planning. Our Ecologists work with our Engineers to find solutions where ecological constraints are identified. For example, the Network Rail Asset Management team have modified the original requirements for the locations of the vegetation removal strips within certain 5-chain length to T-shapes to provide a continuous strip of vegetation specifically with dormice in mind. Regular earthworks inspections are required to carry out visual monitoring of the embankments, soil cuttings, and rock cuttings and these inspections require strip clearance of vegetation to ground level. One of our Asset Managers in Geotech considered how we could have a reduced impact on the existing habitats from the original requirement for vertical and horizontal strips which may result in a fragmented habitat. The main species of concern were dormice. The new requirements first used in Control Period 6 are for perpendicular 'T' shaped strips as shown in Figure 4. Through alternating these T-shaped strips across the embankment, this allows earthworks inspections to be completed without resulting in habitat fragmentation.

Figure 4 T-shaped inspection strips (Image credit: Simon Tovey, Network Rail)



The use of technology for biodiversity and ecology assessments is a fast-emerging area in Ecology. Internal Ecologists at Network Rail have trialled and use night-vision thermal monocular to assist with vegetation assessments during pre-construction surveys where night-time working is the only access available at that location (due to health and safety constraints working on the Railway line). Using this equipment has also avoided destructive searches of vegetation such as through e.g. dense bramble. Recently, since 2024, our external Contractors have also used advanced long-range Forward Looking Infrared (FLIR)²⁸ thermal imaging equipment to survey bats in tunnels where access was restricted. Prior to our initial trail in Gloucestershire, that technology had rarely been used for the purpose of bat surveys. This more advanced technology has allowed the Ecologist to survey from a safe location 265m from the tunnel entrance, with positive results (see Photo 6). Standard thermal

imaging cameras can generally only record from an approximate distance of 60m from viewpoint. This advanced equipment was able to record a footprint of the flightpath used by bats (as illustrated in Figure 4), which aided an understanding of the bat's behaviour including flight paths and potential night roosts. That survey information was then used to inform mitigation for works to maintain the tunnel structure and avoid impact on the bats.

Photo 6 Use of FLIR Thermal Imaging equipment to survey a tunnel in Gloucestershire for Bats from long-range viewpoint. (Image credit: Morgan Sindall on behalf of Network Rail).



²⁸ [Home | Flir](#)

Pollinators

Network Rail continue to seek opportunities to improve our lineside and habitats on our land for pollinators. Representatives from the Wales & Western team regularly attend the Action for Pollinators Taskforce organised by the Welsh Government, and the Wales & Borders Route will continue to seek to find opportunities to enhance habitats for pollinators.

Dealing with the threat of Ash Dieback

The spread of Ash Dieback across the Welsh landscape has progressed at an unanticipated rate, with a significant amount of Ash being recorded on our lineside through our specialist 'dead, decaying and dying' (DDD) tree surveys. Wherever possible we aim to retain diseased trees through coppicing and pollarding rather than only removal. The Tree Council prepared an Ash Dieback toolkit for Network Rail in June 2020, which has been used to inform the Wales & Borders Vegetation Strategy for CP7.

Engagement with adjacent landowners and key stakeholders

It is recognised that the land owned by Network Rail can provide a valuable wildlife corridor across the wider landscape. The DEAM

Biodiversity team are actively seeking opportunities to collaborate on nature-based solutions and projects on a landscape scale with external stakeholders, including finding opportunities for habitat compensation off-site. For example, a representative of Network Rail from the Biodiversity team was invited to the 'Changing Tides – A Community Guide to a Resilient Coast' Co-design Workshops organised by the RSPB. These co-design workshops have involved both the local community and key stakeholders in the design of a Coastal Adaptation Handbook for the Dyfi Coastline.

As previously stated, Network Rail already have in place excellent working relationships with key stakeholders and are already involved with strategic planning in Wales.

On the Wales Route we have staff with specific roles to have an interface with the Public, including dealing with public complaints, lineside neighbour issues and communications. Our Customer Support team also work with local community groups and issue community licences for groups to e.g. for local groups to manage wildlife friendly areas at Stations, or for gardening on Network Rail land.

We aim to become more involved with working with key stakeholders and local landowners, either with a common interest in Biodiversity, or where they their own Section 6 Duty that they need to comply with. We aim to target working with the following:



- Members of the Public
- The Wildlife Trusts in Wales
- RSPB
- NRW
- Local Nature Partnerships
- The Welsh Government
- Eryri National Park Authority
- Transport for Wales

The Biodiversity Implementation Programme (BIP) continued until the end of the Control Period 6 (April 2019 – March 2024). This programme of works included delivery of Pilot Sites to demonstrate best practice methods for managing ecological constraints and examples of habitat management that allows enhancement of Biodiversity. For many of the Pilot Site projects delivered through the BIP, the DEAM Ecology team engaged with external stakeholders. For the Rhinog Park Pilot Site at Dyffryn Ardudwy, Network Rail was approached by Eryri National Park Authority with a Rainforest Project Manager requesting collaborative working to realise an opportunity to connect a bat roost with nearby woodland that would provide habitat for bats. The proposal was to plant a hedgerow which would provide a direct habitat corridor for bats to navigate across the landscape as the existing habitat was mainly open grassland with dry stone walls and residential. Initial hedgerow planting was undertaken in April 2021, unfortunately the UK experienced a severe drought that year, so the hedgerow was watered and left to establish naturally. In March 2024, Network Rail

returned to site to remove any tree guards that had been outgrown and then replant where the trees that had not survived (see Photo 7).

Photo 7 Tree planting at Rhinog Park in March 2024 (Image credit: Angharad Owen, Network Rail).



Service Level Agreement with Aderyn

Aderyn is the Biodiversity Information and Reporting Database of Local Environmental Records Centres Wales, collating all the data held by the four individual records centres into one place. This provides a fantastic wealth of information and intuitive database of biodiversity information. Network Rail entered into a Service Level

Agreement (SLA) with the Wales Biodiversity Records Centres through Aderyn at the beginning of 2019, and this has been renewed on an annual basis.

The Wales Route have utilised this SLA which allows a limited number of licences providing direct access to the biodiversity information to our selected individuals who frequently conduct database searches to support out work. By supporting the Local Records Centres in Wales through this SLA, this also supports wider efforts towards Biodiversity and nature conservation across Wales.

Wellbeing and improving connection between people and nature

A common theme in the new legislative framework in Wales, and in the Marine Character Profile (published by NRW)²⁹, is that of the connection between spending time in nature and that of health and wellbeing. The railway provides transportation for the public and our purpose is to connect people with where they need to be. Connecting cities and rural areas, inland to coastal sites, the railway is in an important route for the public to use to connect people with nature. The beautiful scenery of Wales provides a backdrop for commuters and holiday makers, with some of the most breath-taking views in Wales only being seen from the train.

Photo 8 Barmouth Bridge (Image credit: Network Rail)



²⁹ [Natural Resources Wales / Marine Character Areas](#)

Conclusions and Summary

Network Rail are fully committed to their sustainability obligations and have several existing workstreams which enable us to comply and meet the requirements of Welsh legislation regarding Section 6 Biodiversity Duty. These obligations include the Sustainability Strategy, Sustainable Land Use Strategic Framework³⁰ and 'Management of Biodiversity' Standard ENV_122. The business recognises that we are at the beginning of our journey towards valuing nature, and we have areas for improvement including in relation to embedding biodiversity into our decision-making and planning of infrastructure maintenance and renewals work.

In CP7 we will be focusing on completing Habitat and Vegetation Management Plans across the Wales & Western Region, prioritising these for areas where there are designated sites or recent records for protected species gathered from our baseline ecology surveys. These plans will incorporate requirements for biodiversity compensation and enhancement, including signposting opportunities to work with

³⁰ [A National Nature Network Sustainable Land Use Strategic Framework \(networkrail.co.uk\)](https://www.networkrail.co.uk)

external stakeholders through for instance the Nature Networks and Local Nature Partnerships. We will progress with the baseline surveys across the Route to inform our ongoing maintenance and major infrastructure projects, whilst also looking for opportunities to enhance biodiversity on our land (where feasible).

Looking ahead, it is our intention for our internal Ecologists to be valued by the business and continue to support with driving forward a cultural change in the way in which we manage our lineside habitats and ecological constraints whilst undertaking our work internally, and via our competent suppliers.

Highlights

Network Rail continue to progress with improving the way in which we are effectively managing Biodiversity and embedding biodiversity in decision making at all levels. We are achieving this through shared learning, producing case studies of best practice, increasing the number of internal Ecologists who can provide direct advice to colleagues, and therefore improving safeguarding of species and habitats.

The Wales Route is also increasing our evidence, understanding and monitoring through ground-truthed ecology surveys which then inform how we can maintain and enhance biodiversity when

undertaking our work. UKCEH have also developed a habitat mapping tool on behalf of Network Rail which is a tool used to report on biodiversity and nature and therefore assist with identifying opportunities for connecting habitats across the landscape.

Network Rail funded pilot site projects across the Region in the previous Control Period 6, which included sites in Wales, which have aided and improved the Wales Route's practical delivery of projects to benefit biodiversity. A final report including Case Studies is complete, and this can help inform future planning of work across Network Rail.

Improved communication of requirements about ecology and biodiversity has been a key goal for the Ecologists on the Wales Route over the past Control Period 6, but we still have progress to make to ensure that messaging is at the right level for the target audience. Through raising awareness with our colleagues internally at Network Rail, an outcome is that colleagues have been requesting development of a standalone Ecology Database. The requirement is for the database to present information at different levels depending on the requirements of the user and allow sharing of knowledge across our large organisation with many different teams and functions. This new database and system are currently at the inception stage since the end of 2025 and are being developed internally to be incorporated into our Regional Asset Management Database (known as GeoRAIL). The capabilities include sharing data on species records, licences and other documentation. There are also GIS layers illustrating habitat and species survey data digitally,

alongside data capture Apps. This Ecology Database will improve our knowledge sharing across the business and functions and standardise our data capture.

Key outcomes

The result of Network Rail's progress to embed biodiversity in our decision-making is that colleagues across the business are identifying more opportunities for us to improve our ways of working regarding managing biodiversity and ecological constraints. Across the business Network Rail staff involved with all aspects of work from planning, strategy and delivery have gained increased awareness that both habitats and species need protecting and that we can find ways of working that will allow us to complete our work without having a detrimental impact on the wildlife that we share the lineside with. There is also a better understanding around why and when we need permissions in place, and improved engagement with external stakeholders when planning work. Our delivery teams also look for opportunities to enhance our estate for biodiversity such as on unused land.

It is often a challenge to balance managing and maintaining a safe working railway with planning for identification and management of ecological constraints. We will continue to progress with increasing knowledge and knowledge transfer.

Issues

Network Rail own a linear corridor of habitat that connects the landscape. However, this corridor is not a uniform width, and in some instances, there is no viable land to deliver biodiversity benefits. Therefore, we need to work with adjacent landowners and stakeholders to deliver net-benefits for biodiversity.

In 2027, it is currently planned for Network Rail to integrate and form Great British Railways (GBR). The management of the railway assets will likely transfer under GBR; however, it is envisaged that many of the current Network Rail targets, policies and plans will carry over into the new organisation.

Network Rail's DEAM Environment Manager (Biodiversity & Ecology) is actively seeking opportunities to collaborate with external stakeholders through the Nature Partnerships and Working Groups which align with the Area Statements. However, Network Rail cannot stall their work to wait for future opportunities when we need to maintain a safe and reliable Railway line.

Action Plan for 2023 onwards, set against the NRAP Objectives

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
1	Mainstreaming, Governance and Reporting our Progress.	Specialist technical expertise from Ecologists on Route.	The Wales Route Ecologist to continue communication with the BTP Wildlife Crime Officer for Wales.	With changes in the organisation, the communication with the BTP Wildlife Crime Officer for Wales is on a case-by-case basis.	Yes.
2	Increasing knowledge and knowledge transfer.	Specialist technical expertise from Ecologists on Route.	The Wales Route to recruit additional internal Ecology support by end of 2020.	The internal capacity of Ecologists on the Wales Route has increased to a total of 8 Ecologists in the Wales Maintenance teams, including two new Senior Ecologist. In addition, we have a Senior Ecologist role in the Regional Construction Services team who supports with advising on delivery of works.	No, these roles are permanent.
3	Mainstreaming, Governance and Reporting our Progress.	Network Rail's Biodiversity Action Plan	Network Rail Technical Authority to publish the Network Rail Biodiversity Action Plan in January 2020	BAP published in December 2020. Link to document: Our commitment to helping biodiversity - Network Rail	No, this BAP is in place until 2035.

³¹ [The Nature Recovery Action Plan for Wales 2020 to 2021](#)

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
4	Mainstreaming, Governance and Reporting our Progress.	Network Rail's Biodiversity Action Plan	Network Rail to produce the template for the 'Route Level Biodiversity Action Plans' July 2020. Wales Route to publish their BAP in this format by end of August 2020.	This objective was replaced by the requirement to publish Annual State of Nature reports: Biodiversity on Britain's railway - Network Rail	Objective revised: Annual State of Nature reports to be published by Network Rail.
5	Realising new Investment and funding.	Network Rail's Biodiversity Action Plan	Network Rail to publish overarching Key Performance Indicators by end of 2020.	In 2023, the Office of Road and Rail (ORR) published Targets for Network Rail to achieve over 5 years in CP7 funding period. This included Targets for Biodiversity and Habitat Management Plans: The environment, sustainable development and rail Office of Rail and Road	Objective revised: Wales & Borders to meet the Targets set by ORR for CP7.
6	Maintaining and Enhancing Resilient Ecological Networks.	Providing a Green Corridor for Wildlife	Retention of a corridor of vegetation wherever it is practical to do so.	This is an ongoing objective continues to be considered wherever the Delivery teams identify it is practical and safe to achieve retention of vegetation along the boundary such as a hedgerow.	Yes. The Route Engineer for Wales Route is committed to investigating opportunities to install hedgerows as boundary measures where practical to do so.
7	Mainstreaming, Governance and	Providing a Green Corridor for Wildlife	Incorporate biodiversity as a priority in our Route Specific Habitat	The HMP standard (ref: NR/L2/ENV/122/02) was published 6th March 2021. The	Objective revised: Wales Route to progress with writing HMPs for

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
	Reporting our Progress.		Management Plans. Wales Route to produce their plan by July 2020.	Wales & Western region have planned for the delivery of habitat management plans to be via an Ecology Database which is currently in development.	designated sites, also overarching HMPs for strategic areas or areas where major works are planned.
8	Upskilling and capacity for delivery.	Sharing our lineside with Wildlife	Wales Route teams to continue to work with Ecologists to protect the wildlife on the lineside.	Internally on the Wales Route we are continuing to progress with the cultural change around Biodiversity and Ecology. Since the start of CP7, the Delivery teams have had more autonomy over providing Ecological advice to their respective teams. The overarching role of Environment Manager (Biodiversity & Ecology) has led on providing overarching technical advice on Biodiversity and Ecology for the Region.	Objective revised: Progress with a Cultural Change for Valuing Nature. Wales Route teams to work collaboratively with the Ecologists to protect and enhance wildlife on the lineside.
9	Maintaining and Enhancing Resilient Ecological Networks.	Sharing our lineside with Wildlife	Network Rail will look at options to plant wildflower meadows specifically to attract pollinators where it will not be detrimental to other Priority Habitats, or Priority and protected species.	Due to a focus on managing the risk associated with Ash Dieback on our lineside, there has been more of a reactive approach to lineside management.	Objective revised: The Wales Route will look for opportunities to improve habitats for pollinators where it will not be detrimental to other

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
					Priority Habitats, or Priority and protected species.
10	Increasing Knowledge and Knowledge Transfer.	Use of innovation to avoid negative impacts on Ecology	Improve the knowledge base internally at Network Rail to allow staff to recognise opportunities to enhance biodiversity when programming or project managing.	The internal Ecology Resource from across the Route and Region has actively worked towards enhancing the knowledge base of Network Rail staff regarding Biodiversity and Ecology. This has included creating reference material such as Toolbox Talks, engaging directly through attending meetings where work is planned so as to integrate Ecology into the delivery planning, and also through workshops and presentations. An example of this was the Shrewsbury DU employing Ian White (PTES) to present on Dormice to the Maintenance staff.	Yes.
11	Increasing Knowledge and Knowledge Transfer.	Use of innovation to avoid negative impacts on Ecology	Capital Delivery to continue to look at finding innovative solutions to lower the impact of our engineering works on the environment.	This is an ongoing objective, with assistance from external Contractors.	Objective revised: Asset Managers and Delivery teams to continue to look at identify innovative

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
					solutions to lower the impact of engineering works on the environment.
12	Increasing Knowledge and Knowledge Transfer.	Use of innovation to avoid negative impacts on Ecology	Ecologists to work with Asset Management team to include ecological requirements.	There are two Ecologists (including the Biodiversity & Ecology Manager) who form the Biodiversity Team in DEAM and provide advice to Asset Managers.	Objective revised: Asset Managers and Delivery teams to continue to look at identifying innovative solutions to lower the negative impact that engineering works can have on the environment.
13	Maintaining and Enhancing Resilient Ecological Networks.	Dealing with the threat of Ash Dieback	The Wales Route Ash Dieback Plan will be published in early 2020.	The Tree Council prepared an Ash Dieback toolkit for Network Rail in June 2020. In addition, the Wales Route also prepared an internal document 'Network Rail Wales Route Ash Dieback Action Plan' in September 2022.	No.
14	Mainstreaming, Governance and Reporting our Progress.	Response to adverse weather events	The Wales Route to continue with the MoU with NRW.	The MoU between NRW and Network Rail was completed in 2023. Link to press release: Network Rail and Natural Resource Wales to continue their successful partnership Rail News	Yes.

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
15	Maintaining and Enhancing Resilient Ecological Networks.	The Shoreline Management Plan	The date for publication of the Strategic Network Study is 2020.	Understanding the impact of the Shoreline Management Plans on the railway across Wales & Borders was published in March 2020.	Objective revised: Planning team in Wales Route will continue to engage with future Shoreline Management Plans wherever possible.
16	Maintaining and Enhancing Resilient Ecological Networks.	Engagement with adjacent landowners and key stakeholders.	Form and maintain working relationships with target stakeholders.	The Environment Manager (Biodiversity & Ecology) in the Asset Management team has continued to maintain relationships with key stakeholders including Welsh Government, NRW, Eryri National Park Authority and the Royal Society for the Protection of Birds (RSPB). Network Rail will continue to seek further opportunities to collaborate with external stakeholders through the Local Nature Partnerships and seeking to engage with relevant Biodiversity working groups.	Yes.

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
17	Maintaining and Enhancing Resilient Ecological Networks.	Targeting the conservation of key species	Network Rail will continue to support the Dyfi Osprey Project.	Network Rail have continued to support the Dyfi Osprey project with annual access across the railway line to the nest and providing electricity to the CCTV which protects the nest from egg collectors.	Yes.
18	Maintaining and Enhancing Resilient Ecological Networks.	Targeting the conservation of key species	Wales Route Ecologist to continue discussions with the Dyfi Beaver Project team around the feasibility of the scheme.	Ongoing discussions over the past three years with the Welsh Beaver Project, and Welsh Government who have provided funding to this project. There are ongoing discussions around funding from government to cover the costs around resource and mitigation for potential damage caused by beavers on our lineside if they are to be released into the wild. The DEAM Environment Manager (Biodiversity & Ecology) regularly attends meetings of the Welsh Beaver Project Steering Group.	Objective revised: Targeting the conservation of key species. Environment Manager (Biodiversity) to continue to engage with the Welsh Beaver Project and attend the Welsh Beaver Forum meetings.

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
19	Maintaining and Enhancing Resilient Ecological Networks.	Invasive non-native species management	Continue our work to tackle non-native invasive species through targeted treatment.	The Delivery teams are progressing with their programme of work to target Japanese knotweed at targeted locations.	Yes.
20	Mainstreaming, Governance and Reporting our Progress.	Organisational mitigation Licences for EPS.	Work towards gaining our first organisational licence by the 31st of December 2020.	The Wales & Borders Route are in conversations with NRW around gaining an organisational mitigation licence for working in areas where there are Dormice.	Objective revised: Organisational Mitigation Licences for EPS. Wales Route to continue discussions with NRW to obtain an Organisational Licence for Dormice to cover Maintenance lead activities.
21	Mainstreaming, Governance and Reporting our Progress.	Baseline Ecology surveys	Preliminary ecological appraisals to be completed for over 450 miles by end of 2024.	The initial baseline ecology surveys were completed in CP6 for the main operational land. Due to the spread of Ash Dieback since setting these Actions, the priority for funding has been to undertake the initial DDD tree survey in order to identify any Health & Safety risk. Network Rail do have a new habitat mapping tool produced by	No. This objective overlaps with the State of Nature reporting which includes reporting against changes to habitats across the Network. Most of the operational land now has a baseline ecology survey.

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
				UKCEH that uses aerial imagery to identify habitats : Latest technology to improve thousands of miles of biodiversity – Network Rail but this has not been ground-truthed and needs to be refined.	
22	Mainstreaming, Governance and Reporting our Progress.	Baseline Ecology surveys	All ELRs across Wales will have baseline ecology data completed by the end of Control Period 6 (March 2024).	Ground-truthed baseline Ecology Surveys were completed in CP6 for the operational land (i.e. that still in service). These surveys were completed through a combination of using external Suppliers and internal Ecology resource.	Objective revised: Baseline Ecology Surveys. Where renewals or changes to the habitat are required to facilitate work and the safe running of the railway, then a baseline survey will be required if not already available.
23	Increasing Knowledge and Knowledge Transfer.	Service Level Agreement with Aderyn.	The current SLA is due to expire in March 2020. Network Rail will review the SLA periodically.	Network Rail has continued with an Annual SLA to gain access to Aderyn. The Environment Manager (Biodiversity & Ecology), DEAM, continues to be the main point of contact for Aderyn and the SLA has continued to be renewed due to the benefits (including costs and time) which	Objective revised: Service Level Agreement with Aderyn. Network Rail will review the SLA with Aderyn periodically.

Next steps to fulfil our biodiversity commitments	Relevant NRAP ³¹ themes of action	Objective from 2023 onwards	Summary of the objectives set in 2019 that will be carried over as Actions	Progress between Jan 2023 and Dec 2025	Will this Action be carried over into the next reporting period from Jan 2026 to Dec 2028?
				this agreement provides to Network Rail. It is a unique opportunity in Wales to have one point of contact to extract recent records from across Wales.	

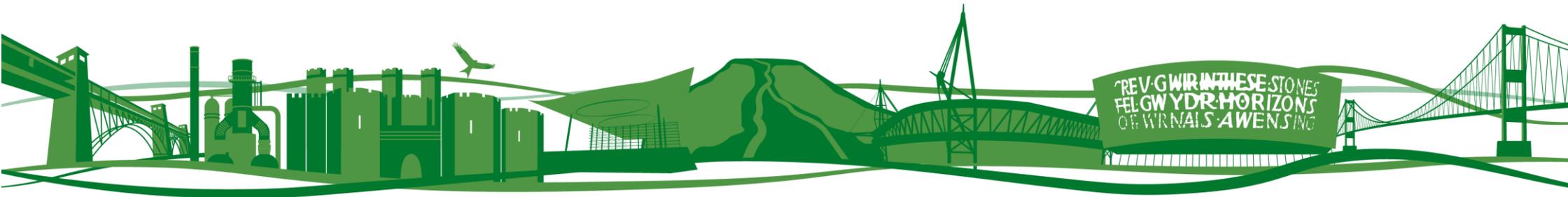


List of Acronyms

AI	Artificial Intelligence
BAP	Biodiversity Action Plan
BAU	Business as Usual
BTP	British Transport Police
CBD	Convention on Biological Diversity
CD	Capital Delivery (project organisation in Network Rail)
CP6	Control Period 6 (2019 – 2024)
CP7	Control Period 7 (2025 – 2029)
DEAM	Director of Engineering and Asset Management
DfT	Department for Transport
ELR	Engineering Line Reference
EPS	European Protected Species
GBR	Great British Railways
PACE	Project Acceleration in a Controlled Environment
PTES	People's Trust for Endangered Species
HMP	Habitat Management Plan
HSE	Health Safety and Environment
NERC	Natural Environment and Rural Communities (Act)
NRAP	Natural Resources Action Plan
NRW	Natural Resources Wales
SHE	Safety Health and Environment
SLA	Service Level Agreement
SMNR	Sustainable Management of Natural Resources
SMP	Shoreline Management Plan
SoNaRR	State of Natural Resources Report
TA	Technical Authority (national standards framework owner within Network Rail)
UKCEH	United Kingdom Centre for Ecology and Hydrology
WG	Welsh Government
WRCCA	Weather Resilience and Climate Change Adaptation



OFFICIAL



Wales and
Borders