

Section 6 Duty Report 2022

Transport for Wales



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TRANSPORT FOR WALES

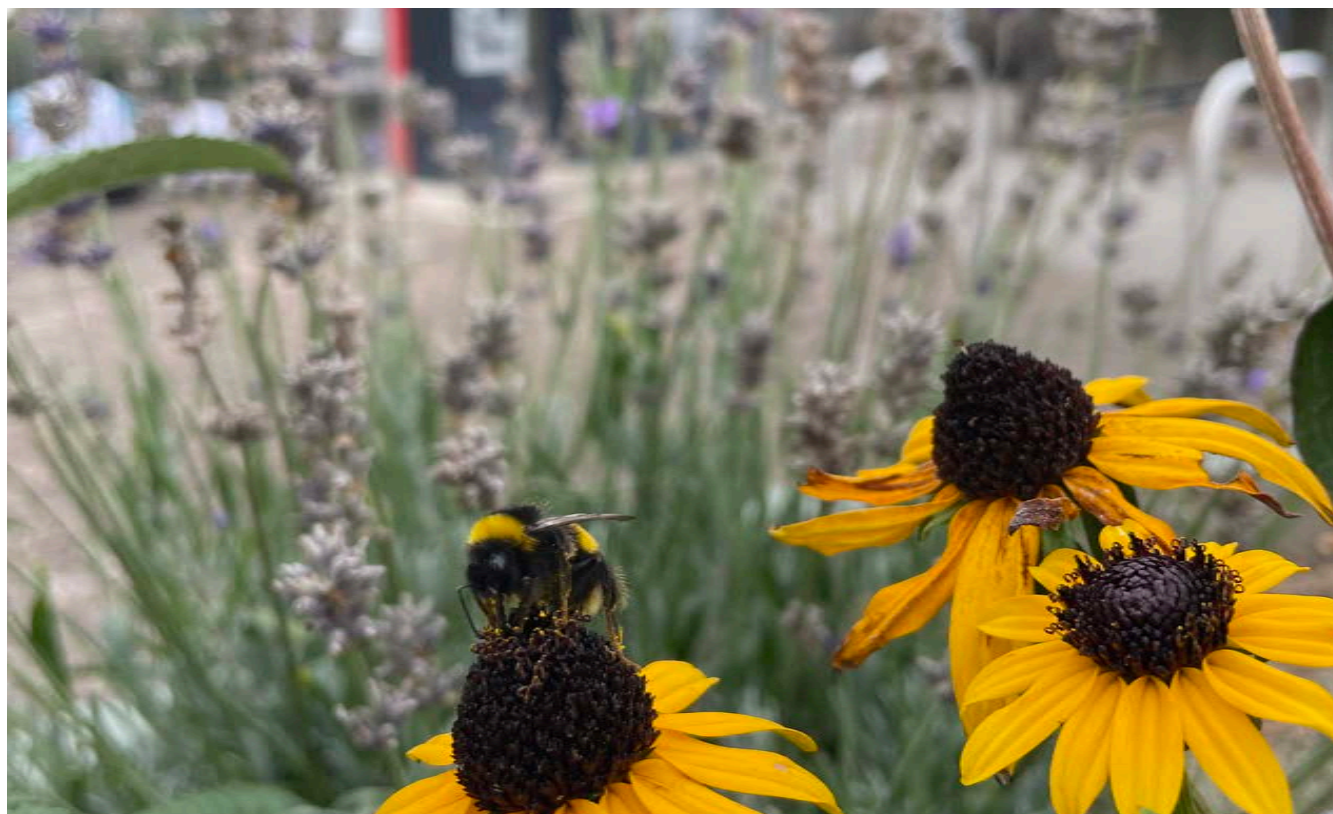
Introduction

Overview

Transport for Wales (TfW) is a not-for-profit, customer-focused company, dedicated to driving the Welsh Government's aim of creating a transformed transport network.

We're committed to delivering an accessible, sustainable, and efficient multi-modal transport network with sustainability embedded throughout.

Our aim is to provide an efficient, high-quality service whilst both reducing the impacts and maximising the biodiversity opportunities we have on our surrounding environment.



Craidd Alliance

Transport for Wales, in partnership with Balfour Beatty, Siemens Mobility, Alun Griffiths Contractors Ltd and Amey Infrastructure Wales formed the The Craidd Alliance.

The Craidd Alliance will collectively deliver the Core Valley Lines Transformation Project; forming a major part of the South Wales Metro project to improve and renew existing assets across the region.

This is a £738m economic development project - including the 25kV electrification of the route - to enable more frequent services, more capacity, better customer experience and new greener, the most comprehensive and complex infrastructure rail upgrade in Wales for a generation. This will significantly improve connectivity throughout South Wales and provide access to jobs, leisure and other opportunities

Biodiversity Action Plan

The [TfW Biodiversity Action Plan \(2021-2026\)](#) set outs our key objectives and targets in relation to biodiversity within the organisation.

These include:

- » Net Benefit for Biodiversity
- » Communication and Engagement
- » Mainstreaming Best Practice
- » Collaboration
- » Biodiversity Initiatives

The Biodiversity Action Plan (BAP) has been designed to be a living document; reviewed annually and updated as and when required (e.g. changes in legislation). The BAP has been approved and incorporated at an organisational and corporate level and aims to demonstrate TfWs commitment and obligations under the Section 6 Duty of the Environment (Wales) Act 2016.

Transport for Wales Biodiversity Action Plan 2021-2026



Key legislation, policy
and drivers



Environment (Wales) Act 2016 – Section 6 duty

As a public body, under Section 6 of the Environment (Wales) Act 2016 we have a duty to maintain and enhance biodiversity, promote the resilience of ecosystems and embed the consideration of these into our day-to-day activities, policies, plans, programmes and projects. At TfW, our reach for this is both on a local and landscape scale.

This report fulfils the requirement to report our actions under the Section 6 duty (hereafter S6 duty) by way of preparing and publishing a plan setting out what we propose to do to and providing key examples of how we are compliant with the S6 duty.

Under the Welsh Minister's Duty, TfW is required to report on our progress in line with S6 Duty of the Environment (Wales) Act 2016.

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The Section 6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in doing so promote the resilience of ecosystems”

Priority species and habitats

The Environment Wales Act 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 due regard to:

- » Priority Species and Habitats listed under Section 7,
- » Relevant Area Statements in areas where the public authority exercises its functions, and;
- » NRW 2016 State of Natural Resources report (SoNaRR) published in 2020.



The Well-being of Future Generations (Wales) Act 2015

The Well-being of Future Generations (Wales) Act 2015 requires public bodies in Wales to think about the long-term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change.

TfW has a duty under the Act to think about the long-term impact of operational decisions under the seven well-being goals, including community engagement, and preventative measures for future generations such as climate change. This includes interlinking our work with the five ways of working under the Act: Collaboration, Integration, Involvement, Long term, and Prevention.

In terms of biodiversity, the Resilient Wales goal is of significant relevance to this report.

Essentially, this means that we must actively take steps to protect and enhance biodiversity and nurture resilient ecosystems; so that they may continue to thrive, increase and persist for future generations. As ecosystems are complex and can sometimes take many thousands of years to re-stabilise, this is critical.

Rail transport plays a key role for biodiversity, not only in the landscape scale of influence rail has through land asset use and management (often providing undisturbed wildlife corridors across extensive areas) but also providing integrated and sustainable transport for the public and future generations across Wales.

Rail transport also facilitates access to green spaces and for leisure; positively contributing to well-being, communities and better health for many people.



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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 //

Policies, reports and statements

The Environment (Wales) Act 2016 draws upon three key drivers (produced by NRW) to focus on essential objectives to deliver a viable change to achieve Sustainable Management of Natural Resources (SMNR) in Wales:

1. Area Statements

Seven Area Statements have been created spanning Wales, each outlines the key challenges facing that particular locality, what we can all do to meet those challenges, and how we can better manage our natural resources for the benefit of future generations.

Viewed together, the seven Area Statements can be seen as a collaborative response to what is known as the Natural Resources Policy, published by the Welsh Government in 2017, which sets out the key challenges and opportunities for the sustainable management of Wales' natural resources into the future.

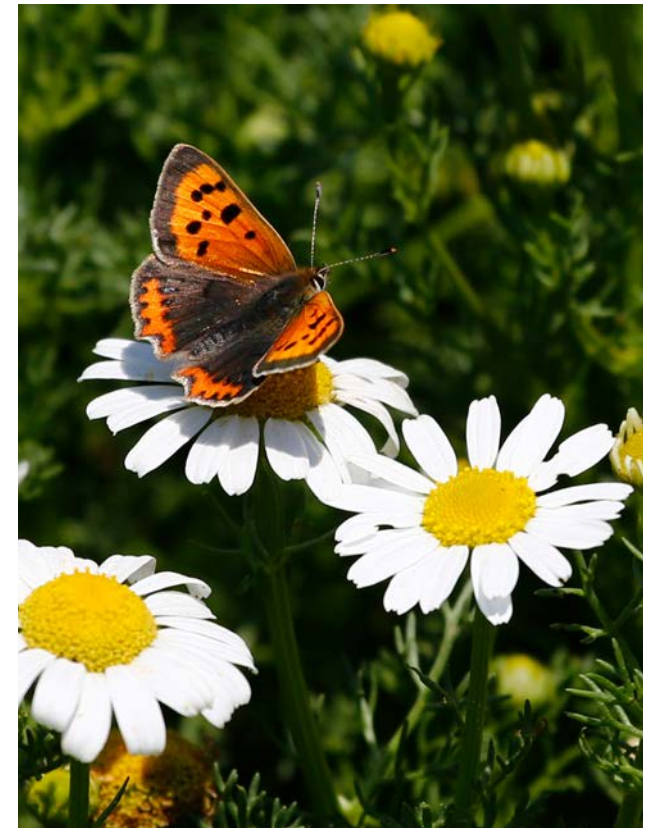
Of particular relevance to TfW in relation to S6 duty are the South-East Wales Area Statement and South-Central Area Statement; where we own the Core Valley Lines (outside of this; land is managed by Network Rail) and as such we have full jurisdiction over important non-operational aspects such as land management and use in this area.

2. State of Natural Resources Report (SoNaRR)

The second State of Natural Resources Report (SoNaRR2020) aims to protect the environment for future generations and re-evaluate how we use our natural assets to address the dual threats from the climate and nature emergencies.

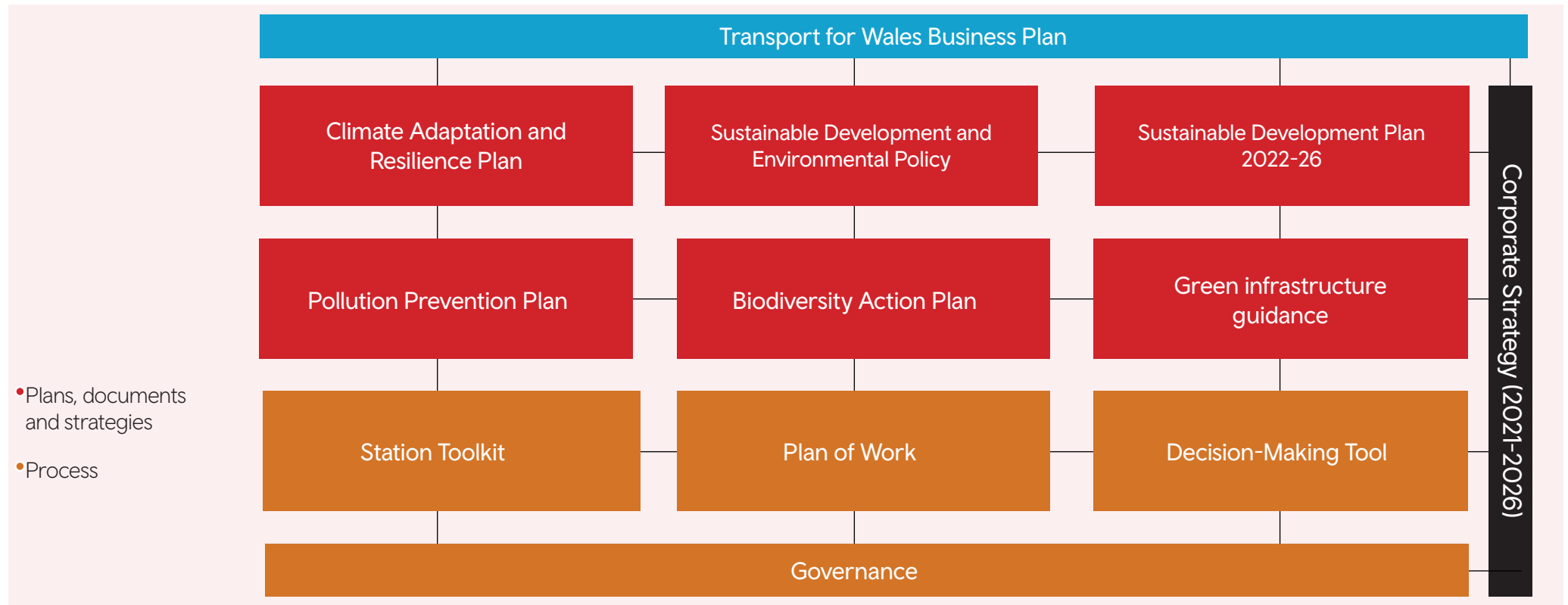
3. Natural Resources Policy

The key focus of the NRP is to improve the way we manage our natural resources. The policy sets out how Welsh Governments policies can deliver both economic and environmental objectives and drive delivery across the WFG Act Well-being Goals.



Supporting internal documents

Our Biodiversity Action Plan is supported by other strategies, plans and policies across the organisation. More detail is provided for each in the following section.



Our supporting plans and processes

Climate Adaptation and Resilience Plan

Our Climate Adaptation and Resilience Plan has been developed to provide the required strategic direction and governance for increasing the organisation's response level to climate risks. The Plan aims to ensure that TfW fully identifies, captures, and mitigates its climate risks across our networks and operations, by committing to embed climate resilience into everything we do.

Through recognition of the intrinsic links between resilience and the nature crisis, our strategic climate resilience action plan is centred around the co-benefits that can be realised if adaptation is delivered effectively. Restoration of our natural spaces and biodiversity is critical to society's adaptation to climate change; symbiotically reversing nature losses whilst also responding to a changing climate.

As such, Nature-based Solutions (NbS) will be considered as a priority over hard engineering options, to maximise opportunities or working with nature to reduce TfW's exposure to climate risks.

NbS schemes will be evaluated in terms of their suitability on our assets and delivered collaboratively (with core stakeholders such as Natural Resources Wales) to ensure effective implementation. If hard engineering solutions are evaluated as the most appropriate, we will endeavour to ensure that such projects are executed sensitively to minimise any impacts on surrounding habitats and/or species.

Our supporting plans and processes

Sustainable Development Plan

Our Sustainable Development Plan outlines our organisational objectives for the next five years through a sustainable development lens. It is aligned with the Wales Transport Strategy and the National Transport Delivery Plan and demonstrates how we are taking a sustainable approach across TfW and considering our impacts to our communities, local economies and local environments in Wales, including biodiversity.

The Biodiversity Action Plan is one of several organisational plans on which the Sustainable Development Plan relies on to ensure we are thorough in our approach and delivering our commitments.

An annual update will be published outlining our progress against the Sustainable Development Plan.

Corporate Strategy

Our Corporate Strategy (2021-2026) commits to ensure our culture is one where sustainability and future generations are at the heart of decision making

Sustainable Development and Environment Policy

In-line with the Green Dragon standard (equivalent to ISO14001), our Environment Management System references and integrates biodiversity plans and standards; aligning environmental compliance requirements. We are required to maintain a legal register and evaluate compliance against relevant legislation as part of this.

Environmental

Our Sustainable Development and Environmental Policy, Environment Management System and Pollution Prevention Plan collectively contribute to the protection and enhancement of natural capital and biodiversity by:

- » Setting robust standards for the sustainable development and asset management;
- » Improving land asset use and quality;
- » Minimises environmental impacts;
- » Protects against pollution; and
- » Engages with staff to raise awareness and understanding.

Biodiversity risk, opportunities and actions are included as standard as part of high-level internal communications. To demonstrate compliance, an annual internal audit cycle is undertaken where all relevant departments are audited for compliance against the above.

Our supporting plans and processes

Environment Management System

In-line with the Green Dragon standard (equivalent to ISO14001), our Environment Management System references and integrates biodiversity plans and standards; aligning environmental compliance requirements.

We are required to maintain a legal register and evaluate compliance against relevant legislation as part of this

Pollution Prevention Plans

Pollution Prevention Plans are in place for all manned stations, and work is underway to include these for unmanned stations. This will help mitigate pollution incidences and reduce the occurrence of dispersed pollution which may otherwise impact on local wildlife and habitats

Green Infrastructure Guidance

We have produced a green infrastructure toolkit which sets out a range of techniques and applications for our project teams, which seek to provide a variety of benefits to:

- » Improve air quality
- » Manage surface water runoff
- » Reduce urban heat island effects
- » Improve biodiversity
- » Promote economic development
- » Enhance environmental and well-being benefits

The toolkit is aimed at anyone who is considering enhancing green spaces at or around stations and can be used by TfW employees including project managers, developers, planners, engineers and architects, Station Adopters and our contractors.

Measures include green roofs and walls, multifunctional wildlife planting, habitat boxes and SuDS. Green infrastructure is encouraged to be incorporated at the early design stages in to maximise benefits.



Our supporting plans and processes

Plan of Work

Sustainability and biodiversity requirements have been updated in a revised edition of our internal Plan of Work to ensure specialist advice and support in relation to biodiversity and sustainability is sought at project inception/design stages of projects and provide project managers with relevant guidance to ensure opportunities are maximised and impacts avoided

Governance

Biodiversity Action Plan

The TfW BAP has been approved by our Safety, Sustainability and Risk Director and is subject to review by the Transport for Wales Health, Safety & Well-being Committee and Board.

Our biodiversity and ecology commitments – including those in the BAP, under S6 and in this report – are subject to a Monthly Risk Management Review and quarterly Executive Safety Review.

Highlights, key outcomes and issues

A summary of our key actions, initiatives and outcomes are summarised in this section, using our BAP objectives as a reference framework.



Net Benefit for Biodiversity

We aim to deliver an overall improvement in biodiversity with proactive consideration of biodiversity and wider ecosystem benefits within a place-making context early in decisions and designs.

We're creating an internal ecological assets database which will allow our staff to better understand where ecological opportunities and constraints are on our network. This includes recently commissioning Lidar and aerial drone surveys to gather more accurate information on habitats and better identify and monitor issues such as Ash Dieback. This will inform any subsequent short- and long-term management plans and budgets.

This wider ecosystem approach will help us to support, enhance and protect healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to changes such as from climate change.

As part of this objective we're also producing our Biodiversity Strategy for the Core Valley Lines.

The strategy will reference the Chartered Institute of Ecology and Environmental management (CIEEM) and Welsh Governments recent direction in terms of biodiversity accounting in Wales - including confirmation a metric will not be used. This strategy will instead incorporate how we'll deliver a Net Benefit for Biodiversity in our operations.

The strategy will also allow us to better understand our biodiversity gains, retention and losses on our land assets in addition to identifying more accurate mitigation where required and enable us to provide evidence and accountability of this more effectively under the S6 duty.

Communication and engagement

We have been working closely with our Communications and Stakeholder teams to ensure our communications regarding biodiversity is transparent and accurate both for our staff, our passengers and the public. This is important so that everyone understands how, when and why we are doing the work that we do and how it may affect ecology and biodiversity.

This includes, for example, SME input and review of letters sent to residents regarding upcoming works, advice for stakeholder adopters and volunteers, website information, social media posts and external communications to external stakeholders.

Collaboration

We are working closely with key bodies, stakeholders and organisations such as Welsh Government, our community partners, NRW, Wales Invasive Non-Native Species Group, Network Rail and local environmental groups such as the South-East Wales River Trust.

This external collaboration and engagement allows us contribute to creating well-connected communities and make better, more informed decisions - for example linking a project's biodiversity initiatives and funding with local nature conservation priorities and groups. TfW is a member of numerous Local Nature Partnership groups to ensure our work is aligned and wherever possible, identifying potential opportunities for collaboration.

We participate in Community Rail; a government strategy that aims to engage local people in the development and improvement of the railway environment. Community Partnerships are groups of committed people working with the rail industry and Local Authorities to promote railway lines and improve stations, services and access.

We have undertaken community outreach talks to local volunteer and community groups to provide advice, support and engagement on our work and biodiversity opportunities we are doing.

Through the above we can improve our understanding of the current and future needs of our communities, which will positively influence our work.

Mainstreaming best practice

We continue to mainstream best practice for biodiversity in our decision making and operations as standard; where appropriate governance is embedded and signed off at board, department and project levels. This includes provision of staff training to help deliver best practice measures, such as for our land asset managers, engineers and line-side staff to identify habitat management opportunities and risks for biodiversity.

This ensures the inclusion of biodiversity and protection of ecosystems alongside delivering our construction and maintenance works and asset management, whilst also ensuring health and safety conditions are met.

Fundamental best practice principles for ecology and biodiversity are applied in line with our Net Benefits for Biodiversity objective, applying the mitigation hierarchy where applicable:

Avoid > Minimise > Mitigate > Offset

Ecological expertise and technical advice are available to all staff via the Ecology and Biodiversity team to support on how this may be implemented within each team. This includes general advice, project support, training, technical review and signposting for external assistance as necessary.

Recent examples include:

- » Promotion and undertaking of ecological data sharing with external stakeholders (including environmental record centres)
- » Reducing the amount of herbicide used during invasive species control and routine vegetation management (see case studies)
- » Ecological attendance at key internal meetings and groups including Infrastructure
- » Training provided to TfW staff on our responsibilities in relation to biodiversity and best practice including Lunch and Learns, Team sessions and PM 1:1s
- » Attendance at key working groups including Welsh Government, NRW and Local Nature Partnerships to ensure best practice and knowledge sharing
- » Ecology team staff attendance at workshops and training to ensure any developments to ecological best practice are identified and implemented
- » Working towards achieving Welsh Government 'Bee Friendly' status for individual TfW owned stations
- » Working closely with internal SMEs (including climate change and energy) to identify opportunities for integrating best practice for wider ecosystem service delivery, using resources effectively i.e. Nature based solutions (NbS), carbon, water and flood management
- » Streamlining internal processes to allow better, more informed decisions for biodiversity (e.g. Decision-Making Toolkit used at ELT)
- » Exploring innovative ecological solutions for challenging rail related issues such as exploring lineside grazing management, commissioning drone surveys to identify ash dieback and trialling RootWave for invasive species management

By working closely with our staff and stakeholders to support change, we will create a culture shift where biodiversity is embraced on all levels and ensure our actions as an organisation positively contribute to global well-being

Biodiversity initiatives

We have undertaken and are currently working on a variety of biodiversity initiatives during 2019-2022, many of which include working closely with local community groups and are interlinked with active travel routes. A key part of this objective is actively seeking biodiversity opportunities and identify where we can do more beyond what is simply required.

This work contributes to creating attractive, viable, well-connected communities and maximises peoples physical and mental well-being and understanding of this.

Biodiversity initiatives undertaken include:

- » Green features installed at 25 stations and 5 communities across Wales as part of Green Routes HLF project (see case studies section)
- » Green features installed at 52 stations as part of TfW Community Rail
- » Green features installed at Swansea, Minffordd and Llandanwg as part of TfWs Habitat station Creations project
- » Creating, enhancing and improving nine woodland sites across Wales near to and along active travel routes (ongoing; see case studies section)
- » Green roofs planned to be installed on waiting shelters at stations (ongoing)
- » Green infrastructure including a green roof and SuDS to be installed at Caerphilly interchange (ongoing)
- » Green roof shelter prototypes and green wall planned to be installed on head office roof for research and engagement (ongoing)

Challenges, barriers and constraints

A key part of ensuring we achieve our biodiversity objectives and S6 duty compliance is engagement, collaboration and organisational buy in (ELT/ Board sign off). It's acknowledged that the biggest challenge faced will be to integrate what is best for biodiversity alongside the operational requirements of the railway – including health and safety requirements - and that this balance is carefully managed. Many biodiversity initiatives require long term management and maintenance and as such significant funding, long term commitment and resource may be required. This can be difficult to secure retrospectively if problems are identified after funds have already been allocated.

We will continue to work hard to reduce our impacts on biodiversity, including ensuring any future planting is appropriate and resilient (i.e. to impacts from climate change), informed and integrated vegetation management, reducing herbicide use, and embedding the requirement of aspects such as green infrastructure as a key element into designs.



Case studies

Dinas Powys

TfW worked closely with the Dinas Powys station adopter group and maintenance teams to eliminate use of herbicide in proximity to ornamental and pollinator friendly areas which the group managed.

A bespoke maintenance plan was set up in this area to facilitate this.



Taffs Well Depot

Unused and waste wood is collected from Taff Well Depot by Community Wood Recycling with Reseiclo Wood store.

Reseiclo Wood store works with various local projects, such as engage to change, which helps young people with learning disability or autism gain job skills.

1.2 tonnes were rescued from the waste stream in 2022, with 1 tonne of CO² was saved as a result.

Other examples include donating surplus planting materials at our Llanwern site (including 13000 bamboo canes and 1250 stakes) to community woodlands and grassroots network Llais y Goediwg and donating felled timber on Core Valley Lines to local residents for patient use at Llandough Neuro Rehabilitation Unit.

1.2 tonnes were diverted from the waste stream in 2022, with 1 tonne of CO² saved

13000 bamboo canes and 1250 stakes donated to community woodlands and grassroots networks

Felled timber on Core Valley Lines donated for patient use at Llandough Neuro Rehabilitation Unit



Core Valley Lines

We have undertaken a series of comprehensive Invasive Non-Native Species (INNS) surveys since establishing ownership of CVL in 2020 in order to fully identify risks and management opportunities within the TFW ownership boundary. To date, 510,016m² of INNS have been recorded of the following species: Cotoneaster, Himalayan balsam, Japanese knotweed, Montbretia, Rhododendron and Bamboo species.

268,912m² of Himalayan Balsam and 226,885m² of Japanese knotweed are now under long term management plans which were treating using either herbicide spraying, hand pulling, brush-cutting or strimming.

In 2022, during our first round of treatment, we visited or treated a total of 484,903m² of Himalayan and Japanese knotweed.

We also recorded the regrowth of INNS found during this visit since last year's treatment in 2021. We found that an average actual sqm of 335,079 had regrown since our last visit. This means an average percentage regrowth of our Japanese knotweed and Himalayan balsam was approximately 69%.

Though it is not always possible to control INNS using physical or mechanical methods, where practicable, we use alternative methods of treatment such as hand pulling to reduce herbicide use.

The total figure for hand pulling, brush cutting or strimming this year during the first round of treatment of 2022 was 30,712 sqm.

Visited or treated 484,903m² of Himalayan and Japanese knotweed in 2022

268,912m² of Himalayan Balsam and 226,885m² of Japanese knotweed are now under long term management plans

510,016m² of Invasive Non Native Species have been recorded within TFW's ownership boundaries



Green Routes

In December 2020, TfW awarded a National Heritage Lottery Fund Grant of £100,000 for a 'Green Routes' Project via the Welsh Government's Local Places for Nature Scheme.

With a focus on areas of high deprivation, providing access to nature on 'your doorstep'. Delivers biodiversity enhancements such as planters and wildlife boxes, at 25 stations and 5 communities across Wales.

The project was led by the Sustainable Development Team with collaborative delivery support from the Community Rail and Community Engagement Teams.

CVL	South	West		North		Community partners
Caerphilly	Barry Town	Pontarddulais	Kidwelly	Glan Conwy	Conwy	Enbarr Foundation
Pontypridd	Abergavenny	Bridgebd	Llandoverly	Llandudno Jct.	Abergele & Pensarn	Taffs Well Village Hall
Dinas Rhondda	Cwmbran	Milford Haven	Ferryside	Rhyl	Bangor	Cambrian Village Trust
Cardiff Bay	Llandrindod	Haverfordwest	Pembroke Dock	Porthmadog		Bron Fair Allotments
Llanwrtyd		Ammanford				Twyn Community Hub

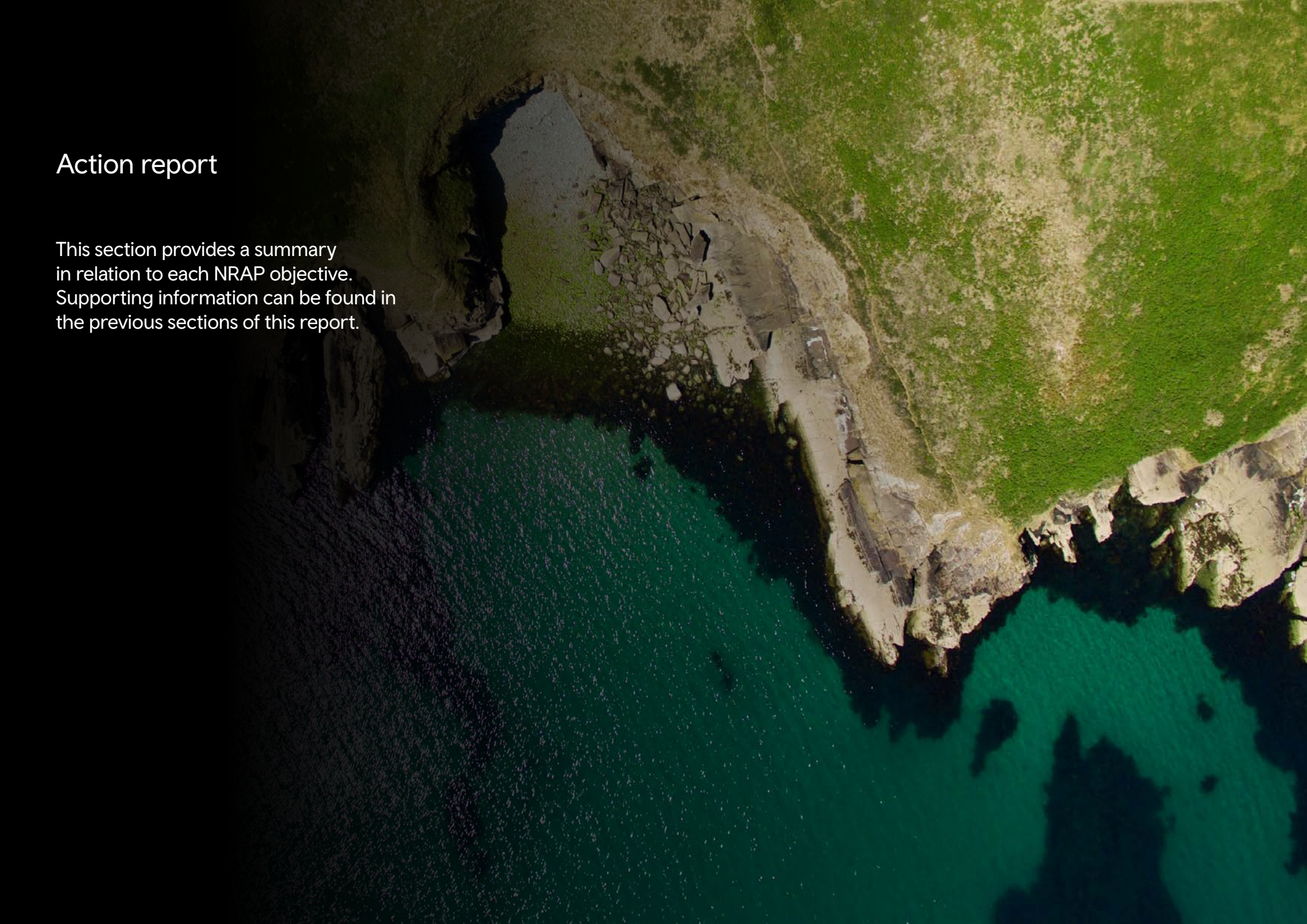
Community Woodlands

Transport for Wales and eleven community partners across Wales have been awarded £100,000 from The National Lottery Heritage Community Woodlands Scheme as part of the National Forest for Wales initiative to create, enhance and improve nine woodland sites across Wales near to and along active travel routes.

The project initiatives include:

- » 36,000 m² of new woodland
- » 630,000 m² of woodland management and enhancement
- » Access improvements
- » 11 community partnerships
- » Volunteer opportunities



An aerial photograph of a rugged coastline. The top half of the image shows a grassy hillside with patches of brown earth. Below the hillside is a rocky shoreline with a small, light-colored sandy or pebbly area. The bottom half of the image shows the ocean with varying shades of blue and green, indicating different depths and water clarity. The overall scene is a natural, coastal landscape.

Action report

This section provides a summary in relation to each NRAP objective. Supporting information can be found in the previous sections of this report.

Objective 1:

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

Biodiversity incorporation

The following corporate plans, policies and documents have been published which incorporate sustainability and biodiversity as standard:

- » Biodiversity Action Plan
- » Five Year Corporate Plan
- » Sustainable Development Plan
- » Corporate Plan
- » Climate Adaptation and Resilience Plan
- » Green Infrastructure Guidance
- » Decision Making Toolkit
- » Environmental Management System - Green Dragon
- » Birds at Stations Guidance
- » Plan of Work
- » Energy Strategy (final draft to be published early 2023)

The CVL Biodiversity Strategy, once published, will include quantitative measures to value biodiversity benefits and gains on our land assets.

All of the above are underpinned by the principles of the WFG Act to ensure decisions and objectives are made for long term and align with the well-being goals.

Funding

Internal budgets allocated annually specifically for biodiversity until April 2023 are as follows:

- » Habitat Creation - £134,000
- » Green Infrastructure - £21,000

Planned works utilising these budgets include installation of biodiverse green roof shelter prototypes on our head office roof and installation of green infrastructure at stations

Training, engagement and awareness

Training, engagement and awareness raising in 2021-2022 has been provided and is ongoing:

- » Quarterly ecology lunch and learns provided to all staff (over 300 in attendance to date)
- » Bespoke team training for example ecology surveys, ecological project requirements and green infrastructure
- » Rail Infrastructure workshops including nesting bird workshops (ongoing)
- » All Company intranet posts including awareness raising for INNS week, Nature Week and Wales Biodiversity Conference (monthly)
- » Mandatory sustainability and biodiversity e-modules are being currently produced and are planned to be trialled for all new starters in 2023

Objective 2:

Safeguard species and habitats of principal importance and improve their management

As part of best practice and ensure legal compliance, any work throughout our operations including infrastructure maintenance, vegetation management and new builds which may affect ecology is subject to Preliminary Ecological Appraisals, protected species surveys and/or ecology scoping surveys as required to identify any potential impacts and mitigation on protected and/or priority species and habitats.

Any Biodiversity Initiatives we undertake as part of our BAP objectives are informed with priority species and habitats as part of the evaluation process, including undertaking desk studies on a site-by-site basis to identify potential opportunities to enhance habitats or initiatives (e.g. plant species used and/or habitat management) for local priority species that are/may be present.

The Biodiversity Strategy, when completed, will contain measures to protect priority species and habitats on our land assets as standard (including bespoke land management per route section) as well as prioritising creating and protecting resilient ecosystems by establishing habitat complexity and longevity.

The TfW ecological assets database will include a dataset identifying biodiversity opportunities across our network which will be informed by protected species, habitats and INNS data and habitat and species connectivity opportunities (such as Buglife's B-lines).

Core Valley Lines

We're electrifying the rail network in the South-East Wales Valleys. Vegetation near the railway can be a hazard to our staff and passenger health and safety. Vegetation management along the Core Valleys Lines is an essential part of electrification, also to make the railway, safer, more reliable, and more adaptable to future climate change challenges. Historic shortfalls of line maintenance mean we're seeing big changes on our railway currently; including more vegetation being removed than has been for many years.

Ecological surveys and impact assessments have been undertaken prior to works so that we can understand the impacts of this work, and if/where/ what mitigation is required.

We implement a range of measures to protect wildlife during and following works - this includes, where required, securing relevant licences from Natural Resources Wales (NRW) to work in areas with protected species, undertaking ecological pre-checks and supervision (for example, for nesting birds), biosecurity measures to prevent invasive species spread and long-term mitigation for species such as bats, where we are creating and enhancing additional areas of habitat under long term management plans.

We will be developing a Vegetation Management Plan for the Core Valley Lines as part of our Climate Change Adaptation and Resilience Plan. The plan will seek to ensure that we maintain vegetation in places (where appropriate) to increase the resilience of our assets (such as earthworks), provide shade in hot temperatures and slow down rainfall and water run off - this will have to be balanced with ensuring track-side vegetation is managed to maintain safety. This in turn will provide protection for existing priority habitats and species (if present).

We will also be reviewing any new planting in relation to climate change - some species for example will be more tolerant of extreme winds and temperature changes and as such could be more suitable on trackside locations. We will be investigating natural solutions to managing flooding on our network further information on this is included in our Climate Adaptation and Resilience Plan which will be published end of 2022.

All statutory, non-statutory and locally designated sites are included as part of ecological surveys undertaken as standard prior to any works which may affect protected sites and species. Any located with our own land assets are subject to protection, including enhancement and/or beneficial management, where applicable.

Waltwood

TfW currently manages three Sites of Importance for Nature Conservation; located at Waltwood near Bishton, Newport:

Craig-Y-Perthi Field North is designated for its semi-improved calcareous grasslands within larger improved grassland field.

Craig-Y-Perthi Field South is designated for its semi-improved calcareous grasslands within larger improved grassland field.

Craig-Y-Perthi Wood is designated for Ancient semi-natural woodland with large population of goldilocks buttercup (*Ranunculus auricomus*) and early purple orchids (*Orchis mascula*).

All three are located in the same vicinity and are subject to targeted management to retain and protect these qualifying features including annual monitoring, sheep grazing and woodland management.



Objective 3:

Increase the resilience of our natural environment by restoring degraded habitats and habitat creation

In line with our Biodiversity Initiatives BAP objective, we have created green features and spaces at over 80 stations collectively since 2019; with more planned; and an emphasis on pollinator planting in these areas where applicable. We're currently creating and enhancing nine woodland sites across Wales as part of our Community Woodlands project.

We will continue to work closely with Station Managers and Station Adopter groups to improve habitats at local stations; for example by implementing wildlife friendly grassland cutting (see case studies section).

Collectively – and in line with relevant Area Statements - these actions play an important role in connecting people with nature, helping to establish green 'stepping-stones' across our network in areas previously lacking or limited in green features, reduce local habitat fragmentation and improve local ecosystem resilience. TfW is currently working with NRW to establish meaningful partnerships in relation to the South- East and South-Central Area Statements.

Once completed, the CVL Biodiversity Strategy will include measures, guidance, opportunities and recommendations on suitable habitat creation, enhancement and management based on each route. This will include working with adjacent landowners to identify opportunities for joined up management and landscape scale improvements.

Objective 4:

Tackle key pressures on species and habitats

Key pressures

We have undertaken comprehensive Invasive Non-Native Species surveys since establishing ownership of CVL in 2020 in order to fully identify risks and management opportunities within the TfW ownership boundary.

As part of this, 268,912m² of Himalayan Balsam and 226,885m² of Japanese knotweed are now under long term management plans which we are treating using either herbicide spraying, hand pulling, brush-cutting or strimming. In 2022, during our first (out of two) round of treatment, we visited or treated a total of 484,903m² of Himalayan and Japanese knotweed.

In addition to treatment, we implement strict biosecurity protocols when working in any areas of invasive species.

To reduce risks to biodiversity, human health and non-target species, we are working hard to reduce and where possible eliminate use of herbicides on our land assets; whether this relates to management of invasive species or as part of routine vegetation management.

This involves working closely with our IDPs, station adopter groups, station managers and contractors to determine where we can undertake alternative management (such as hand pulling/mechanical removal) instead of herbicides (see case studies section for station example).

For example, since establishing ownership of CVL in 2020 we have created a treatment evaluation process to determine whether INNS can be treated by hand pulling, brush-cutting or strimming; as opposed to herbicide spraying. Though it is not always possible to use physical or mechanical methods, alternative methods such as hand pulling Himalayan balsam to reduce herbicide use are evaluated for each treatment area. The total figure for hand pulling, brush cutting or strimming this year during the first round of treatment of 2022 was 30,712 sqm; equivalent to over 600 litres of herbicide.

We are also trialling alternative uses of INNS treatment such as RootWave, which uses high voltage electrical currents to kill target plants without the use of herbicides.

Climate change and resilience

TfW contributes to Wales' goal of decarbonising our network through measures such as electrification of Core Valley Lines network, using Nature Based Solutions and working to removing contamination at all CVL stations. Our approach is outlined in our Low Carbon Impact Strategy.

TfW's Climate Adaptation and Resilience Plan aims to ensure that TfW fully identifies, captures, and mitigates its climate risks across our networks and operations, by committing to embed climate resilience into everything we do. Through recognition of the intrinsic links between resilience and the nature crisis, our strategic climate resilience action plan is centred around the co-benefits that can be realised if adaptation is delivered effectively. Restoration of our natural spaces and biodiversity is critical to society's adaptation to climate change; symbiotically reversing nature losses whilst also responding to a changing climate. As such, Nature-based Solutions (NbS) will be considered as a priority over hard engineering options, to maximise opportunities or working with nature to reduce TfW's exposure to climate risks. If hard engineering solutions are evaluated as the most appropriate, we will endeavour to ensure that such projects are executed sensitively to minimise any impacts on surrounding habitats and/or species.

Green infrastructure

Green infrastructure is encouraged to be incorporated at the early design stage in to maximise benefits. Our Green Infrastructure Toolkit includes green roofs and walls, multifunctional wildlife planting, habitat boxes and SuDS. Green infrastructure including a green roof and SuDS are planned to be installed at Caerphilly interchange (ongoing).

For example, we have introduced permeable surfaces, car park hydro planters and infiltration blankets to our Taff's Well depot which will reduce pollution levels through runoff to the environment.

Reduce, reuse and recycle

As part of the Craidd Alliance, unused and waste wood is collected from Taff Well Depot by Community Wood Recycling (via Reseiclo Wood store). Although the amount of wood collected from Taffs Well to date is too low to register on all of the proportional social outcomes on the impact report calculator (12 cubic yards), all collections contribute to the success of the collecting enterprise and the network of Community Wood Recycling.

Reseiclo Wood store works with various local projects, such as engage to change, which helps young people with learning disability or autism gain job skills. 1.2 tonnes were rescued from the waste stream in 2022, with 1 tonne of CO² was saved as a result.

Other examples include donating surplus planting materials at our Llanwern site (including 13000 bamboo canes and 1250 stakes) to community woodlands and grassroots network Llais y Goediwg and donating felled timber on Core Valley Lines to local residents for patient use at Llandough Neuro Rehabilitation Unit.

Community green spaces

As part of the Craidd Alliance, volunteers from Alun Griffiths cleared a 2,800 sq. m of overgrown ground at Taffs Well Allotments in 2021, as part of the Food Growing Co-Operative. This was to prepare the area to grow fruit and vegetables to supply the local community and food banks with fresh produce boxes. A pond was also created to encourage native wildlife such as frogs, newts and ducks to the area.

Throughout the year, crops successfully established and produce boxes were created for the local community. However, further assistance was needed in the area to fully utilise the space. Volunteers from Alun Griffiths, Amey and Siemens joined together to clear old crops, plant new seasonal vegetables, move compost material, digging, delivering pallets and assisting in the erection of a new polytunnel.

The hard work put in by all volunteers not only assisted in the maintenance of the allotment and helped in the future production of fresh food boxes but has created an area that will enable local schools and children's mental health charities to use, helping to educate young people on the importance of a healthy diet and growing your own.

Community green spaces have been installed as part of our Green Routes project and will be created across Wales at nine sites as part of Community Woodlands project (see case studies section). Both projects aim to contribute positive impacts on health and wellbeing as well as biodiversity.

Objective 5:

Improve our evidence, understanding and monitoring

Data collation and sharing

We follow best practice guidance and legislation in relation to data collation and sharing. Ecological opportunities, risks and any mitigation or licences required as a result of our work is informed by securing relevant species and habitat data (including section 7) from relevant environmental records centres as required. Any potential impacts upon S7 species and habitats are subject to an ecological mitigation hierarchy to avoid this, only reducing or mitigating where this is unavoidable.

We share our ecological data from our network with the South-East Wales Biodiversity Records Centre (SEWBREC) to improve and promote regional natural recording and knowledge sharing.

The public can request to see ecological data collected or held as part of our work by submitting a Freedom Of Information Request, and is shared with local community groups as applicable.

Work is currently underway to secure a Service Level Agreement with Aderyn so that data sharing is more streamlined and accurate on our network in relation to decision making, works and risks to biodiversity.

We are currently creating an internal ecological assets database which will allow our staff to better understand where ecological opportunities and constraints are on our network. This includes recently commissioning Lidar and aerial drone surveys to gather more accurate information on habitats and better identify and monitor issues such as Ash Dieback (of which data will be shared with records centres). This in turn will inform any subsequent short- and long-term management plans and budgets.

The TfW ecological assets database will include a dataset identifying biodiversity opportunities across our network which will be informed by ecological data for protected species, sites, habitats, INNS and connectivity opportunities (including for example data from NRW's Wales Environmental Information Portal and Buglife's B-lines).

Governance and compliance

The TfW Executive Leadership Team (ELT) and Board reviewed and approved the TfW BAP in 2021 and this report and will be required to review and approve any subsequent iterations.

Our objectives and duties in relation to S6 duty are reviewed quarterly by the Ecology and Biodiversity Manager, and annually by the Head of Sustainability and Climate Change.

Our biodiversity and ecology commitments – including those in the BAP and under S6 duty – are subject to a Monthly Risk Management Review and quarterly Executive Safety Review to ensure compliance

Volunteering

Volunteer opportunities are and will continue to be encouraged, such as volunteering to help on any green initiatives TfW is undertaking e.g. installation of planters at stations as part of our BAP Biodiversity Objectives, and signposting to external biodiversity volunteering opportunities as applicable.



Ecological support

Ecological expertise is available to all staff at TfW via the Ecology and Biodiversity team. This includes general advice, project support, training, technical review and signposting for external assistance as necessary.

Budgets - Biodiversity

Internal budgets allocated for specifically for biodiversity until April 2023 are as follows:

- » Habitat Creation - £134,000
- » Green Infrastructure - £21,000

Planned works utilising these budgets include installation of biodiverse green roof shelter prototypes and a green wall at our head office and installation of green infrastructure at stations.

Colleagues and resourcing

We have expanded our Ecology and Biodiversity team capabilities by recruiting an in-house Ecologist, Sustainable Development Project Coordinator and Project Implementation Lead in the Sustainable Development team in 2022.

Funding and Partnerships

We will continue to seek and apply for appropriate funding to enable biodiversity initiatives, as per our Green Routes project (£100,000 HLF funding granted in 2020; ongoing) and Community Woodlands (£100,000 HLF funding granted in 2021; ongoing); see case studies for further details.

Examples of community partners worked with to date include the Enbarr Foundation, Taffs Well Village Hall, Cambrian Village Trust, Bron Fair allotments and Twyn Community Hub.

We work closely with local environmental groups such as the South-East Wales River Trust to ensure transparency, support and engagement in our operations.

TfW is a member of numerous Local Nature Partnership groups to ensure our work is aligned and wherever possible, identifying potential opportunities for collaboration.

Examples of this include donating surplus planting materials (including 13,000 bamboo canes and 1,250 stakes) to community woodlands and grassroots network Llais y Goediwg.

Review of S6 duty



Review of S6 duty

During production of this report we have reviewed our approach to our S6 duty.

The key issues highlighted are:

1. Understanding and creating an effective means of measuring and delivering Net Benefit for Biodiversity (NBB) in our operations in order to effectively report under S6 duty in the future. In the absence of detailed guidance at this stage, this may require multiple iterations and continued development;
2. Recent reform of WG expectations in relation to Net Benefit for Biodiversity (as opposed to other methods such as BNG and its associated metric) provides an opportunity to review and refresh industry roles including biodiversity requirements and approaches in the rail industry in Wales;
3. Allocating and securing sufficient funding will be required to deliver meaningful biodiversity objectives and goals on an annual basis. This may prove challenging when faced with typical 'value engineering' criteria;
4. Continued Executive Leadership Team support is required to drive and promote the cultural change and innovation required to meet our legislative biodiversity obligations and responsibilities, and;
5. Organisation-wide training and engagement is essential to drive cultural change and ensure biodiversity is viewed as an essential element of our operations; with delivery of this strategically targeted for relevant directorates within the organisation.