

# Nature Recovery Plan 2023-2030



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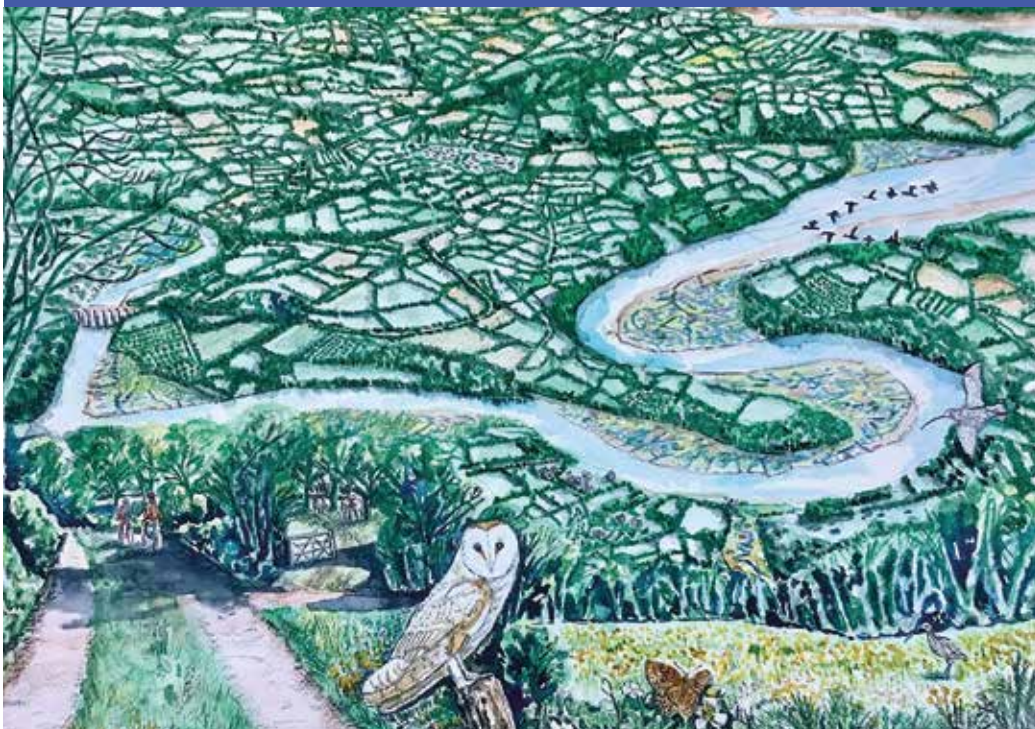
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# What nature recovery in the Tamar Valley AONB can look like



Artist's impression of the Lower Tamar-Tavy 2023



Artist's impression of the Lower Tamar-Tavy  
Enhanced Nature Recovery Network  
Artist: Phil Collins

# Executive summary

**The Tamar Valley Area of Outstanding Natural Beauty (AONB) and its partners want to urgently prioritise and invest in the recovery and enhancement of nature. This will help to safeguard the future of our wildlife, our landscape, our communities and our local economy.**

## ***We need nature***

Nature, and nature-based services (such as clean air, clean water, healthy soils, flood control and carbon storage), provide the essential basis upon which we all rely for our health and wellbeing and for the quality of landscapes. Due to a combination of factors, caused mainly by human activity over recent decades, nature is struggling. Species and habitats are being lost or have deteriorated dramatically - changes in land, river and sea use and their management; resource extraction; pollution; invasive non-native species; these are all playing their part, compounded by the impact of a changing climate.

This Nature Recovery Plan is intended to provide a framework for action and improvement. It sets out some priorities and actions that are necessary, as well as urgent steps to ensure significant benefits for nature, climate change adaptation and people across the Tamar Valley AONB and our neighbouring areas. It is intended to unlock pathways and funding for practical actions over the next decade that will achieve long-term positive change. Critically, as highlighted in the National Association for AONBs' 2019 Colchester Declaration, change can only be achieved with the necessary powers and resources. If the powers and resources are not provided, our actions, no matter how well we plan, will be limited.

Our objective is to focus effort over the next seven years as we work to deliver three interconnected key pledges: habitat recovery; species recovery; and nature connectedness. Nature Recovery Plans are a key element to the shared vision of AONBs to create resilient landscapes that are great places for wildlife and people, and that will help target investment in nature going forward.

## ***We will:***

### **1. Take action in our designated ecological sites**

We want to work with farmers, landowners, statutory bodies and other partners to assess and help improve the condition of existing high-value sites, in particular Sites of Special Scientific Interest (SSIs) and County Wildlife Sites (CWS). We will identify volunteering and resourcing opportunities at these designated sites to implement improvements and resilience measures (where sites are in an unfavourable condition or undermanaged).

### **2. Take action across the working landscape**

We will work with farmers, foresters and landowners to create and manage more, bigger, better and joined-up priority habitats and to apply good soil management practice across the landscape. We will identify our five distinct habitat, species and connectivity opportunities (nature recovery projects) and secure the additional resources to implement these improvements. We will develop and prioritise projects which deliver multiple outcomes (in addition to biodiversity), such as carbon benefits, natural flood management, improved water quality and pollution reduction, etc., wherever possible. We will work closely with our local authorities and other partners to ensure that projects and actions are aligned to the aims of the Devon and Cornwall Local Nature Recovery Strategies (in development as part of their new statutory duties).

### **3. Take action in our built-up and post-industrial areas**

We will work with individuals, community groups, parish councils, local authorities (including via proactive neighbourhood development planning) and other partners to encourage and support the protection of private and public spaces for wildlife in villages, gardens, parks, heritage sites, school grounds, verges, etc. Using a list of Tamar Valley Special Species and other resources at our disposal, we will work to engage with key stakeholders and local communities in order to identify practical projects and opportunities for grassroots nature recovery action in the wider community.





View across the wooded Tamar Valley AONB landscape towards Plymouth Sound © Tobi O'Neill/TON Drone Services



**4. Take action to increase opportunities for people to connect with nature**

We want people to enjoy, understand and access the natural environment, by providing meaningful opportunities to take positive action for, and to connect with, nature, with all the wellbeing benefits that brings. This is good for people and it's good for nature, too – what we care for we value, and what we value we protect.

**5. Review this Plan and monitor and report on progress every two years**

This will include assessing progress against each of the above actions, in addition to measurable contributions to the nature recovery targets of our local authority partners. We will also work with our partners on Local Nature Partnerships to establish robust and best available monitoring data (such as 'land cover mapping') to track our progress. We will report on our progress publicly via our AONB Partnership and Executive.



**New wetland habitat on the River Tamar at Calstock © Jan Simpson**

The Tamar Valley AONB will ‘Support the conservation and enhancement of priority habitats and reverse the general decline in biodiversity within the AONB, securing increase in the population of associated priority species, and improvements in ecological connectivity through habitat creation and restoration, focussing on natural capital and ecosystem services.’



# Our vision - 2030 and beyond

This is the vision we aspire to achieve for the Tamar Valley AONB over the next seven years and beyond.

## **Nature is recovering and thriving across the Tamar Valley.**

*There is even more wildlife-rich habitat for us all to enjoy, covering at least 30% of the land area of this protected landscape by 2030. We have improved the quality, coverage and connectivity of our priority habitats, including our woodlands, orchards, hedgerows, field margins, wetlands, freshwater and coastal areas.*

Our habitats are supporting a greater abundance of species and are teeming with pollinators, and our Tamar Valley Special Species are stable or increasing in numbers.

Nature is a valued asset in the working landscape. Our partners and business communities, farmers, foresters and fishers are helping nature to recover and thrive and are seeing the benefits within their businesses.

People feel more connected to nature, especially in their own locality, and their health and sense of wellbeing is benefitting as a result. Communities are empowered, taking action to create space for nature where they live, and they feel connected to neighbouring communities doing the same.

*"The essence of what needs to be done to enhance the resilience and coherence of England's ecological network can be summarised in four words: more, bigger, better and joined."*

**Professor Sir John Lawton et al., 2010**

*"Humanity is now standing at a crossroads. We must now decide which path we want to take. How do we want the future living conditions for all living species to be like?"*

**Greta Thunberg, 2019**



We are at a unique stage in our history. Never before have we had such an awareness of what we are doing to the planet, and never before have we had the power to do something about that.

The truth is: the natural world is changing. And we are totally dependent on that world. It provides our food, water and air. It is the most precious thing we have and we need to defend it.

**Sir David Attenborough**

# Introduction

## The ecological and climate emergencies

Climate change is one of the greatest threats to biodiverse ecosystems. Degraded ecosystems are less able to absorb carbon from the atmosphere and more likely to emit carbon into the atmosphere. The relationship between climate and biodiversity is inseparable. Cornwall Council and Isles of Scilly Environmental Growth Strategy [1] recognises that we need to go beyond decarbonising energy by also growing nature. This will help us reduce the risks, draw down carbon, increase our ecological and climate resilience and adapt. Fail on one of the biodiversity or climate crises and we fail on both - we must tackle both together.

Adapting to our changing climate, with projected temperature increases, altered patterns of rainfall, high-intensity storm events and the resulting impact on human food and water provision, requires nature recovery planning that is, as much as possible, 'future-proof'. How will we adapt as much-loved habitats and species we have long considered 'native' change within our lifetime? As humans, our instinctive response to any challenge is to anticipate, adapt to and where possible control (or at least influence) the direction of change and never before have we needed to be more flexible in our planning and vision.

Cornwall Council published a Climate Risk Assessment Report in 2022 [2] detailing how the county and the natural environment will be effected by climate change including climate sensitivity and expected impact of climate change on habitats and species. Work is underway across both Devon and Cornwall to find solutions to tackle and mitigate for the impact of climate change, e.g. Devon County Council's Local Flood Risk Management Strategy 2021-2027 [3]. It includes the use of natural solutions to manage and reduce flood risk while also delivering wider improvements where possible, such as biodiversity gain. The Tamar Valley AONB is producing a Climate Action Plan in 2023 to identify positive actions that can be taken for climate change mitigation and adaption in our area, including nature-focussed solutions, and to set out a scheduled and resourced plan of action - natural capital and ecosystem services will be central to this work.

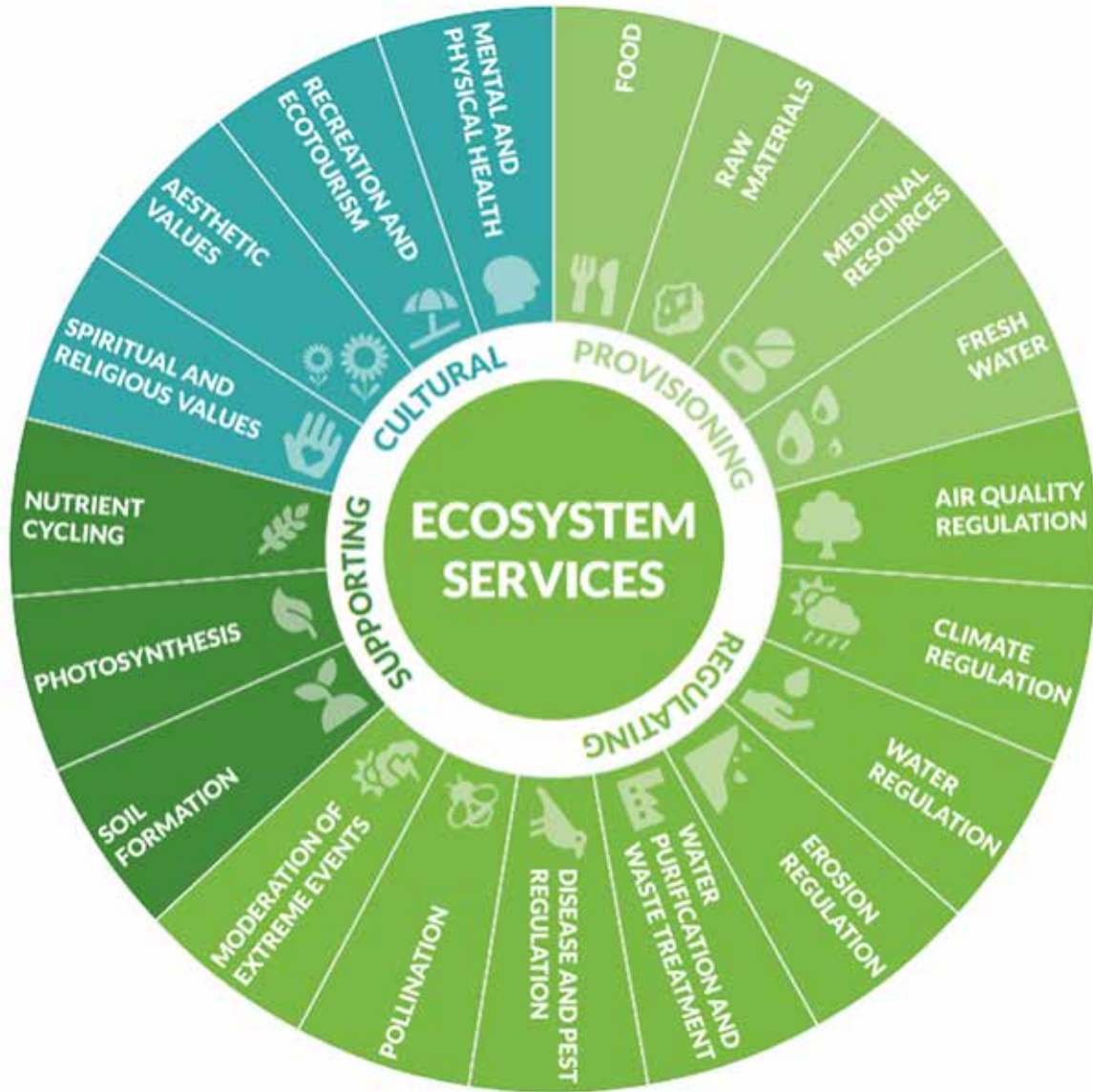
## Why grow nature? – natural capital and ecosystem services

Our awareness of the real value of nature is increasing. The natural capital assets of the Tamar Valley AONB includes the physical and natural resources – such as our soil, air, water, rivers, fisheries, forests and biodiverse species – which provide us with a wide range of ecosystem services. We are learning more about the actual economic value of these essential services which we rely on.

We now know that the total value of natural capital in the Tamar Valley AONB is £39 million per annum. This includes, for example, the value of climate regulation (natural carbon capture and storage) at over £8m, and air pollution removal services that trees and plants provide is valued at £2.5m. The stock of biodiversity alone is worth £2 billion!

Natural Environment Investment Readiness Fund (NEIRF) project, (2021-2023)





Why grow nature? © Cornwall and Isles of Scilly Local Nature Partnership [4]

1 Cornwall and Isles of Scilly Environmental Growth Strategy 2020-2065 – <https://letstalk.cornwall.gov.uk/environmentalgrowth>

2 Cornwall Climate Risk Assessment Report 2022 – <https://letstalk.cornwall.gov.uk/cornwall-climate-report>

3 Devon Local Flood Risk Management Strategy 2021-2027 –

<https://www.devon.gov.uk/floodriskmanagement/local-flood-risk-management-strategy>

4 Cornwall & Isles of Scilly Local Nature Partnership – <https://naturecios.org.uk/why-grow-nature>

The people of the Tamar Valley are stewards of this rare valley and water landscape of high visual quality, a unique wildlife resource with a remarkable heritage, which is a legacy of thousands of years of human occupation. By supporting a thriving community with a sense of belonging and identity, we will ensure the sustainability of the area as a peaceful, tranquil breathing space, at a time of unprecedented change.

## The Tamar Valley AONB Management Plan 2019–2024

The Tamar Valley's unique wildlife resource is one of the aspects of natural beauty that justifies the AONB's national importance and designation. The Tamar Valley AONB Management Plan [1] (currently extended to 2025) sets out a number of priorities for action for habitats and species that are fully aligned with this Nature Recovery Plan. Feeding into the Management Plan are improvement targets for priority land use and habitats identified in the State of the Tamar Valley 2018/19 report [2]. Guidelines for the management and protection of biodiversity and semi-natural habitats in the Tamar Valley Landscape Character Assessment 2020 [3], in response to identified positive and negative forces for change, are also incorporated.

Combined, this information informs our planning and the priorities we set which will direct the allocation of resources, fundraising and partnership activity for nature recovery over the next seven years and beyond.

## Local Nature Partnerships and Local Nature Recovery Strategies

We actively support the Local Nature Partnerships of our partner local authorities in Devon [4] and Cornwall [5]. They have been established to bring a range of organisations together in a strategic collaboration, to help restore and grow the natural environment for people, wildlife and businesses, ensuring 30% of land and sea is positively managed for nature recovery by 2030. Priority goals of delivering Nature Recovery Networks [6], responding to the climate emergency and connecting people and nature look to enable decision making with the natural environment at its heart.

Key to this is the Nature Recovery Network, envisioned as a joined-up system of places (habitats) important for wild plants and animals, on land and at sea. The county-level Nature Recovery Networks will form part of a national network, a key commitment in the UK government's A Green Future: Our 25 Year Plan to Improve the Environment [7].

Our local authority partners are also developing detailed Local Nature Recovery Strategies [8] which will provide blueprints for nature growth in the region at a county level in Cornwall and Devon. These strategies are statutory requirements of the UK Government's The Environment Act 2021 [9] with reporting of progress required every five years. The AONB is inputting to these strategies and will ensure alignment with their targets and objectives.

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**1 Tamar Valley AONB Management Plan 2019-2024 (extended to 2025) –**  
<https://www.tamarvalley.org.uk/tvaonb-caring/#management>

**2 State of the Tamar Valley 2018/19 report –**

<http://www.tamarvalley.org.uk/wp-content/uploads/2020/11/State-of-AONB-2018-final-compressed.pdf>

**3 Tamar Valley Landscape Character Assessment for the Tamara Landscape Partnership (2020) –**

<https://www.tamarvalley.org.uk/wp-content/uploads/2021/05/Tamar-Valley-LCA-report.pdf>

**4 Devon Local Nature Partnership –** <https://devonlnp.org.uk>

**5 Cornwall & Isles of Scilly Local Nature Partnership –** <https://naturecios.org.uk>

**6 Nature Recovery Network –** <https://www.gov.uk/government/publications/nature-recovery-network>

**7 A Green Future: Our 25 Year Environment Plan to Improve the Environment (2018) –**

<https://www.gov.uk/government/publications/25-year-environment-plan>

**8 Local Nature Recovery Strategies (LNRS) –**

<https://www.gov.uk/government/publications/local-nature-recovery-more-information-on-how-the-scheme-will-work>

**9 The Environment Act 2021 –** <https://www.gov.uk/government/news/world-leading-environment-act-becomes-law>



Tamar Community Trust volunteers hedge planting at South Hooe © V. Darwall, Tamar Valley AONB



## Delivering 30 by 30

In 2020, the UK government set a challenging target, to enhance biodiversity by protecting and managing 30% of our land, rivers and sea by 2030 – part of a global effort known as ‘30 by 30’ [1]. When eventually realised, this landscape-scale initiative will make a major contribution to nature recovery, but there is concern that deregulation, including the repeal of EU environmental protections, will limit progress and our ability to deliver 30 by 30.

Protected landscapes, including National Parks and the 46 AONBs in England, Wales and Northern Ireland have an important part to play – AONBs combined cover 18% of the UK countryside and include many highly-valued ecological sites. Natural England data on our most important semi-natural priority habitats indicates that 24% of the Tamar Valley AONB is covered by such habitats – and this data does not include hedgerows which are extensive across the AONB. From a coverage perspective, the Tamar Valley has a good start, but there are two significant challenges – the current condition and management of these habitats is not fully understood and the majority are not afforded a high level of protection under UK law.

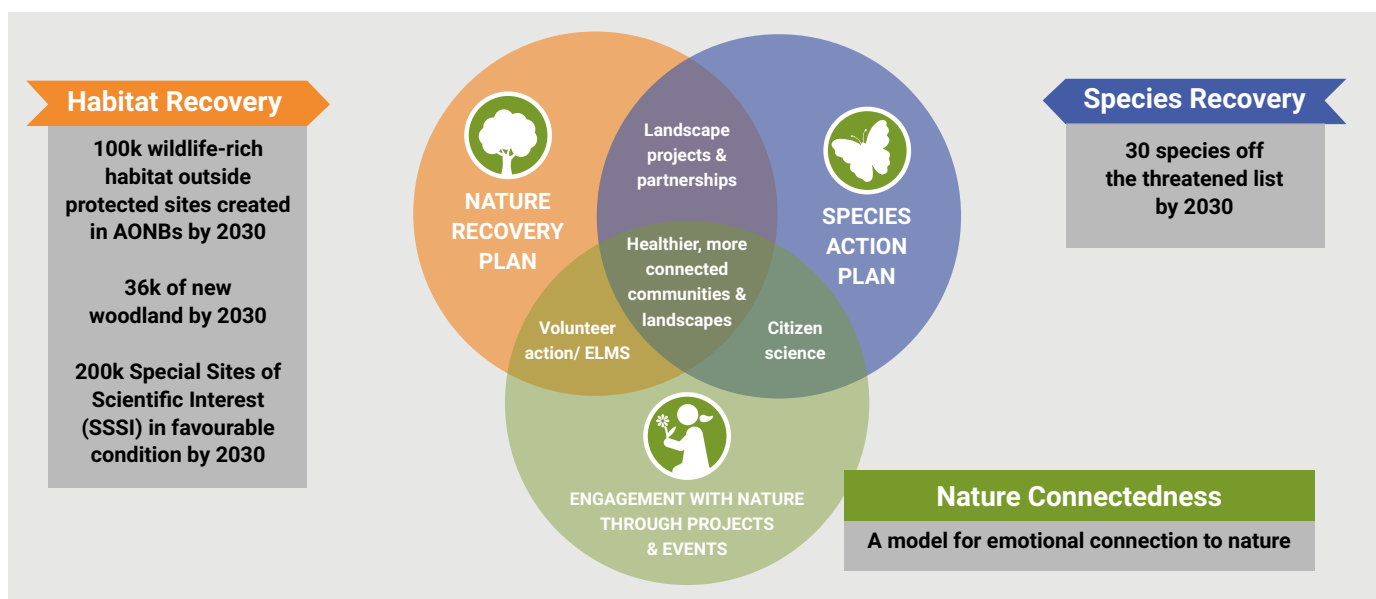
A 2021 study on the extent and effectiveness of protected landscapes in the UK [2] suggested that as little as 5% of the UK’s AONBs and National Parks may be effectively protected for nature and that future protected landscape targets must emphasise the quality as well as quantity of protected landscapes, with improved monitoring and management. In addition, protected landscapes are not nature reserves – they are working landscapes where a balance between nature recovery alongside other needs (food security, water extraction, etc.) must be achieved.

The governments’ Nature Recovery Green Paper: Protected Sites and Species (March 2022) [3] stated that ‘Under their current statutory purposes, level of protection and management, it is our view that they [protected landscapes] cannot be said to contribute to 30 by 30 at this time and that areas contributing to 30 by 30 must;

- have a clear purpose of conserving biodiversity (although this may not be their primary purpose).
- have long-term protection and/or management in place that works against adverse pressures on the area’s biodiversity objectives, or actively results in improved outcomes for biodiversity.
- deliver the appropriate and necessary biodiversity outcomes. These will be measurable, monitored and can be used to assess the ongoing improvement in these areas.

## The National Association for AONBs’ Colchester Declaration

Work is underway across the UK to address this shortfall in the delivery of nature recovery in protected landscapes, including under the National Association for AONBs’ 2019 Colchester Declaration [4] with a commitment to three interconnected pledges which collectively deliver the following common goals across the UK, as illustrated below:



The diagram above outlines the relationship between three key pledges within the Colchester Declaration and the connection to healthier and more connected landscapes and communities. We are also committed to embedding an ecosystems services approach into our next Tamar Valley AONB Management Plan (2025-2030), ensuring it includes meaningful measures around climate change mitigation and adaptation, including clear, measurable targets to support Net Zero [5].



## Drivers and mechanisms to deliver positive change for nature

The Tamar Valley AONB Partnership has a duty to be one of the main drivers of positive change, where resources and collaborative working are already in place. Here, and across the country, positive action for nature is already being taken in partnership with communities, farmers, landowners and a range of organisations and we want to build on this.

### Local (within the Tamar Valley AONB and adjacent areas)

- Grassroots action by individuals, communities and parish councils.
- Ambitious local projects to recreate and restore habitats, needing public, private and third sector finance and partnership working.
- Positive relationships with landowners, farmers and managers, supporting them as they respond to changing land management demands and expectations. There is a need to be ambitious, but nature recovery has to fit with commercial farming and other land uses.
- Ownership or management of key sites by conservation bodies and trusts, linking them with the wider landscape.

### Regional

- Devon and Cornwall & Isles of Scilly Local Nature Partnerships.
- Local Nature Recovery Strategies.

### National (broader mechanisms required for positive change)

- Government policy on responding to climate change emergency and supporting nature-based solutions to climate change, including public and private investment.
- Agriculture and land-use policy and agri-environment schemes. Good incentives and minimal barriers are required, supporting sustainable activity with support for transitions and recognising the social and cultural context of farming, forestry, fisheries and nature.
- Planning policy, decisions and enforcement action by various regulators to prevent direct harm to habitats and species.



Hedge event with the head ranger at National Trust Cotehele © A Lewthwaite, Tamar Valley Farming in Protected Landscapes Project Development Officer, Tamar Valley AONB

1 Global '30 by 30' commitment – <https://www.un.org/sustainabledevelopment/blog/2021/07/a-new-global-framework-for-managing-nature-through-2030-1st-detailed-draft-agreement-debuts>

2 Starnes, T. et al (2021): The extent and effectiveness of protected areas in the UK. *Global Ecology and Conservation*, Vol. 30. <https://www.sciencedirect.com/science/article/pii/S235198942100295X>

3 Nature Recovery Green Paper: Protected Sites and Species (2022) – <https://consult.defra.gov.uk/nature-recovery-green-paper/nature-recovery-green-paper/>

4 National Association for AONBs Colchester Declaration (2019) – <https://landscapesforlife.org.uk/projects/colchester-declaration>

5 United Nations Climate Action Net Zero – <https://www.un.org/en/climatechange/net-zero-coalition>

## Helping hands for nature recovery

Here are just some of our partners and organisations working in the Tamar Valley AONB, not to mention individuals and community groups that are taking action for nature across the AONB. Nature recovery is a huge and urgent challenge – we have to work together to make it happen. Please note, this list is by no means exhaustive and we are grateful to everyone who is involved.







## Financing nature recovery

The economy is a wholly owned subsidiary of the environment, not the other way around.



### Gaylord Nelson (US senator, Founder of Earth Day)

Government has made it clear that it wants to see protected landscapes working together to deliver more clear benefits for nature, climate, people and place. It is also prepared to back this up, by strengthening our purpose and powers, and by providing more resources to enable us to 'do more good stuff' for the benefit of the Tamar Valley (which includes the Tavy and Lynher of course).

We are currently delivering nature recovery action through grant funded work e.g. the Heritage National Lottery funded Tamara Landscape Partnership Scheme, in addition to Defra core funded work. However, traditional core and grant-funding models will only go so far, especially with ongoing pressures on public funding. In 2019 the Chancellor of the Exchequer commissioned a review, led by leading economist, Professor Sir Partha Dasgupta. Published in February 2021, *The Economics of Biodiversity: The Dasgupta Review* [1], is a full and frank assessment of:

- The economic benefits of biodiversity globally, and
- The economic costs and risks of biodiversity loss.

It identifies a range of actions that can simultaneously enhance biodiversity and deliver economic prosperity.

'Our economies, livelihoods and well-being all depend on our most precious asset: Nature'  
'The solution starts with understanding and accepting a simple truth: our economies are embedded within Nature, not external to it.'



*We need to:*

- *'Ensure that our demands on Nature do not exceed its supply, and that we increase Nature's supply relative to its current level*
- *Change our measures of economic success to guide us on a more sustainable path, and*
- *Transform our institutions and systems – in particular our finance and education systems – to enable these changes and sustain them for future generations.'*

**The Economics of Biodiversity: The Dasgupta Review, February 2021**

The UK government is responding to the key recommendations of *The Economics of Biodiversity: The Dasgupta Review* and is looking to enable a range of additional financial mechanisms that will engage and enable increasing private-sector investment in nature-based services. Such mechanisms include:

- Biodiversity Net Gain (BNG) [2]. Under *The Environment Act 2021*, all planning permissions granted in England (with a few exemptions) will have to deliver at least 10% BNG from 2023. BNG is an approach to development that leaves biodiversity in a better state than before by creating new habitat or enhancing existing habitat to mitigate or compensate for biodiversity losses caused by the development. BNG will be measured using Defra's biodiversity metric and habitats will need to be secured for at least 30 years.

This sits alongside:

- A strengthened legal duty for public bodies to conserve and enhance biodiversity.
- New biodiversity reporting requirements for local authorities.
- Mandatory spatial strategies for nature: Local Nature Recovery Strategies (LNRS).
- The Environment Act also enables the use of conservation covenant agreements – voluntary but legally binding agreements between a landowner and a designated 'responsible body,' such as a conservation charity, public body or similar, to conserve the natural or heritage features of the land. These can be used to secure the benefits delivered by BNG and other similar measures for the long term.

### 1 The Economics of Biodiversity: The Dasgupta Review (2021) –

<https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

2 Biodiversity Net Gain for local authorities – <https://www.local.gov.uk/pas/topics/environment/biodiversity-net-gain-local-authorities>



There are various other recent measures and funding mechanisms, such as the Nature for People, Climate and Wildlife policy paper [1], the Agriculture Act 2020 [2] (which is designed to reward farmers and land managers for producing the public goods set out in A Green Future - Our 25 Year Plan to Improve the Environment 2018 [3], including thriving plants and wildlife) and associated sustainable farming, local nature recovery and landscape recovery schemes, all of which are designed to redress the balance and incentivise nature recovery and regenerative land management.

Our AONB also participated in the government's Phase 1 Natural Environment Investment Readiness Fund (NEIRF) [4], securing funding to investigate how to effectively engage business and attract funding to support the Tamar Valley's nature-based services, initially focusing on important intertidal habitats. We know from our NEIRF 'Making the Case for Investment in the Tamar Valley's Nature Based Services' project [5] that the value of the Tamar Valley's biodiversity is approximately £2 billion.

In the context of the above and our own nature recovery planning, Tamar Valley AONB will seek to:

- Continue to utilise and maximise the value of our core grant funding for the benefits of nature recovery, alongside other key targets.
- Ensure that nature recovery is a priority focus for securing additional project funding from a range of external sources, working closely with local authorities, environmental and other partners.
- Continue to build on the learnings from the NEIRF programme and to explore opportunities for attracting and securing private-sector funding for nature recovery through emerging mechanisms (such as BNG, conservation covenant agreements, etc.) at local, regional and national levels.



South Hooe on the Bere Peninsula - one of the sites used to assess potential for investment in nature recovery © Barry Gamble

**1 Nature for People, Climate and Wildlife (2021) –**

**<https://www.gov.uk/government/publications/nature-for-people-climate-and-wildlife>**

**2 The Agriculture Act (2020) – <https://commonslibrary.parliament.uk/research-briefings/cbp-8702>**

**3 A Green Future: Our 25 Year Environment Plan to Improve the Environment (2018) –**

**<https://www.gov.uk/government/publications/25-year-environment-plan>**

**4 Natural Environment Investment Readiness Fund (2022) –**

**<https://www.gov.uk/government/news/50-projects-receive-up-to-100000-each-to-boost-investment-in-nature>**

**5 Tamar Valley AONB's Making the Case for Investment in the Tamar Valley's Nature Based Service's project (2021-2023) –**

**<https://www.tamarvalley.org.uk/making-the-case-for-investment-in-the-tamar-valleys-nature-based-services>**

## Nature recovery and landscape character

Landscape character, a defining principle of the AONB designation, is the distinct and recognisable pattern of features in the landscape that make one area different from another, including natural attributes, e.g. habitats. Landscapes that have a great variety of habitats are assumed to be richer in biodiversity and hence have a higher conservation value than homogeneous ones.

The character of the landscape across Devon and Cornwall is assessed, monitored and mapped using landscape character types (LCTs), each LCT sharing similar characteristics, including natural attributes. Eight LCTs are represented in the Tamar Valley AONB (see map opposite) from the open inland plateaux to the moorland fringe. The 2020 Tamar Valley Landscape Character Assessment [1] (covering the Tamara Landscape Partnership Scheme area [2] including the AONB) highlights landscape features related to biodiversity and habitats in each LCT, as well as providing guidelines for the protection, management and planning related to those features. It provides a useful overview of woodland cover, land use and semi-natural habitats, including highlighting the forces for change which directly impact on nature in the AONB.

## Nature recovery and planning

**The planning sector can play a key role in ensuring that development prioritises nature's recovery. Good development should conserve, restore and enhance priority habitats and ecological networks, secure the protection and recovery of priority species and identify opportunities for biodiversity net gain. Irreplaceable habitats are offered more robust protection, as they are technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity.**

The Tamar Valley Landscape Character Assessment highlights various local and national plans and policies which specify the requirement to preserve and protect our natural environment, including;

- The need to ‘...sustain local distinctiveness and character, and protect (and where possible enhance) Cornwall’s natural environment and assets according to their international, national and local significance.’ – The Cornwall Local Plan [3].
- The importance of ‘...protecting and enhancing valued landscapes, sites of biodiversity... and soils (in a manner commensurate with their statutory status or identified quality)’ and ‘...recognising the intrinsic character and beauty of the countryside and the wider benefits from natural capital and ecosystem services...’ – National Planning Policy Framework [4].
- The promise that the ‘distinctive characteristics, special qualities and important features of the natural environment of the Plan Area will be protected, conserved and enhanced.’ – Plymouth and South West Devon Joint Local Plan [5].

Neighbourhood Development Planning is the most significant legal mechanism through which town and parish councils can integrate nature recovery on a local scale [6].

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**1 Tamar Valley Landscape Character Assessment for the Tamara Landscape Partnership (2020) – <https://www.tamarvalley.org.uk/wp-content/uploads/2021/05/Tamar-Valley-LCA-report.pdf>**

**2 Tamara Landscape Partnership Scheme – <https://tamaralandscapepartnership.org.uk>**

**3 The Cornwall Local Plan (2016) – <https://www.cornwall.gov.uk/localplancornwall>**

**4 National Planning Policy Framework (2021) – <https://www.gov.uk/government/publications/national-planning-policy-framework--2>**

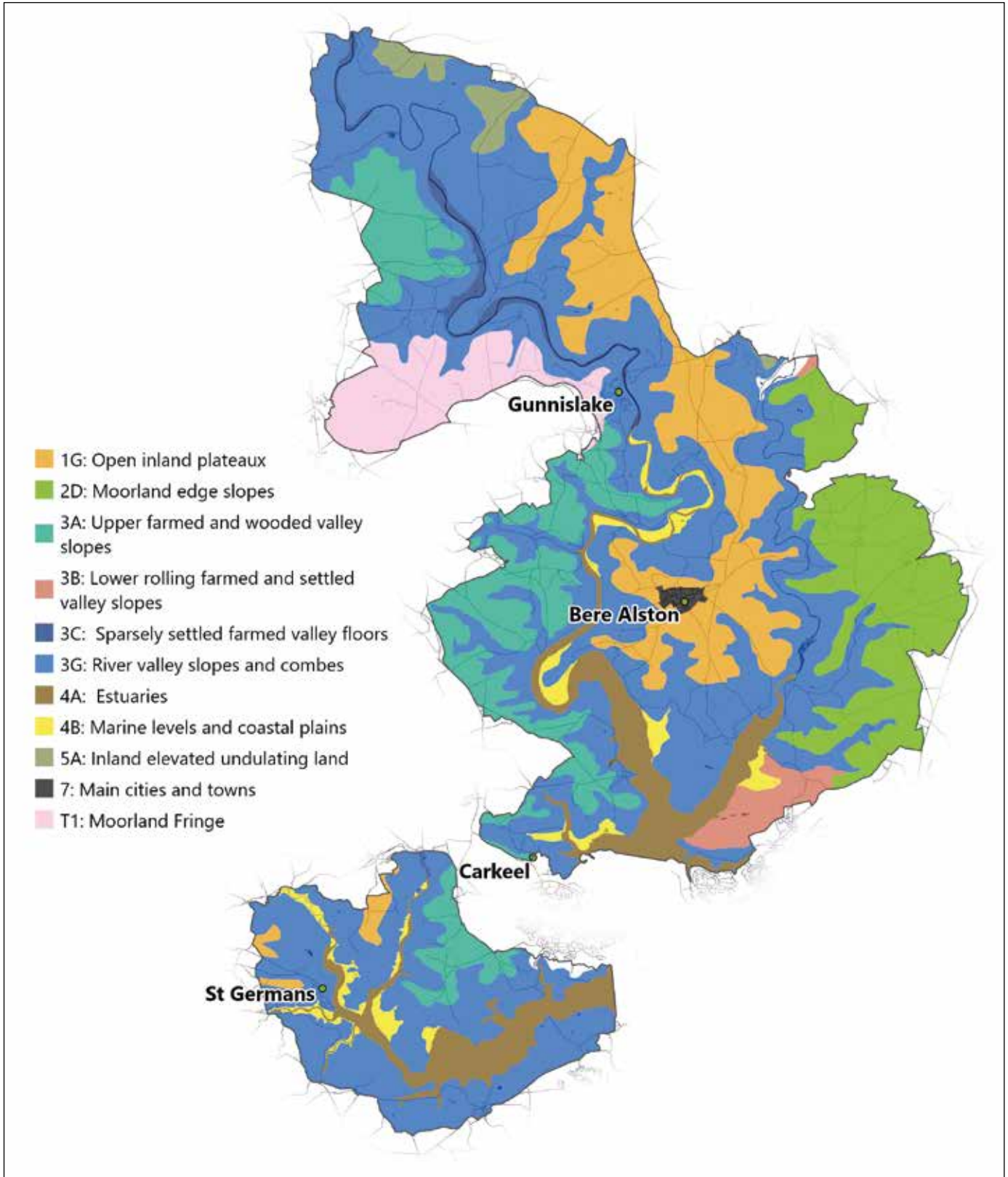
**5 Plymouth and South West Devon Joint Local Plan (2014-2034) –**

**<https://www.plymouth.gov.uk/plymouth-and-south-west-devon-joint-local-plan>**

**6 Neighbourhood planning – <https://www.gov.uk/guidance/neighbourhood-planning--2>**

## Landscape character types

### Tamar Valley Area of Outstanding Natural Beauty



Contains the following datasets:  
 Ordnance Survey data © Crown copyright and database right 2023  
 Cornwall Council data © Cornwall Council 2023



# The state of nature in the Tamar Valley AONB

The Tamar Valley is a complex and intricate mosaic of meandering estuaries and creeks, rolling pastureland, secluded wooded valleys, and a prominent granite ridge, including the natural domed granite outcrop and landmark, Kit Hill. Diverse habitats include tidal mudflats, saltmarsh, fen, grasslands, heath, hedgerows, orchards and ancient woodland. These habitats are home to tens of thousands of species, including many of national and international importance.



Canada geese arriving to overwinter in the Tamar Valley wetlands © Jan Simpson

# What nature recovery in the Tamar Valley AONB can look like



Artist's impression of the Upper Tamar 2023



Artist's impression of the Upper Tamar  
Enhanced Nature Recovery Network  
Artist: Phil Collins



# Tamar Valley AONB habitats

The state of diverse semi-natural terrestrial, freshwater and coastal habitats is essential to nature recovery in the Tamar Valley. The AONB contains 24 of the UK's 56 priority (and 65 Biodiversity Action Plan) habitats – habitats of high ecological value and of principal importance for the conservation of biodiversity across the country. Maintenance and restoration of these habitats is promoted through agri-environment schemes.

Natural England's national Priority Habitat Inventory (PHI) [1] is an important data source. It replaced Natural England's Biodiversity Action Plan (BAP) habitat inventory in 2012. However, the BAP habitats are still commonly referred to and BAP habitat descriptions are still in use [2].

Some information on Tamar Valley priority habitats is presented in the following pages. For more detailed information, please refer to the individual State of the Tamar Valley [3], Devon's State of Environment [4] and State of Nature Cornwall 2020 [5] reports. Information on the sensitivity of priority habitats to climate change is available in the Cornwall Climate Risk Assessment report [6].

## Priority/Biodiversity Action Plan habitats in the AONB

- |   |   |
|---|---|
| 1. Lowland mixed deciduous woodland <sup>1</sup>              | 13. Arable field margins <sup>2</sup>         |
| 2. Upland mixed ashwoods <sup>1</sup>                         | 14. Calaminarian grassland                    |
| 3. Upland oakwood <sup>1</sup>                                | 15. Lowland heathland                         |
| 4. Wet woodland <sup>1</sup>                                  | 16. Reedbeds                                  |
| 5. Wood-pasture and parkland <sup>1</sup>                     | 17. Lowland fens <sup>3</sup>                 |
| 6. Broadleaved, mixed and Yew woodland (lowland) <sup>1</sup> | 18. Rivers                                    |
| 7. Traditional orchards                                       | 19. Ponds <sup>3</sup>                        |
| 8. Hedgerows  | 20. Coastal saltmarsh                         |
| 9. Lowland meadows (neutral grassland)                        | 21. Intertidal mudflats                       |
| 10. Lowland dry acid grassland                                | 22. Estuarine rocky habitats                  |
| 11. Purple moor grass and rush pastures                       | 23. Seagrass beds <sup>4</sup>                |
| 12. Coastal and floodplain grazing marsh                      | 24. Blue mussel beds on sediment <sup>4</sup> |

### Notes:

- 1 BAP habitats 1 to 6 above are all deciduous woodland priority habitat (national Priority Habitat Inventory). Some of the deciduous woodland in the AONB are registered on the Ancient Woodland Inventory but ancient woodland is not a priority/BAP habitat in itself. Tamar Valley AONB coniferous woodland plantations are not priority/BAP habitat, however they do serve an ecological role within a habitat mosaic.
- 2 Where arable field margins are managed for wildlife they are classed as priority habitat.
- 3 Freshwater fens are included in Cornwall local habitat data but not in Devon data or national PHI data. Ponds are not listed in any of the datasets but do occur in the Tamar Valley.
- 4 Seagrass (*Zostera noltii*) beds and blue mussel (*Mytilus edulis*) beds were present in the Tamar and Lynher estuaries in 2010 but are not identified in current national or local datasets

1 Priority Habitat Inventory – <https://naturalengland-defra.opendata.arcgis.com/datasets/priority-habitat-inventory-south-england/explore?location=50.113385%2C-2.910390%2C7.77>

2 Biodiversity Action Plan habitats – <https://jncc.gov.uk/our-work/uk-bap-priority-habitats>

3 State of the Tamar Valley 2018/19 report –

<http://tamarvalley.org.uk/wp-content/uploads/2020/11/State-of-AONB-2018-final-compressed.pdf>

4 Devon's State of Environment Report 2018 –

<https://www.devonlnp.org.uk/devons-environment/state-of-environment-report>

5 State of Nature Cornwall 2020 –

<https://www.cornwallwildlifetrust.org.uk/sites/default/files/2021-05/State%20of%20Nature%20Cornwall%202020%20Report.pdf>

6 Cornwall Climate Risk Assessment reports – <https://letstalk.cornwall.gov.uk/cornwall-climate-report>



The AONB landscape is not homogeneous – designated ecological sites are great examples of habitat mosaics, places where different habitats are found close together and where biodiversity can flourish. Habitat creation and management should seek to maintain this diversity – that’s the best for wildlife.

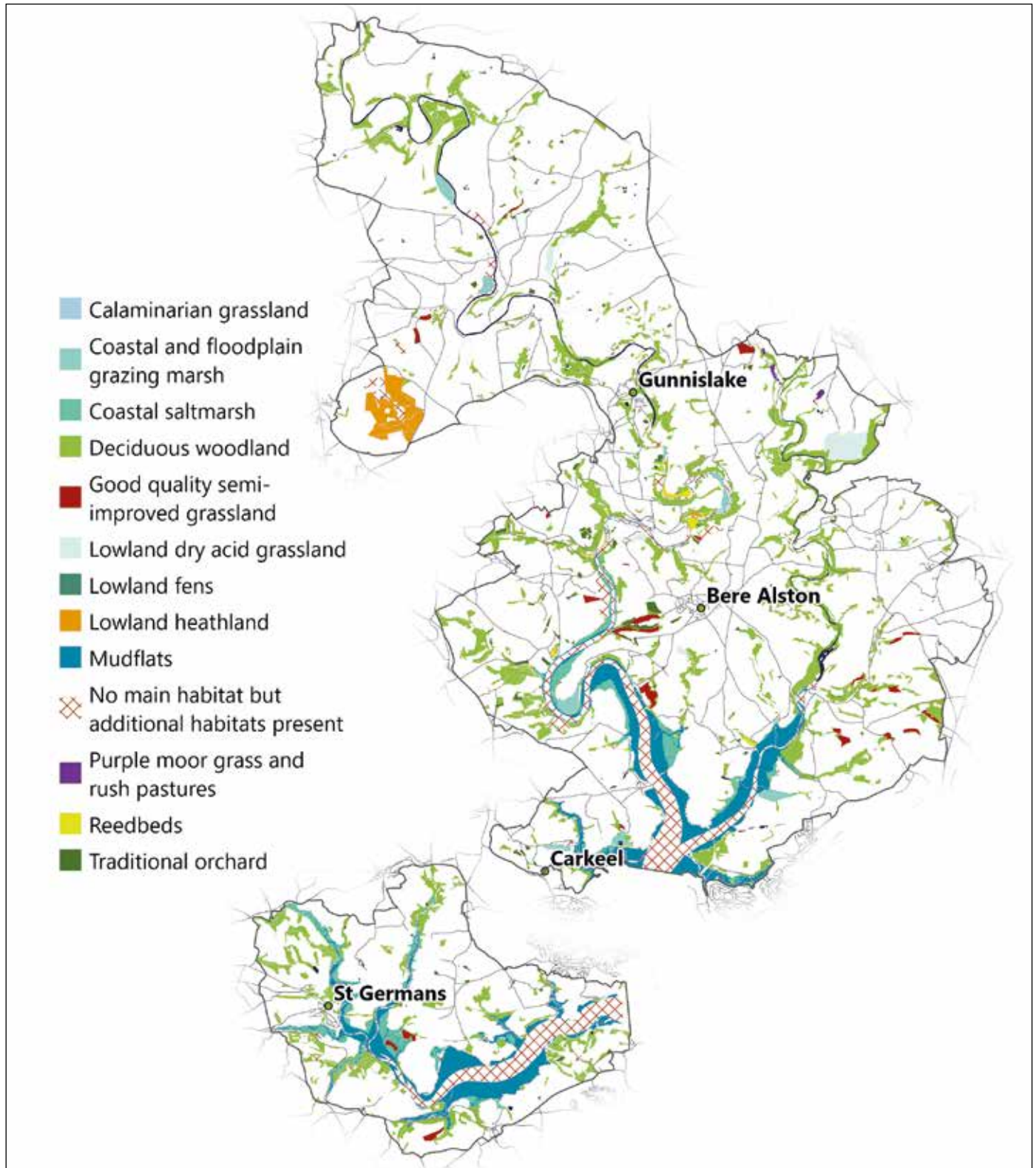


**The Tamar-Tavy Site of Special Scientific Interest (SSSI) and adjacent habitats create a diverse mosaic in the landscape © Lesley Strong**

## Mapping priority habitats

National and local habitat maps illustrate the existing network of priority habitats, often associated with river and stream valleys across the Tamar Valley AONB landscape. Please note that, hedgerows and arable field margin priority habitats have not been mapped.

### National habitat data

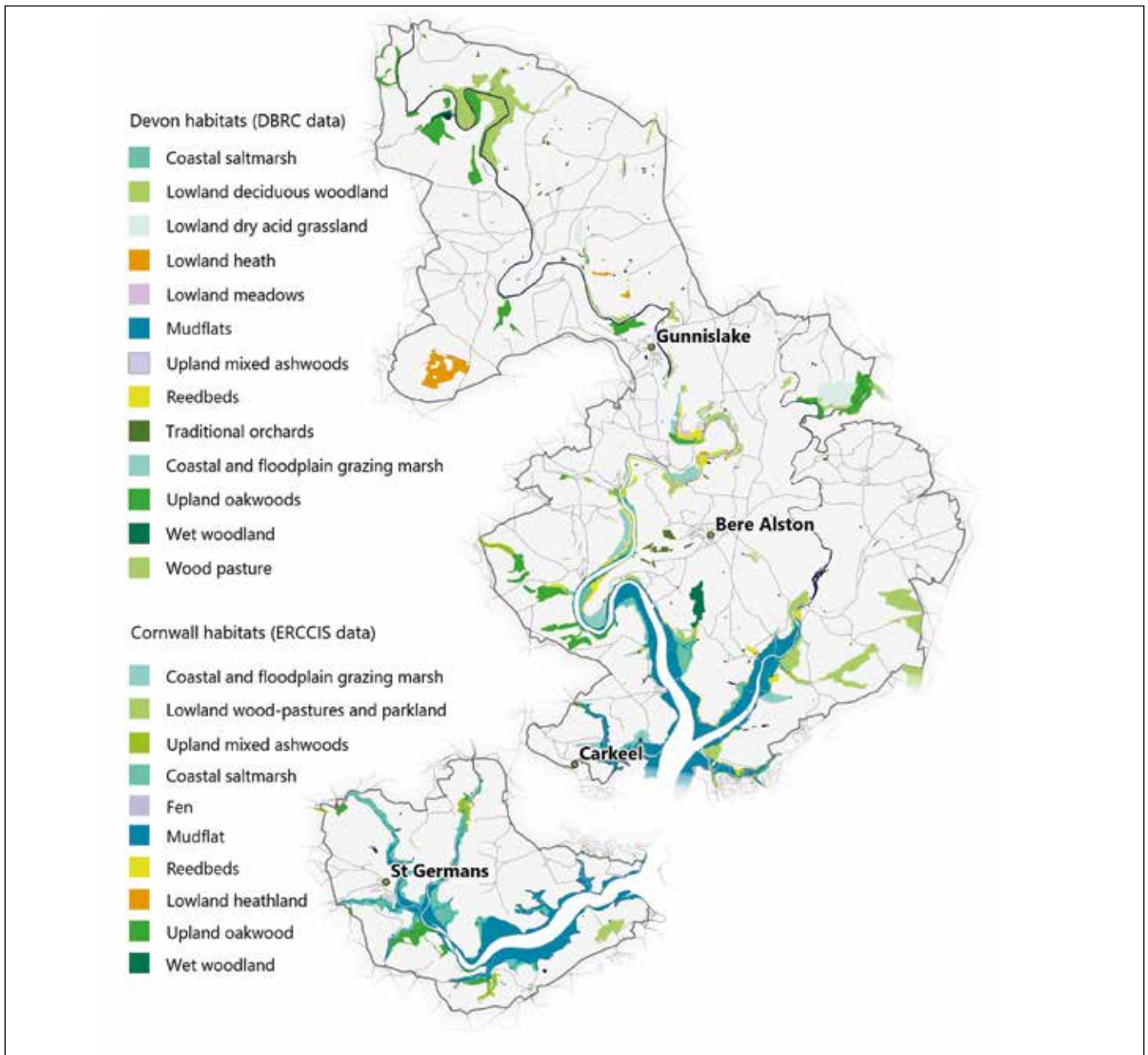


Contains the following datasets:  
 Ordnance Survey data © Crown copyright and database right 2023  
 Natural England data © Cornwall Council 2023



Mapping of priority habitats differs when using currently available national and local data. Different habitat categories are used and, in the case of local data, a more detailed breakdown of woodland types is provided (based on BAP woodland habitat categories). Habitat occurrence and coverage may also differ between national and local datasets, e.g. lowland heathland.

## Local habitat data



**Contains the following datasets: Devon habitats data © Devon Biodiversity Records Centre (cannot be copied, republished, or used for commercial purposes without prior permission). Cornwall habitats data © Environmental Records Centre for Cornwall and the Isles of Scilly. Ordnance Survey data © Crown copyright and database right 2023**

Mapping will be a powerful tool to inform the effective delivery of Local Nature Recovery Strategies in Devon and Cornwall. These maps will inform the creation of Nature Recovery Network corridors, identifying possible locations where new suitable habitats can be created and ecosystem services provided, while at the same time taking certain constraints into account (such as current land use or proximity to Scheduled Monuments). Lagas [1] is currently the primary mapping tool for communicating Cornwall's LNRS (developed through the LNRS pilot project). Devon is currently developing its own mapping tool. We have encouraged collaboration to ensure these tools are of use in cross-county areas like the Tamar Valley AONB.

## Woody habitats – deciduous woodland, hedgerows and traditional orchards

The Tamar Valley AONB's woody habitats cover a spectrum from ancient woodland to small copses, coniferous plantation to wet woodland and traditional orchards, although not all are considered priority habitats. Trees outside these habitats are also significant ecological features in the wider AONB landscape, in particular ancient and veteran trees and those located in species-rich hedgerow trees and alongside riverbanks.

### Deciduous woodland

#### State

- 1,960ha deciduous woodland priority habitat (9.97% AONB cover).
- 3,668ha total woodland (deciduous/broadleaved and coniferous), making it one of the most wooded designated landscapes in the south west, concentrated along the steep river valleys and on estate land. Please note, other data sources give higher total woodland cover of 3,989ha including 2,900ha broadleaved and 1,089ha coniferous.
- Deciduous (broadleaved) habitat is located in all four ecological SSSI and in 25 of the AONB's 33 County Wildlife Sites, including upland oak wood woodland and lowland mixed deciduous woodland.
- Sustainably managed mixed deciduous and coniferous forests can provide fuel, timber, carbon storage, biodiversity and ecosystem services in the Tamar Valley.
- Woodland mosaic features are important for Tamar Valley species, such as the nightjar which occur in open woodland with clearings and in recently-felled conifer plantations and on heath.
- AONB woodlands may be managed under Higher Level Stewardship or Countryside Stewardship agreements or fall within Forestry Commission managed woodland.
- Tamar Valley Woodland Creation Collaboration group (hosted by AONB) was established in 2022 to ensure the effective delivery of various tree planting schemes by partner organisations and targeted action to maximise uptake and connectivity (see page 80).

#### Pressures

- Climate change sensitivity low to medium. Increased tree stress and change in species composition within woodlands with altered seasonal weather patterns, increase in summer drought, more frequent storm events (impacting mature or veteran trees and canopy cover) and an increased impact of both insect pests and diseases, with implications for woodland creation and management.
- Pests and pathogens lead to loss of woodland cover, health and diversity. Trees stressed by drought are often more susceptible to insect pests and disease; however, effects may be complex – for example the spread of ash dieback may be limited by high temperatures.
- Invasive non-native species spread is of concern with resulting woodland biodiversity loss (trees and ground flora), habitat degradation and pathogen spread, e.g. deer, squirrels, Himalayan balsam, laurel and rhododendron (the main threat to woodland ecology as a host to *phytophthora pathogens*).
- Fragmentation of deciduous woodland habitat, e.g. coniferous plantations within woodland, although including some coniferous species in a woodland mosaic has biodiversity benefits.
- Division of land holdings and former estates, resulting in potential changes in farm and woodland management, including a decline in traditional woodland management, leading to a reduction in the species and age diversity.
- Initially slow local uptake of some current woodland planting schemes and uncertainty regarding support and financing for subsequent management.
- Insufficient supply of local root stock varieties for ambitious woodland creation targets.
- Access to woodland habitat for health and wellbeing is essential but has to be managed to preserve condition of, and minimize disturbance to, habitat.



## Hedgerows

### State

- Hedgerow map not available for the AONB.
- Extensive and largely intact network of hedgerows and traditional Cornish and Devon hedgebanks across the whole AONB landscape, many dating back to medieval and some to prehistoric times.
- Most important existing terrestrial priority habitat for ecological connectivity in the AONB and amongst the most important wildlife features of farms – a single hedge can support well over 2,000 species, including priority species, such as the hedgehog and common toad, plus rare species such as bastard balm. They are an important linear feature for commuting bat species, particularly where rows of hedge trees are present.
- Tamar Valley AONB Significant Hedge Survey (2012) [1] found a high proportion of hedges surveyed to be species-rich.
- Cordiale Project (2010-2013) [2] explored creation and development of a viable new market for Tamar Valley timber and woodfuel, especially from hedges, to improve management with associated biodiversity, economic and landscape gains.

### Pressures

- Climate change sensitivity low. Impacts similar to deciduous woodland. Drought stress may lead to dieback of hedgerow trees, e.g. ash dieback and increased susceptibility to pests and disease. Wetter winters may cause erosion and collapse of hedgebanks. Altered weather may impact management approach, e.g. restrict access for winter trimming which is preferable to prevent loss of berries (particularly hawthorn and blackthorn) for birds, and longer growing season may cause more intensive management. Indirect climate effects, e.g. conversion of pasture to arable or intensification of existing arable, leading to the loss of field margins and buffer strips adjacent to hedgerows, pesticide drift and nutrient enrichment.
- Lost hedgerow and standard trees not replaced (replanted or rejuvenated by sensitive management).
- Survey of hedgerow management by flailing indicated that some areas, such as the eastern moorland fringe and farming plateaux, show a much higher occurrence of flailing compared to other areas of the AONB.
- Insufficient management to maintain high quality hedgerow habitat, including inappropriate cutting regimes and neglect, with erosion of banks and walls and development of gaps. Lack of management incentives, as for woodland.
- Use of herbicides, pesticides and fertilisers right up to the bases of hedgerows can be an issue in arable fields.

## Traditional orchards

### State

- 89ha (0.45% AONB cover) and coverage decreasing.
- Incomplete knowledge about the current state and condition of traditional orchard habitat in the AONB.
- Traditional orchard priority habitat is located in four of the AONB's 33 County Wildlife Sites.
- Traditional orchard biodiversity value is often due to the presence of unploughed, semi-natural grassland and other habitats, such as scrub, hedgerows and ponds, providing both food and shelter to thousands of species, including the greater horseshoe bat. They are an incredibly valuable habitat for our pollinators.
- Old apple trees can show veteran characteristics comparatively early in their life span of approximately 100 years.
- Majority of all traditional orchards identified in the Tamar Valley are located on the farmland plateaux and isolated sites exist across the whole AONB area and in the wider region.
- Apple and cherry trees once a familiar sight in the Tamar Valley – each parish, and indeed individual orchards, cultivated their own distinctive apple varieties. Surviving habitat contains increasingly rare Tamar Valley varieties.
- Relatively high traditional orchard densities occur in the traditional market gardening region of the Tamar Valley, but a comprehensive survey of the 102 traditional orchards remaining in the AONB in 2010-2011 showed the habitat much reduced from historic extent [3]. The People's Trust for Endangered Species is currently updating its orchard survey data and the result will likely be more accurate than currently available local or national datasets.
- Of the remaining 94ha of traditional orchards identified in 2018, 30ha were assessed as being actively or part managed based on the area of land in Environmental Stewardship for management of BAP priority orchards (Natureal England, 2018).
- New orchards are being created at the moment through various schemes, but much of the fruit is not harvested.

1 Tamar Valley AONB Significant Hedge Survey 2013 – [https://www.tamarvalley.org.uk/wp-content/uploads/2020/06/Hedge-report\\_final.pdf](https://www.tamarvalley.org.uk/wp-content/uploads/2020/06/Hedge-report_final.pdf)

2 Cordiale Project (2010-2013) – <https://www.tamarvalley.org.uk/projects/cordiale-woodfuel>

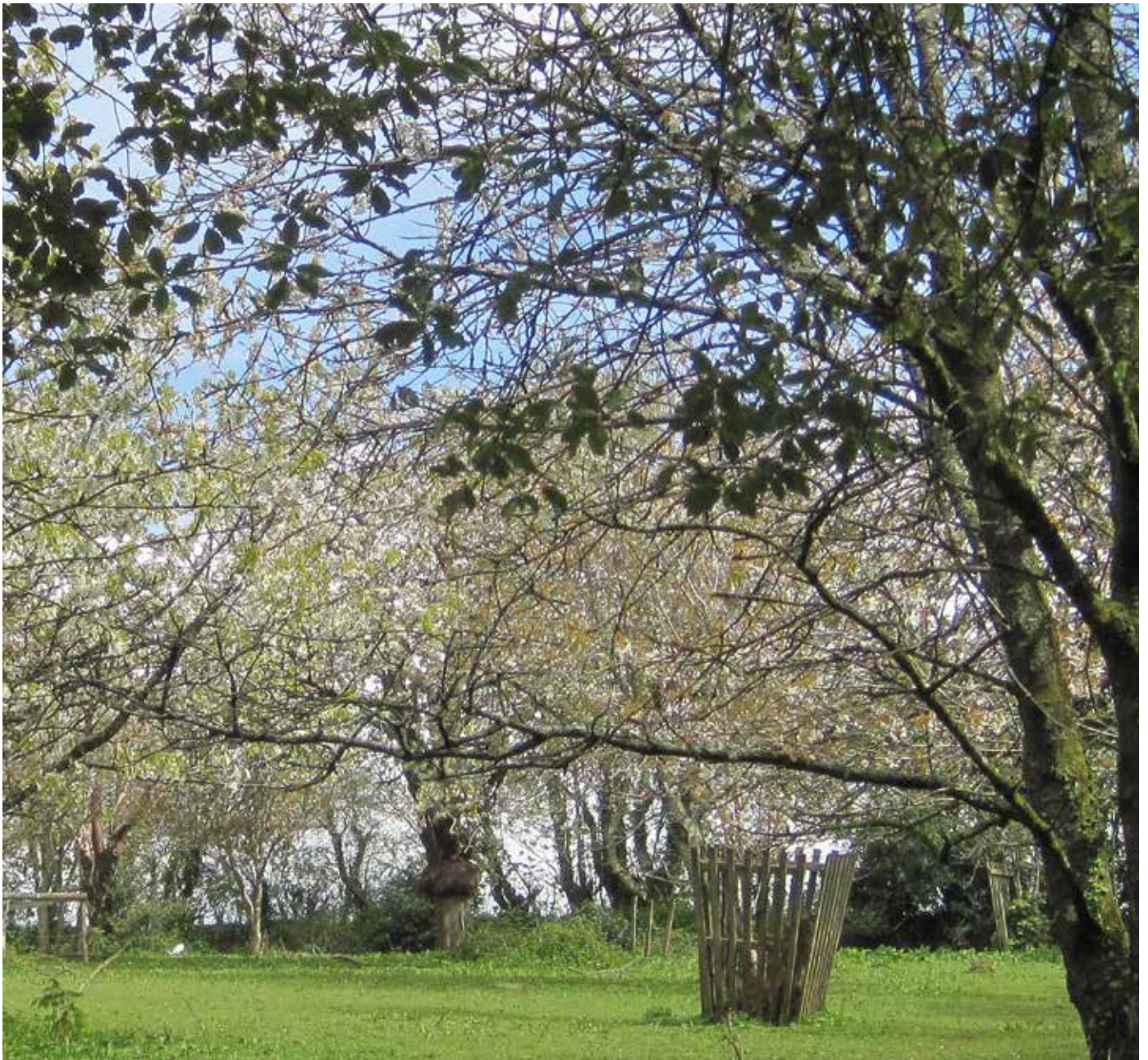
3 Tamar Valley Orchard Survey 2010-2011 (Peoples Trust for Endangered Species) – <https://www.tamarvalley.org.uk/orchards>



### Traditional orchards

#### Pressures

- Climate change sensitivity low. Impacts similar to deciduous woodland. Increase in vineyards in the Tamar Valley and potential increased conversion to more economically viable fruit crops currently grown in more southerly locations, or conversion to more intensive methods of production, with wider impacts on associated species relying on orchard habitat. Also, summer drought stress, problems caused by winter waterlogged soil, increased pest and disease damage.
- Habitat derived from land management practices which are hugely beneficial for wildlife but are rapidly disappearing. Lack of appropriate management or neglect and abandonment, including on the edges of farmsteads and villages. Majority of sites surveyed in 2010-2011 showed no sign of recent management, with some at risk due to excessive scrub growth or lost trees not being replaced.
- Surviving traditional orchards planted around the same time, leading to trees ageing and dying within a short time of each other.



Tamar Valley cherry orchard at Bohetherick © Lesley Strong



## Ancient woodland, woodland pasture and parkland, ancient and veteran trees

Ancient woodland [1] in particular supports more species than any other land-based habitat in the UK and has great current, or potential, biodiversity interest in the Tamar Valley - it takes hundreds of years to establish and is defined as an irreplaceable habitat. There is a distinction between our priority habitat (e.g. deciduous woodland), which is related to species composition, and ancient woodland, which is related to longevity. The irreplaceable qualities of ancient woodland do give it higher status under the National Planning Policy Framework [2] than most other habitat types, but it is not guaranteed protection.

The Tamar Valley contains 367ha of Ancient Semi-Natural Woodland (ASNW) [3] and 1257ha of Plantations on Ancient Woodland Sites (PAWS) [4] on the Ancient Woodland Inventory [5]. This is located in 37 named sites (1562ha) and additional unnamed woodland parcels (62ha), the vast majority located along our steep river valleys. It is possible to have an ASNW felled and replanted with a broadleaf monoculture, which is ecologically poorer. Ancient woodland features in all four ecological SSSI and in 19 of our 33 County Wildlife Sites. Bradford Wood CWS, situated on the Cornwall bank of the River Tamar, includes several hundred hectares which have been identified as ancient woodland habitat – the second largest block in Cornwall.

Woodland pasture occurs as a remnant of ancient wood pasture and also occurs as a planned, historic parkland component of country estates including, for example, veteran oaks which have significant conservation value for their old-growth features, deadwood and fungi and invertebrate diversity. The low-density canopy of wood pasture gives opportunities for species that could not survive in woodland shade. Some wood pasture and parkland priority habitat features in the AONB's local habitat data, but wood pastures identified as ancient and historic parkland do not appear on the Ancient Woodland Inventory, because their low tree density does not register as woodland on historic maps. These sites often form habitat mosaics, with scrub and denser woodland groves, to more open grassland or heathland with scattered trees [6]. Natural England's Wood Pasture and Parkland Inventory (includes ancient sites) is available on the Magic map system [7], but there is a need to provide comprehensive local data on the extent of wood pasture and its wider habitat.

Ancient and veteran [8] trees can be individual trees or groups of trees within wood pastures, historic parkland, hedgerows, orchards, parks or other areas. They are often found outside ancient woodlands. They are also irreplaceable habitats, but only 5% of these invaluable trees have been identified and registered on the Ancient Tree Inventory [9] which allows them some protection under planning regulations. There are an estimated two million ancient and veteran trees in the UK.

The AONB Partnership supported the delivery of Plantlives Building Resilience in South West Woodlands project (2019-2023) [10], which shone a light on temperate rainforest, including ancient woodland habitat, due to its importance for a number of lichen and bryophyte species that are rare or absent elsewhere in the UK and Europe. Five bryophyte and 65 lichen indicator species for temperate rainforest have been recorded within the AONB boundary. While there are no species that the Tamar Valley is specifically important for, as they also occur elsewhere, there are sites within the Tamar Valley that have species records of interest. Diverse fern communities are also a feature of our ancient woodlands.

1 Ancient woodland (Woodland Trust) – <https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/habitats/ancient-woodland>

2 National Planning Policy Framework (2021) – <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

3 Ancient semi-natural woodland – [http://www.countrysideinfo.co.uk/woodland\\_manage/oldwood2.htm](http://www.countrysideinfo.co.uk/woodland_manage/oldwood2.htm)

4 Plantations on ancient woodland sites – <https://www.forestresearch.gov.uk/research/lowland-native-woodlands/restoration-of-lowland-plantations-on-ancient-woodland-sites-paws>

5 Ancient Woodland Inventory – <https://www.data.gov.uk/dataset/9461f463-c363-4309-ae77-fdcd7e9df7d3/ancient-woodland-england>

6 Wood pastures identified as ancient and historic parkland – <https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/habitats/wood-pasture-and-parkland>

7 Magic map (Defra) – <https://magic.defra.gov.uk>

8 Ancient and veteran trees – <https://www.ancienttreeforum.org.uk/ancient-trees/what-are-ancient-veteran-trees>

9 Ancient Tree Inventory – <https://ati.woodlandtrust.org.uk>

10 Building Resilience in South West Woodlands (Plantlife) – <https://www.tamarvalley.org.uk/building-resilience-in-south-west-woodlands-2>





**Ancient and veteran trees like this magnificent oak provide habitat for many other species. For example, dead wood in old trees is important for invertebrates, lichens and fungi, leading to a situation where ancient and veteran trees can be the only habitat for those species in the wider landscape. © Lesley Strong**



## Tree pathogens and disease

### Plant disease

Insect pests and bacteria and fungi pathogens are causing significant damage to our trees and woodlands. Diseases such as ash dieback and *Phytophthora* infections are threatening the resilience of our woody ecosystems and native species, as well as causing economic losses for the forestry, timber and plant-based industries. Climate change is increasing vulnerability to disease. Woodland managers, landowners, tree nurseries and the forest industry are urged to be vigilant regarding biosecurity to control the spread of disease.

### Ash dieback

Ash is one of our most useful and versatile native tree species and the second most common hedgerow tree in the AONB, providing valuable habitat for a wide range of dependent species. Ash dieback (also referred to as 'Chalara') is a highly infectious fungal disease that is threatening to wipe out over 90% of ash trees. Ash trees showing ash dieback tolerance were tagged on Antony Estate in 2015, as part of the national Living Ash Project [1] (now in its second phase and due to end August 2024). The projects aim is to identify trees with a high degree of tolerance and produce seed for replanting.

The Tamar Valley AONB is a member of the Devon Ash Dieback Resilience Forum [2] (hosted by Devon County Council), a group of people representing different organisations and communities that share common interests in trees, the wildlife they support and the risks posed by ash dieback to people and the environment. The Devon Hedge Group [3] also promotes good management practices to keep our hedgerows and trees healthy. Devon Wildlife Trust's Saving Devon's Treescapes project [4] is combatting the effects of ash dieback by planting thousands of native trees in and around local communities to help to create wilder and greener places that will be more resilient to climate change. Devon Local Nature Partnership is currently developing a county wide Devon Tree and Woodland Strategy [5] which will provide support and guidance to increase woodland cover and resilience across the county and will feed into the Devon Local Nature Recovery Strategy.



Ash dieback, a sadly familiar sight in the Tamar Valley AONB

© Rob Wolton, Devon Hedge Group

1 Living Ash Project – <https://livingashproject.org.uk>

2 Devon Ash Dieback Resilience Forum – <https://www.devonashdieback.org.uk/who-we-are>

3 Devon Hedge Group – <https://devonhedges.org>

4 Saving Devon's Treescapes project – <https://www.devonwildlifetrust.org/saving-devons-treescapes>

5 Devon Tree and Woodland Strategy – <https://www.devonlnp.org.uk/devon-tree-and-woodland-strategy>



## Grassland and field margins

Tamar Valley grassland priority/BAP habitats are fragmented in contrast to species-poor improved grassland which covers almost a half of the AONB. Species-rich neutral grassland is now rare within the AONB, largely confined to roadside verges and traditional orchards, with the notable exception of Sylvia's Meadow SSSI, a 4.6ha site managed (in favourable condition) by Cornwall Wildlife Trust. It's an example of unimproved herb-rich pastureland containing some rare plant species and seven species of orchids, including the lesser butterfly-orchid and heath spotted-orchid. Arable field margins are herbaceous strips or blocks around arable fields – where managed for wildlife they are classed as a priority habitat.

### Lowland dry acid grassland

#### State

- 108ha (0.55% AONB cover).
- Number of mostly small sites, the largest area in the Grenofen & West Downs SSSI, on the moorland fringe bordering Dartmoor National Park (favourable condition, although a high condition risk was identified here when reassessed in 2014).
- Lowland acid grassland is located in two SSSI and two County Wildlife Sites (CWS) including Kit Hill Country Park and CWS, where found in a heathland and scrub mosaic.
- Botanically important, supporting hugely diverse plant communities from the more common to nationally scarce and rare species.
- Incomplete knowledge about the current extent and condition of lowland dry acid grassland habitat in the AONB.

#### Pressures

- Climate change sensitivity low. In areas with rapid drainage or thin soils and where growth is restricted by soil chemistry, drought may lead to more bare ground and higher surface temperatures. Increased fire risk.
- Fragmentation of habitat.
- Agricultural intensification by use of fertilisers, herbicides and other pesticides, liming, reseeded or ploughing for arable crops can threaten.
- Lack of management leading to rank overgrowth, bracken and scrub encroachment.

### Purple moor grass and rush pasture

#### State

- 6.4ha (0.03% AONB cover).
- A small area of priority habitat located on the eastern side of the AONB.
- Incomplete knowledge about the current extent and condition of purple moor grass and rush pasture habitat in the AONB.

#### Pressures

- Climate change sensitivity medium. A moist grassland habitat, sensitive to climate change related alteration in soil moisture with changing seasonal weather patterns, precipitation and temperature, e.g. dry summers may lead to changes in vegetation communities.
- Encroachment and fragmentation of habitat.

**Note: Calaminarian grassland priority habitat, rare in the AONB, is not 'grassland' as we generally consider it, rather it is typified by open structured plant communities, composed of ruderal/metallophyte species of lichens, bryophytes and vascular plants, including genetically adapted races of species. Associated with manmade substrates including artificial mine workings and spoil heaps, there are some notable examples in the Tamar Valley and Area 10 of the Cornwall and West Devon Mining Landscape World Heritage Site.**



Wild flower field margin created as a corridor for the heath fritillary butterfly near Lockett © Martin Howlett





### Lowland meadow

#### State

- Highly fragmented. A few sites remaining in the AONB (local habitat data), including a parcel near Gunnislake which may be an important greater horseshoe bat foraging area.
- Absent in current national Priority Habitat Inventory data for the AONB – small parcel of lowland meadow (1.87ha) located on the farming plateaux in 2011 was reclassified as traditional orchard (Natural England, 2018).
- Similar flower-rich grassland may be associated with traditional orchards, roadside verges and cemeteries.
- Lowland meadows and species-rich grasslands will have thousands of plants flowering together, providing food on a huge scale to many thousands of pollinators.
- Regionally, conservation efforts centre around restoration and recreation projects and the provision of advice and information to landowners.
- Incomplete knowledge about the current extent and condition and extent of lowland meadow habitat in the AONB.

#### Pressures

- Climate change sensitivity low. Key plants and their associated species may be lost, unable to thrive with changes in weather, leading to habitat change. A mismatch between flowering and pollination timings may lead to a decrease in some plants.
- Agricultural improvement (application of fertilisers and pesticides). Agricultural intensification caused by pressure to grow more food may reduce incentive to recreate lowland meadow habitat.
- Lack of management – abandonment leading to rank overgrowth, and scrub encroachment.

### Other species-rich grasslands

#### State

- Some good quality semi-improved grassland habitat present in AONB – not a priority habitat but has naturally occurring flora and increased species richness and is usually under sympathetic management with its ecosystem processes and biodiversity largely intact.
- Approximately twelve County Wildlife Sites contain unimproved or semi-improved grassland.
- Opportunities to collaborate - local community interest in creation of species-rich grassland through the Meadow Makers Network [1]. Plantlife [2] have supported new meadow creation in the Tamar Valley AONB.

#### Pressures

- As for lowland meadow above.

### Arable field margins (managed for wildlife)

#### State

- Habitat coverage map not available for the AONB. 3336ha of arable and horticulture land cover in the AONB
- Incomplete knowledge about the current extent of habitat in AONB (e.g. managed under Countryside Stewardship).
- Enhancing the biodiversity potential of this marginal arable land by creating and extending buffer zones adjacent to boundary hedges and ditches would be a significant contribution to the nature recovery and connectivity in the AONB and beyond.
- Where present, field margins managed for wildlife will buffer our hedgerows and ditches from farm operations, providing a greater range of food resources, shelter and breeding habitats for many species, including the harvest mouse. Insects living in these strips may include crop pollinators and predators of crop pests and are also a food source for birds and small mammals.

#### Pressures

- Climate change sensitivity low. Dry summers could lead to changes in community composition in permanent field margins, as well as an increase in the area of bare ground. High temperatures may increase the likelihood of mismatch between flowering plants and pollinator insect species in arable field margins managed for wildlife.
- Agricultural improvement (application of fertilisers and pesticides). Agricultural intensification caused by pressure to grow more food may reduce incentive to make space to manage arable field margins for wildlife.

1 The Meadow Makers' Network – <https://forum.meadowmakersnetwork.org.uk/about>

2 Plantlife Making Meadows – <https://www.plantlife.org.uk/uk/support-us/making-meadows>

## Lowland heathland

Lowland heathland is an important priority habitat in the AONB, home to distinct plant species communities (predominantly heather) and a variety of other associated species, including pollinators and priority species such as the adder. Heathland stores more carbon than modern agricultural landscapes but less than peatlands, salt marsh and old woodlands. Protecting established habitat is important for biodiversity, as well as the carbon it holds, as both may have taken centuries to accumulate.

### Lowland heathland

#### State

- 115ha (0.59% AONB cover).
- On a regional scale, lowland heathland is located on the granite ridge that connects Dartmoor on our eastern border and Bodmin Moor to the west of the AONB.
- Features in seven County Wildlife Sites (CWS).
- Largest expanse of lowland heathland is on Kit Hill Country Park and CWS. Despite most of the area being converted to agricultural land, lowland heathland on Kit Hill escaped reclamation due to the site's steep and exposed position and a legacy of uneven terrain from mining heritage. Site in good condition, managed under Higher Level Stewardship for wildlife and public access, by grazing mostly and some swaling and cut and burn of the gorse plus bracken control.
- Additional habitat nearby at Hingston Down managed by owner to prevent scrub and cotoneaster encroachment in line with a site BAP.
- Devon Great Consols another important area is where early succession heathland exists as part of a mosaic of habitats on older waste heaps and contaminated land. Okeltor Mine CWS (partly within the Tamar-Tavy Estuary SSSI) actively managed with encroachment controlled, mainly for its interest as a scheduled monument site.
- Incomplete knowledge about the current condition and full extent of lowland heathland in the AONB.

#### Pressures

- Climate change sensitivity medium. Drier conditions in summer or higher temperatures could lead to an increased fire risk with associated carbon and biodiversity loss. Longer growing seasons may favour grasses or bracken over heather vegetation, leading to changes in vegetation composition.
- Nutrient enrichment – atmospheric deposition of pollutants could result in nutrient enrichment, although not such a concern in Tamar Valley.
- Vulnerable to encroachment by grassland, scrub and woodland.
- High level of public access on important sites like Kit Hill Country Park and CWS (associated heathland species, especially breeding birds, are vulnerable to disturbance from recreation).
- The expansion of quarrying would likely impact this habitat.



**Kit Hill Country Park, Local Nature Reserve and County Wildlife Site © Tobi O'Neill/TON Drone Services. It is an important cultural and heritage asset, is popular for access to nature and essential for health and wellbeing of the local community.**



## Wetland and coastal habitats

**The Tamar Valley AONB Partnership, working with key organisations, landowners and the community is supporting the restoration of intertidal and wetland habitat in the Tamar estuary including at Calstock and South Hooe. The National Trust has also created intertidal habitat at Cotehele. Together, this complementary work will bring real nature recovery gains at a landscape scale.**

The Tamar Valley's wetland and coastal habitats typically occur as habitat mosaics, including saltmarsh, reedbeds, grazing marsh, fens alongside fringing ancient woodland and wet woodland. They are a magnet for wildlife due to their dynamic and productive habitats and are of particular conservation importance for the breeding wading birds they support, in addition to abundant and diverse plant and invertebrate communities.



**Newly-created intertidal and wetland habitat at Calstock. This Environment Agency flood defence work reconnected the river with its floodplain, recreating intertidal habitat in the Tamar estuary. This is anticipated to help host a wealth of wildlife, and will be important for fish, mammals, invertebrates and birds © Fotonow**

## Coastal saltmarsh

### State

- 268ha (1.36% AONB cover).
- Irreplaceable habitat which makes a vital contribution to the structure and function of the estuaries. Noted in all estuary designations.
- Areas of saltmarsh communities border the tidal mudflats and occur as far upstream as Cotehele Quay.
- Noted habitat in the Tamar-Tavy SSSI and Lynher SSSI citations.
- Within the Tamar-Tavy Estuary SSSI, field observation in 2010 indicated one possible area of saltmarsh accretion opposite Weir Quay – no follow up surveys since.
- Recent projects have reconnected some of the floodplain to the estuarine river at Cotehele and Calstock, with intention of reinstating the saltmarsh habitat which originally existed, before it was reclaimed through embankment and draining.
- Natural expansion of the saltmarsh can occur where *Spartina* spp. can become established on the mudflat margins, as observed at Bere Ferrers in the past.
- Traditionally grazed by livestock, which has a marked effect on the structure and composition of saltmarsh communities.
- Historically, due to the conversion of grazing marsh to arable land, there is a lack of upper marsh and transitional zones, so sites with full zonation should be a priority for conservation.
- Highly effective carbon stores, as well as helping coasts adapt to future climate change.
- Incomplete knowledge of current condition and level of active management of the existing saltmarsh habitat in the AONB.

### Pressures

- Climate change sensitivity high. Directly threatened by sea-level rise with the total area of habitat likely to be significantly reduced, unless sediment loading keeps pace with sea level rise or where saltmarsh can migrate inland.
- Where erosion occurs at the seaward margin in higher-energy estuary locations, the marsh profile steepens and without significant sediment transfer to the higher reaches of the marsh, the marsh extent decreases. Reduced supply of sediment needed for accretion may be affected by coast protection works, dredging of shipping channels, etc.
- Fragmentation of habitat – piecemeal, smaller-scale impacts may occur, e.g. boat access.
- Other human influences, e.g. waste tipping, pollution, sewage discharge.

## Coastal and floodplain grazing marsh

### State

- 87ha (0.44% AONB cover).
- Largest examples in Cornwall within the Tamar floodplains, where pasture or meadow in low-lying land is periodically inundated, often with drainage ditches containing standing water.
- For the most part, agriculturally improved, limiting species richness.
- Incomplete knowledge about the current condition of habitat.

### Pressures

- Climate change sensitivity medium. Sea-level rise will affect coastal grazing marsh, with a shift from freshwater to brackish habitat, and erosion. Summer drought is likely to damage soil structure. Extreme summer flooding may disrupt nesting. Winter flooding may change invertebrate communities to the detriment of feeding birds. Any change in inundation pattern is likely to change the mosaic of wetland vegetation communities present.
- Vulnerable to spread of invasive non-native species, e.g. giant hogweed, Himalayan balsam, Japanese knotweed, leading to habitat degradation and biodiversity loss. Future climate-related risk with potential increase in exposed mud further accelerating erosion and potentially making marshes susceptible to invasive plants.
- Tamar Valley Invasives Group controlling giant hogweed along a 45 mile length of Rivers Tamar and Lyd (riparian habitat and riverbanks) – numbers much reduced but estuarine floodplains remain stronghold.



## Reedbeds

### State

- 40ha (0.2% AONB cover).
- Noted habitat in the Tamar-Tavy SSSI and Lynher SSSI citations.
- Incomplete knowledge about the current condition of habitat.
- Prior to 2018, some of the largest areas in Cornwall were identified around the Tamar estuary (567ha), but much of this habitat was reclassified by Natural England as deciduous woodland. (Natural England, 2018).
- In parts of the upper estuary where freshwater predominates are largest bankside reedbeds.
- Our reedbeds can support a wide range of wildlife, provided a variety of ages and structures are present. Damp areas support the greatest number of invertebrate species and the drier areas may support a wide variety of mammals, with drier areas providing habitat for water voles, harvest mice and otters, the latter using islands in the reedbed. Reedbeds are also important for bird species, such as the reed bunting.

### Pressures

- Climate change sensitivity medium. Dry summers may lead to the loss of aquatic species and loss of habitat for bird species that rely on wet reedbeds. Wetter winters, or extreme frequency of flooding events, may lead to higher nutrient loadings from in-washed sediments and run-off from agriculture.
- Encroachment or natural succession leading to shrubland and woodland.
- Vulnerable to sea-level rise.
- Other human influences, e.g. waste tipping, pollution, sewage discharge, high speed vehicle wave action.

## Lowland fen

### State

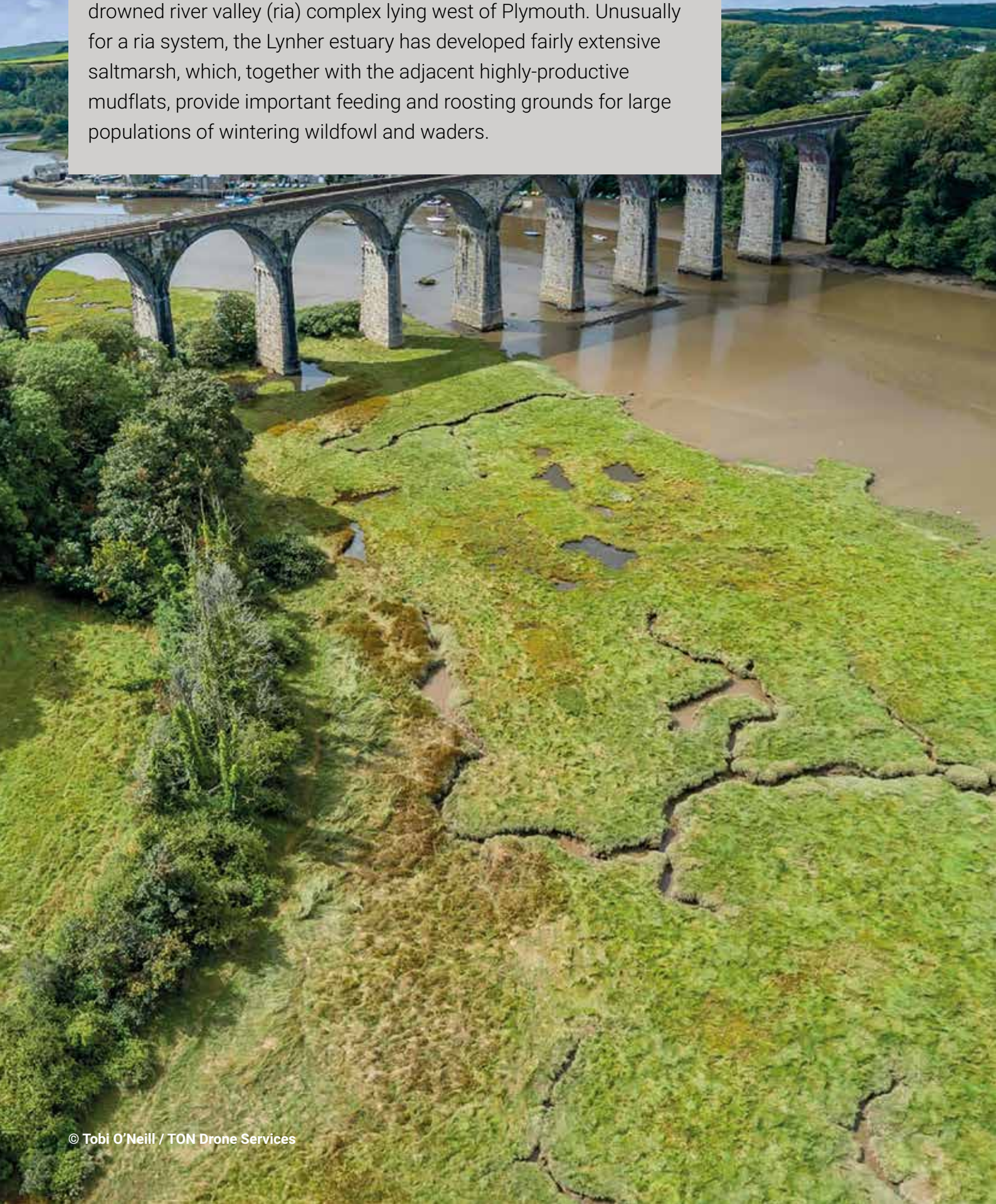
- 61ha (0.31% AONB cover) noted in local Cornwall habitat dataset.
- Noted habitat in the Tamar-Tavy SSSI and Lynher SSSI citations and occurs in at least two CWS.
- Typical lowland fen vegetation including wetland species, such as reeds, rushes and sedges. Habitat can be very diverse with a complex mosaic of open pools, drier tussocky areas with deep litter and transitions to swamp and wet woodland – like all wetlands, a magnet for wildlife, including dragonflies.
- Likely to be fragmented and may be isolated by intensively managed farmland.
- Current extent and condition of habitat unknown.

### Pressures

- Climate change sensitivity high. Altered seasonal rainfall effects may lead to the loss of wetland specialist species. Dry summers will lead to drying and associated impacts, including invasion of generalist or invasive non-native species. Wetter winters may lead to higher nutrient loadings from in-washed sediments and run-off from agriculture.
- Abandonment or lack of management leading to encroachment and habitat loss.



The Lynher estuary forms the western arm of the Tamar-Tavy-Lynher drowned river valley (ria) complex lying west of Plymouth. Unusually for a ria system, the Lynher estuary has developed fairly extensive saltmarsh, which, together with the adjacent highly-productive mudflats, provide important feeding and roosting grounds for large populations of wintering wildfowl and waders.





## Freshwater habitats

**The Tamar Valley AONB Partnership is a member of the Tamar Catchment Partnership [1] hosted by Westcountry Rivers Trust and established to facilitate communication between everyone working within the catchment landscape. Through creating oversight of the projects, strategies and targets within the catchment, the Tamar Catchment Partnership can help to develop collaborative projects and initiatives using the Catchment Based Approach (CaBA) to protect and improve the health of our rivers [2].**

The Rivers Tamar, Tavy and Lynher are the central defining features of the landscape and integral to the Tamar Valley AONB designation. All of our freshwater habitats – the rivers, streams, ponds and ditches – form a network of interconnected blue corridors which, if managed well, are an essential feature of the Nature Recovery Network, connecting terrestrial and marine systems and providing feeding and migration corridors for important and threatened species.

In addition to farmers and landowners, fishing clubs are key stakeholders and partners for any potential nature recovery action to improve the AONB's freshwater habitats.

### Rivers (and streams)

#### State

- 420km of primary (main river) channels and secondary/tertiary tributaries in the AONB.
- Tidal parts of the Tamar, Tavy and Lynher rivers are internationally important for wildlife. Freshwater habitats are some of the most biodiverse and the rivers themselves are critical for survival of migratory fish (salmonids, eels, allis shad and smelt).
- River Tamar is one of three index rivers in England and Wales and the only index river reporting on the marine survival rates of salmonids. Smelt have been included as a protected species within the Tamar Estuary Marine Consortium Zone (MCZ) because of the importance of this area for breeding. Allis shad migrates from shallow coastal water to spawn in non-tidal parts of the River Tamar - the only confirmed spawning site in England & Wales.
- Commercial fisheries licensing stopped in recent years. Recreational fisheries, predominantly salmon and trout, still active.
- The Environment Agency has monitoring stations on 49 sections of the River Tamar [3].
- South West Water's Upstream Thinking project [4] is a land-management scheme which applies natural landscape-scale solutions to improve water quality and supply in the Tamar and Tavy catchments.
- In the past, limited uptake of government agri-environment schemes to manage riparian habitat – in 2018 an Environmental Stewardship Scheme option for the creation of six metre buffer strips on 'Intensive Grassland Next to a Water Course' was taken up for only 1.2ha of riverbank (Natural England, 2018).
- Significant cultural and recreational asset and defining landscape feature, forging a link between the land and sea.

#### Pressures

- Climate change sensitivity high increasing water temperatures impact cool-water species (e.g. fish, molluscs, crustaceans). Pressure to migrate upstream (cooler water) and also downstream (during drought events) – opposing forces may "pinch" species out of catchments.
- Higher peak flows due to wetter winters and storm events may modify stream channels, increase sediment loading and erosion. In the Tamar Valley this poses a significant risk for water quality if sediments with a legacy of heavy metals are disturbed or acid mine drainage is connected to freshwater systems.
- Diffuse and point sources of pollution – leaching of pesticides, herbicides and fertilisers from agricultural land, raw sewage discharge and post-industrial legacy pollution all have major impact on river habitat and aquatic species.
- Vulnerable to spread of invasive non-native species upstream and downstream. Potential risks from horizon species in the Tamar Valley not fully assessed. Additional climate-related risk as flooding events have the potential to increase connectivity and spread invasive species between freshwater systems. Degradation of associated riparian habitats leading to biodiversity loss, erosion, sedimentation, etc.
- Management of water extraction with changing rainfall patterns, balancing needs of society with need to protect freshwater habitats.

**1 Tamar Catchment Partnership – <http://my-tamar.org>**

**2 Catchment Based Approach – <https://catchmentbasedapproach.org>**

**3 Objectives data for Tamar Management Catchment – <https://environment.data.gov.uk/catchment-planning/ManagementCatchment/3089/objectives>**

**4 South West Water Upstream Thinking Project – <https://www.southwestwater.co.uk/environment/working-in-the-environment/upstream-thinking/the-project/>**

## Ponds

### State

- Priority ponds (permanent or seasonal standing water bodies up to 2ha in area) do not feature in the national dataset of priority habitats in the Tamar Valley, but are present in three County Wildlife Sites and provide important habitat and otherwise likely underrepresented in habitat data. Extent (number) and condition of priority pond habitat in the AONB unknown.
- Deep open water pool in the centre of the Kit Hill CWS quarry grades into a small area of wetland, providing valuable habitat for amphibians and numerous species of dragonfly and damselfly.
- Ponds can be very diverse, supporting similar aquatic plants to lakes, and even more large invertebrates than rivers. The best ponds for wildlife have shallow margins with a fringe of vegetation and nearby plant cover for amphibians and insects with terrestrial life stages.

### Pressures

- Priority ponds with exceptional biodiversity value need protection, but because ponds can be created they may not qualify as irreplaceable habitat.
- Climate change sensitivity high. Increased risk of eutrophication and deteriorating water quality. Higher increased water temperatures impacting cool-water species and increasing overwinter survival of invasive non-native species. Wetter winters, drier summers and excessive drying out may cause local loss of species.
- Impacted by diffuse and point sources of pollution.
- Abandonment and lack of management leading to sedimentation, infill and encroachment.
- Fly-tipping can be an issue in easily accessible ponds.



Upper River Tamar passing under the medieval bridge at Horsebridge © Tobi O'Neill/TON Drone Services



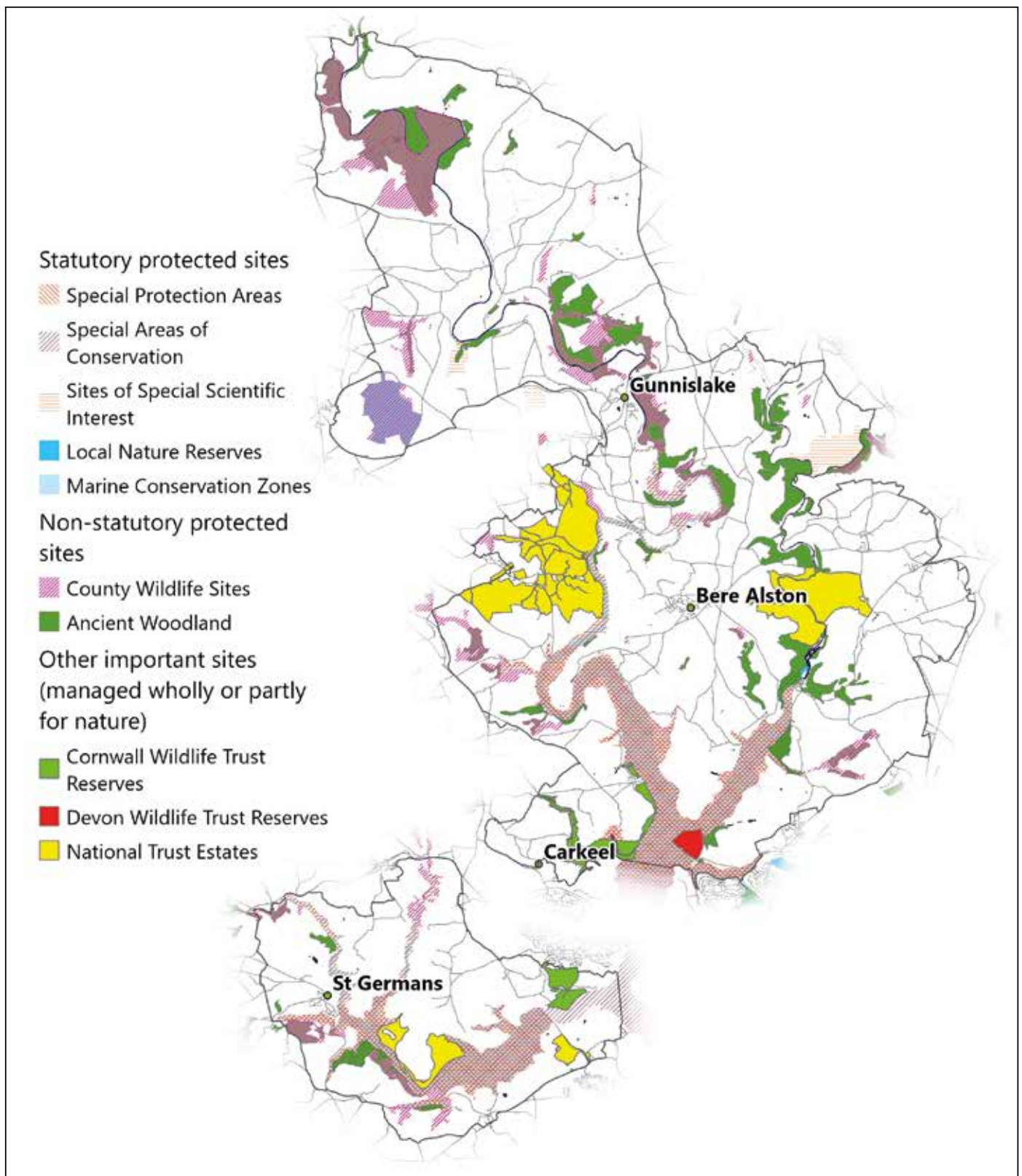
# Designated high-value ecological sites

The Tamar Valley AONB designation does not confer automatic legal protection of all natural features within its boundary, but other statutory designations do confer higher protection for nature at specific sites. The AONB contains both statutory and non-statutory designated high-value ecological sites for both habitats and species. These sites include priority habitats and together they make up a network that, if managed well, can make a significant contribution to nature recovery in the AONB.

Of the designated sites described next, we have identified that our Sites of Special Scientific Interest (SSSIs) and County Wildlife Sites (CWS), including ancient woodland sites, offer the greatest potential for nature recovery and enhancement – we shall work to identify volunteering and resourcing opportunities every two years to implement improvements and resilience measures. The other designated sites are, for the most part, actively managed for wildlife by others – we shall renew our engagement with those managers and support that work, where opportunities arise.

***Many designated sites are on private land: the listing of a site in these pages does not imply any right of public access.***

## Statutory, non-statutory and other important ecological sites Tamar Valley Area of Outstanding Natural Beauty



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## Statutory designated site

These sites are given the highest level of protection by means of certain UK (and European Union derived) legislation in recognition of their biodiversity value. Citation details are available from Natural England [1].

**Estuarine sites** – the Tamar, Tavy and Lynher estuaries (and their marginal terrestrial habitats) include a host of statutory ecological designations, all of which come under the broader Marine Protected Area (MPA) [2], namely;

- **Two Sites of Special Scientific Interest (ecological SSSI)** – Tamar-Tavy Estuary SSSI and Lynher Estuary SSSI
- **Two (combined) Marine Conservation Zones (MCZ)** – Tamar Estuary Sites MCZ
- **One Special Protection Area (SPA) for birds** – Tamar Estuaries Complex SPA
- **One Special Area of Conservation (SAC)** – Plymouth Sound and Estuaries SAC

**Terrestrial sites** – the AONB also contains four terrestrial sites with UK statutory ecological designations;

- **Two Sites of Special Scientific Interest (ecological SSSI)** – Greenscombe Wood, Lockett SSSI and Grenofen Wood and West Down SSSI
- **Two Local Nature Reserves (LNR)** – Kit Hill Country Park LNR and Lopwell Dam LNR

## Non-statutory designated sites

These terrestrial sites can be of significant value for nature conservation. They all contain priority habitats and designated ancient woodland is recognised as being irreplaceable, but non-statutory sites do not have the legal protection afforded by statutory designations. They receive some protection from development via local planning documents which recognise the need to protect and enhance designated sites and those of interest without a statutory designation, but their protection is not guaranteed. The AONB contains;

- **33 County Wildlife Sites**
- **37 named ancient woodland sites**

## Other important ecological sites

**Wildlife Trust Nature Reserves** – Cornwall and Devon Wildlife Trusts manage three nature reserves in the AONB, where wildlife is protected and wild plants and animals thrive;

- Churchtown Farm Nature Reserve (Cornwall Wildlife Trust)
- Tamar Estuaries Nature Reserve (Cornwall Wildlife Trust)
- Warleigh Point Nature Reserve (Devon Wildlife Trust)

**The National Trust** – the National Trust is working to create and restore priority habitats on 10% of its land with the ambition that by 2025 at least 50% of its farmland will be 'nature-friendly', with protected hedgerows, field margins, ponds, woodland and other habitats allowing plants and animals to thrive, including at Cotehele, Antony and Buckland Abbey estates.

**Proposed Plymouth Sound National Marine Park** – work is underway to develop the UK's first National Marine Park for Plymouth Sound, with the aim of developing a new marine designation to recognise the value, unique nature and diversity of uses, including the AONB estuaries.

### Important heritage and geological sites

Part of the Tamar Valley AONB is within the UNESCO Cornwall and West Devon Mining Landscape World Heritage Site (Area 10). The AONB also contains three geological SSSIs (Devon Great Consols, Hingston Down Quarry and Consols, and Lockridge Mine) designated due to their geology (rocks) and/or geomorphology (landform). These sites also have nature recovery interest and potential, e.g. Calaminarian grassland priority habitat associated with mine sites.

1 Natural England Designated Sites View – <https://designatedsites.naturalengland.org.uk>

2 Plymouth Sound & Tamar Estuaries Marine Protected Area – <http://www.plymouth-mpa.uk>

## The estuaries

**The Tamar Valley AONB Partnership will continue to work with its partners to support the management of the estuaries and their component designations. In particular, we shall work to identify volunteering and resourcing opportunities for our estuarine SSSI to implement improvements and resilience measures – both to improve habitat condition where it is unfavourable and more generally to support the recovery and enhancement of priority habitats and associated species.**

The Tamar, Tavy and Lynher estuaries are protected under multiple pieces of UK and European Union derived legislation. This legislation can be complex because of the wide range of nationally and internationally-important marine and estuarine habitats and species that are found in this area.

Because the estuaries are of such high ecological value, they form part of the larger Plymouth Sound & Tamar Estuaries Marine Protected Area (MPA) which is recognised and managed through legal or other effective means, to achieve the long-term conservation of nature and to form an ecologically coherent and well-managed network with associated ecosystem services and cultural values. The AONB Partnership is represented on the Tamar Estuaries Consultative Forum (TECF) [1] (hosted by Plymouth City Council) which monitors and has oversight on the management of the MPA. The proposed Plymouth Sound National Marine Park [2] will help us recognise the value, unique nature and diversity of uses of these sites.



**Artist's impression of the AONB lower river valleys, illustrating the close interconnection between the land, estuaries and the sea. Artist: Phil Collins**



## Summary of the Tamar, Tavy and Lynher estuaries' designations

PLYMOUTH SOUND & TAMAR ESTUARIES MARINE PROTECTED AREA					
Specific designations (UK or EU designation)	Site of Special Scientific Interest (UK)		Natura 2000 site <sup>1</sup>		Marine Conservation Zone (UK) <sup>2</sup>
			Special Protection Area (EU)	Special Area of Conservation (EU)	
Site Name	Lynher Estuary SSSI	Tamar-Tavy Estuary SSSI	Tamar Estuaries Complex SPA <sup>3</sup>	Plymouth Sound and Estuaries SAC	Tamar Estuary Sites MCZ
Total hectares whole designated site (area occurring within AONB)	673 (all)	1,414 (all)	1,955 (1,488)	6,387 (1,979)	1,530 (1,345)
Year notified/designated	1987	1991	1997	2005	2013
Last assessment update and status/condition (Natural England) (may be a partial assessment)	2020 Mainly favourable habitat; 35ha unfavourable terrestrial habitat	2014 Mainly favourable habitat; 43ha unfavourable terrestrial habitat	2021	2021 Unfavourable declining intertidal substrates, e.g. rock, sand and muddy sand (whole site). High concentrations of lead, mercury and various hydrocarbons consistently recorded across much of the SAC. Estuarine subtidal seagrass (12.16ha) unfavourable, declining	Habitats and blue mussel favourable; Oysters and smelt unfavourable
Qualifying features based on habitats or species	Both	Both	Bird species <sup>3</sup>	Both	Both
Examples of habitats noted in citation					
Ancient woodland	x	x	x		
Saltmarsh	x	x	x	x	
Reedbeds	x	x	x	x	
Terrestrial habitats	x	x			
Intertidal biogenic reefs (on blue mussel beds)					x
Inundation grassland		x			
Seagrass beds (intertidal) <sup>4</sup>	x				
Large shallow inlets and bays				x	
Mudflats	x	x	x	x	
Other intertidal habitat/ substrates (e.g. sediment, rock, sand)			x		x

Examples of species and species assemblages/communities noted in citations					
Shore dock ( <i>Rumex rupestris</i> )				X	
Triangular club-rush ( <i>Schoenoplectus triquetus</i> )		X		X	
Pied avocet ( <i>Recurvirostra avosetta</i> ) non-breeding		X	X		
Little egret ( <i>Egretta garzetta</i> ) non-breeding			X		
Other wintering wildfowl & wader species	X	X	X		
Hydroid ( <i>Cordylophora lacustris</i> )		X			
'Calstock' prawn ( <i>Palaemon longirostris</i> )		X			
Native Oyster ( <i>Ostrea edulis</i> ) <sup>5</sup>					X
Blue Mussel beds ( <i>Mytilus edulis</i> ) <sup>6</sup>					X
Smelt ( <i>Osmerus eperlanus</i> )					X
Allis shad ( <i>Alosa alosa</i> )				X	
Botanically-diverse Atlantic Salt Meadow/Saltmarsh communities		X		X	
Transitional/changing estuarine communities with salinity gradient	X			X	
Other notable intertidal and subtidal species and algal assemblages	X	X			
Well-developed and/or abundant estuarine invertebrate population		X	X	X	
Diverse ground flora		X			

Examples of notable species assemblages/communities					
Botanically-diverse Atlantic Salt Meadow/Saltmarsh communities			X		
Changing estuarine communities with salinity gradient			X		
Transitional marsh communities along a fresh to saltwater salinity gradient		X			
Other notable intertidal and subtidal species and algal assemblages	X				
Well-developed estuarine invertebrate assemblages	X				
Other wintering wildfowl & wader species	X	X		X	

**Notes:**

1 Natura 2000 site is the combined term for sites designated as Special Areas of Conservation (SAC) and Special Protected Area (SPA).

A Site Improvement Plan was developed for the Plymouth Sound and Tamar Estuary Natura 2000 site in 2014.

2 The Tamar Estuary Sites Marine Conservation Zone is located in two spatially separate areas – the upper reaches of the Tamar and Lynher estuaries.

3 The Tamar Estuaries Complex SPA was also designated as an Important Bird and Biodiversity Area in 2007. These are key sites for the international conservation of bird species.

4 Seagrass (*Zostera* spp.) beds – A 2010 intertidal biotope survey of the Tamar-Tavy Estuary SSSI & St John's Lake SSSI (located outside the AONB) noted a smaller intertidal bed of *Zostera noltii* west of Liphill Quay on the Tamar. *Zostera* spp. beds are also noted in the Lynher Estuary SSSI citation.

5 Blue mussel (*Mytilus edulis*) beds have been recorded in the Lynher and the Tamar estuaries, the largest is located downstream of the AONB boundary, along the shore of the Tamar adjacent to the Royal Naval Armaments Depot, Ernesettle. A set of small subtidal beds are located in AONB waters, upriver towards Weir Point. On the River Lynher, the main blue mussel bed is present in the lower reaches in the intertidal zone on both sides of the estuary (Jupiter Point and Shillingham Point) and is thought to join up subtidally.

6 Other species are associated with these blue mussel beds which form biogenic reefs, including, amongst other species, the native oyster (*Ostrea edulis*) and the non-native pacific oyster (*Crassostrea gigas*). The native oyster has been recorded in both the Lynher and the Tamar-Tavy section of the MCZ, one of only six sites designated for the species in England. Native oysters have been recorded north of the Tamar Bridge on the River Tamar and towards Hole's Hole, and there are records upriver on the River Lynher, north of both Warren Point and Shevioc Wood.



## Sites of Special Scientific Interest (ecological SSSI's)

The Tamar Valley AONB's four ecological Sites of Special Scientific Interest (SSSI's) are our finest sites for wildlife and natural features, supporting rare and endangered species and important semi-natural and priority habitats – SSSI's are seen to be representative of UK wildlife as a whole.

Natural England's SSSI objective is to achieve 'favourable condition' status for all SSSI's where 'habitats and features are in a healthy state and are being conserved by appropriate management'. Of the 2,150.34ha located in the AONB, 2,043.3ha are reported to be in favourable condition, although this includes littoral (mudflat) and sublittoral habitat whose ecological condition may not be fully assessed. A recent assessment of the Plymouth Sound and Estuaries Special Area of Conservation reported that intertidal rock, mud, sand and sediment habitats were in an unfavourable and declining condition, e.g. high concentrations of lead, mercury and various hydrocarbons were consistently recorded across much of the site (Natural England, 2021).

### Summary of AONB SSSI's sites

Site & area	Ownership/management	Priority habitat	Examples of associated species	Status/condition
Tamar-Tavy Estuary SSSI 1,414ha	Various	<ul style="list-style-type: none"> <li>• Saltmarsh</li> <li>• Reedbeds</li> <li>• Mudflats (littoral sediment)</li> <li>• Deciduous woodland (ancient woodland)</li> <li>• Fen</li> </ul>	<ul style="list-style-type: none"> <li>• Overwintering waders and wildfowl</li> <li>• Avocet (<i>Recurvirostra avosetta</i>)</li> <li>• Triangular club-rush (<i>Schoenoplectus triqueter</i>) (only site in the UK)</li> </ul>	<ul style="list-style-type: none"> <li>• 1,371ha favourable; 43ha unfavourable recovering (Natural England (NE), 2018)</li> <li>• Woodland management issues, including rhododendron, at Maristow Woodlands (Whittacliffe and Blaxton Woods). Both within a Higher Level Stewardship agreement, with the owner working with NE to produce a Management Plan to instigate the positive management required (NE, 2018)</li> </ul>
Lynher Estuary SSSI 673ha	Various	<ul style="list-style-type: none"> <li>• Saltmarsh</li> <li>• Reedbeds</li> <li>• Mudflats (littoral sediment)</li> <li>• Deciduous woodland (ancient woodland)</li> <li>• Fen</li> </ul>	<ul style="list-style-type: none"> <li>• Overwintering waders and wildfowl</li> </ul>	<ul style="list-style-type: none"> <li>• 637.77ha favourable; 34.86ha unfavourable declining (NE, 2018)</li> <li>• Woodland management issue</li> <li>• The area is broadleaved mixed and yew woodland that requires continued management of rhododendron along the shoreline and mature laurel which is seeding into the woodland</li> </ul>
Greenscoombe Wood Lockett SSSI 28.74ha	Duchy of Cornwall	<ul style="list-style-type: none"> <li>• Deciduous woodland (ancient woodland)</li> <li>• Lowland acid grassland</li> </ul>	<ul style="list-style-type: none"> <li>• Heath Fritillary butterfly (<i>Mellicta athalia</i>)</li> <li>• Rich epiphytic flora</li> <li>• Some species rich orchid heath areas</li> <li>• Notable damselfly and mollusc species recorded</li> </ul>	<ul style="list-style-type: none"> <li>• All unfavourable declining (NE, 2018)</li> <li>• Forestry and woodland management issue - of note is significant historical decline in the population numbers of Heath Fritillary butterfly due to adverse weather and decline in suitable habitat (NE, 2018)</li> <li>• Habitat management (coppicing) carried out and subsequent annual monitoring of Heath Fritillary by Butterfly Conservation</li> </ul>
Grenofen Wood and West Down SSSI 34.6ha		<ul style="list-style-type: none"> <li>• Deciduous woodland (ancient woodland)</li> <li>• Lowland acid grassland</li> </ul>	<ul style="list-style-type: none"> <li>• Diverse lichen flora (80 species recorded)</li> <li>• High Brown Fritillary butterfly (<i>Fabriciana adippe</i>) (nationally important population)</li> </ul>	<ul style="list-style-type: none"> <li>• All favourable (NE, 2010)</li> <li>• High condition risk identified for Low acid grassland priority habitat when reassessed in 2014</li> </ul>





**Managed open space habitat within Greenscombe Wood SSSI to encourage growth of the heath fritillary population**



## Local Nature Reserves

**We will work with our partners to support the ongoing management of these sites where opportunities arise.**

Local Nature Reserves (LNR) are designated for people and for wildlife – they are places with ecological or geological features that are of special interest locally and offer opportunities to access, engage with and enjoy nature. They are recognised as an impressive natural resource which makes an important contribution to biodiversity.



Lopwell Dam Local Nature Reserve LNR © Tobi O'Neill/TON Drone Services

## Summary of AONB Local Nature Reserves

Site & area	Ownership/management	Priority habitat	Examples of associated species	Status/condition
Kit Hill Country Park LNR 152ha  Note, the site is also a CWS	Cornwall Council/ Cormac Solutions Ltd.	<ul style="list-style-type: none"> <li>• Lowland heathland (one of the largest expanses in east Cornwall)</li> <li>• Lowland Dry Acid Grassland</li> <li>• Hedgerows</li> <li>• Some Deciduous Woodland</li> <li>• Wetland habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Habitats support a range of insects, reptiles (including adder), birds and mammals</li> <li>• Species-rich areas include lousewort, eyebright and heath bedstraw</li> </ul>	<ul style="list-style-type: none"> <li>• Managed for wildlife under Higher Level Stewardship, helping to maintain the heathland and stopping it reverting to scrub</li> <li>• Tamar Valley AONB Partnership was represented on the Kit Hill Advisory Group, which is no longer active (since 2020)</li> </ul>
Lopwell Dam LNR 4.6ha	South West Water/South West Lakes	<ul style="list-style-type: none"> <li>• Saltmarsh</li> <li>• Deciduous Woodland (ancient semi-natural woodland)</li> <li>• Freshwater wetland/marsh. Also, semi-improved grassland habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Saltmarsh species, including common saltmarsh-grass, sea couch, sea purslane, sea aster, sea club-rush</li> </ul>	<ul style="list-style-type: none"> <li>• Managed for wildlife</li> </ul>

## County Wildlife Sites

**Schemes such as Countryside Stewardship and the emerging Environment Land Management scheme may incentivise management of County Wildlife Sites, and the Tamar Valley AONB and its partners will advise on and support this.**

County Wildlife Sites (CWS) are of substantial ecological value and have an important role to play in the recovery of high-value habitat outside statutory protected areas in the Tamar Valley. The AONB's 33 CWS (approximately 1,353ha) are important sites for priority habitats and associated BAP habitats. Deciduous and ancient woodland is the predominant habitat.

### Examples of habitats present in AONB County Wildlife Sites<sup>1</sup>

Woody habitats	Number of CWS containing habitat
Ancient woodland	19
Deciduous (broadleaved) woodland <sup>2</sup>	25
Wet Woodland	6
Traditional Orchards	4
Hedgerows <sup>3</sup>	1
Grassland Habitats	
Unimproved grassland	5
Semi-improved /Species-rich grasslands	6
Acid grassland	2
Lowland Heathland	
Lowland Heathland <sup>4</sup>	7
Wetland and Coastal Habitats	
Lowland fens/fen vegetation <sup>5</sup>	7
Coastal Saltmarsh	1
Freshwater Habitat	
Ponds <sup>6</sup>	3

**1 Present when a site last surveyed (possibly not since 2005)**

**2 Coniferous plantings in 11 CWS**

**3 Ancient hedgerow noted for one CWS, but hedgerows likely in other sites**

**4 Some remnant heath or heath species noted in other sites (rather than Lowland Heathland BAP habitat present)**

**5 Wetland habitat (marshy grassland, mire, waterlogged, wet flushes) present in several sites including culm grassland, not listed in the national or local datasets for the AONB, noted in one CWS description**

**6 Quarry pool at Kit Hill included**

CWS are not regularly monitored and we know very little about the current condition and management of many of these Sites. The monitoring role is typically undertaken by Wildlife Trusts but it's an enormous task, when one considers that there are currently 498 County Wildlife Sites in Cornwall, covering nearly 33,000 hectares, and 2,200 CWS across Devon!

A 2018 report by the Wildlife Trusts on the status of England's Local Wildlife Sites (including CWS) showed lack of management to be the greatest threat to these Sites across the country. Where privately owned, the future of many of our CWS is dependent on the ability of farmers, landowners and foresters to carry out sensitive habitat management, perhaps with little financial support. In the AONB, some Sites are actively managed, including some volunteer activity – without such care and effort, these valuable ecological sites will gradually decline.

We have basic survey information (Cornwall Wildlife Trust, 2007) regarding an additional 127 proposed County Wildlife Sites in the AONB and other proposed or Unconfirmed Wildlife Sites are likely to be present in Devon.



# The working landscape

## Land use in the AONB

Farmland (arable, horticulture and improved grassland combined) covers almost 13,000ha of the AONB (65% cover) and can include semi-natural habitats of woodland and heath, man-made features like orchards and ponds, alongside tilled and cultivated fields with boundary ditches and hedgerows. Farming enterprises have a strong historical connection in the AONB, with the Tamar Valley's market gardens being a notable feature.

Due to its extensive area, the variety and change of farmland cover throughout the year is key to nature recovery in the AONB. There is a clear opportunity here. By making a little more space for connected priority habitats across the landscape (within and between land holdings, e.g. in less productive or marginal areas) we would be taking a very positive step for nature.

Land managed under current long-term agri-environment agreements may contribute towards '30 by 30'. There are 118 Stewardship agreements currently in place for 6,611ha of land holdings (34% of the AONB), but not all fields/areas within the land holding boundary will necessarily have scheme options on them.

The Tamar Valley AONB is actively supporting the farming community to increase uptake of agri-environment schemes. Individual farmers and land managers can only do so much and so work is underway to set up facilitation groups where farmers, foresters and other land managers can work collectively to improve the local natural environment at a landscape scale.

We have visited 94 farmers and growers and have engaged with many more through the Tamara Landscape Partnership Scheme's New Approaches' project [3] and the Farming in Protected Landscapes programme. Tamara's Land Management Officer is working closely with 25 farmers/landowners, supporting Countryside Stewardship applications and offering small grants for habitat creation and restoration and improving land management techniques to help soil and water quality. Developing skills, sharing knowledge and good practice and building relationships is important, too, and events are being run to enable this.

There are useful online tools available to help with this, e.g. Cornwall Council's Daras funding page hosts and displays a wide variety of funding opportunities for current and future land-based natural environment projects in Cornwall [1].

### Environmental Land Management scheme

The Tamar Valley AONB Partnership will support farmers and land managers transition to the Environmental Land Management scheme (ELMs), expected to be fully in place by 2028 [2].

The UK government has recognised how an integrated approach to farming and land management can benefit nature whilst producing food [3]. The ambition is to make it easier for more farmers to work like this through ELMs. It is expected that ELMs will bring together a number of previous land management and agri-environment schemes into one.

These schemes are expected to deliver improved integration across a number of biodiversity, soil, water, (in particular the Water Environment (Water Framework Directive) [4]), and flood management objectives, contributing to climate change mitigation and adaptation.

1 Cornwall Catchment Partnership Daras funding page – <https://www.daras.co.uk/farmers-landowners>

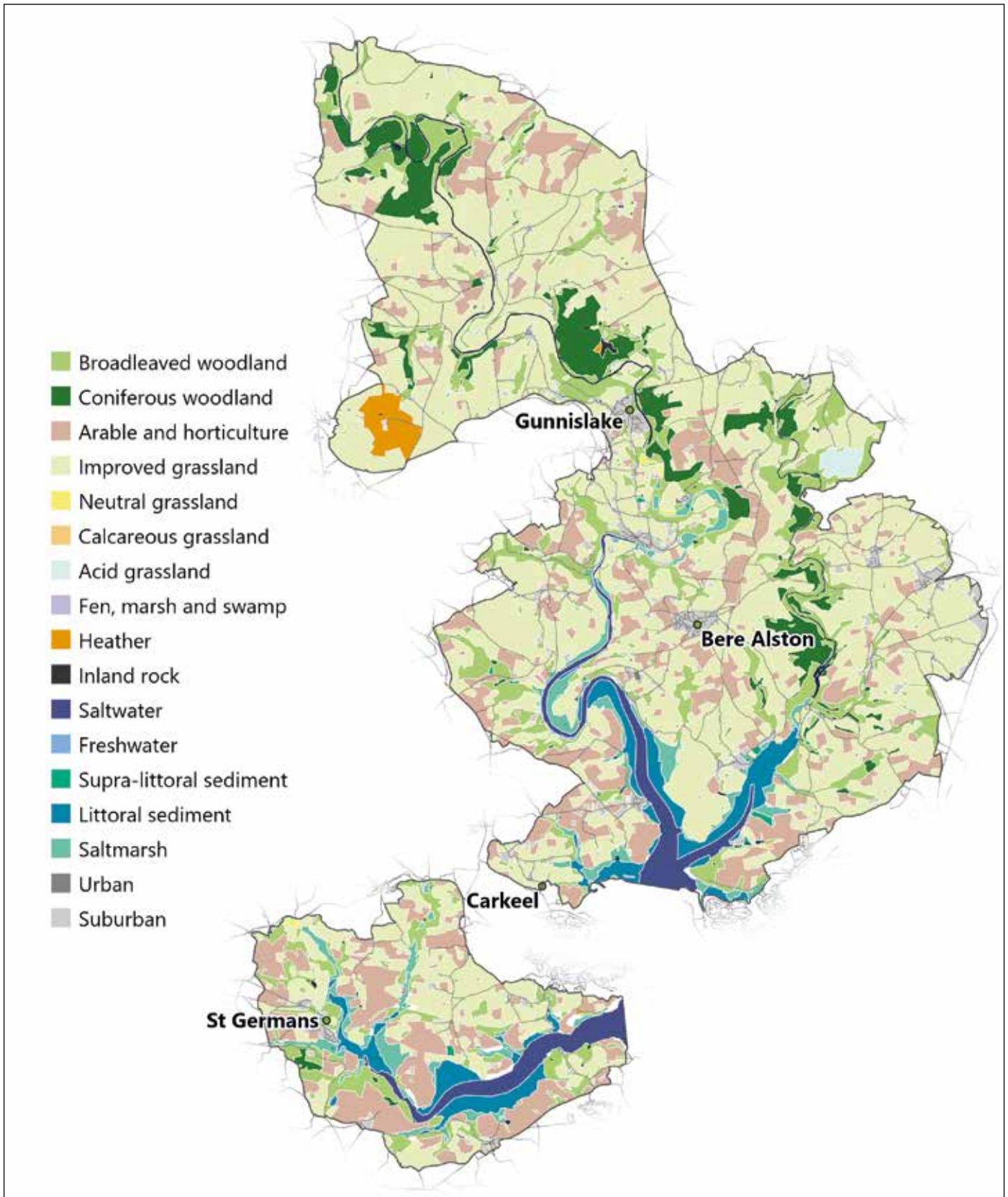
2 Environmental Land Management scheme – <https://www.gov.uk/government/publications/environmental-land-management-schemes-overview/environmental-land-management-scheme-overview>

3 Nature Recovery Green Paper: Protected Sites and Species (2022) – <https://consult.defra.gov.uk/nature-recovery-green-paper/nature-recovery-green-paper>

4 The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 – <https://www.legislation.gov.uk/uksi/2017/407/contents/made>

## Land cover

### Tamar Valley Area of Outstanding Natural Beauty



Contains the following datasets:

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CEH data © Rowland, C.S; Morton, R.D.; Carrasco, L.; McShane, G.; O'Neil, A.W.; Wood, C.M. (2017).

Land Cover Map 2015 (vector, GB). NERC Environmental Information Data Centre





The health of soil, plant, animal and man is one and indivisible

Lady Eve Balfour, founder of the Soil Association

## Productive soils

Whatever is above the land within the Tamar Valley AONB, whether woodland or pasture, it all sits on our soils, and it is that soil which, with sunlight and water, makes biodiversity and farming for food possible.

Soil health is at the heart of environmentally sustainable land management approaches, such as regenerative farming [1]. Good soil management delivers multiple ecosystem services and makes economic sense, too, with increased productivity and less waste. Evidence has been mounting that our land management and farming practices since the second world war have led to serious soil degradation and that, as such, it is important for us to include soil regeneration in any nature recovery work.

Healthy soil teems with its own biodiversity; complex fungal networks, bacteria and tiny creatures, whose place in delivering nutrient dense food, the systems that sequester carbon into the soil or the water cycle is only now starting to be properly researched. What we do know is that well-managed soils are fertile, can hold water effectively and are able to sequester carbon, which could be part of the solution to mitigate for climate change, so within our planning for nature recovery we would want to encourage good soil management practices.

Soil management actions can make a difference at any scale, so whilst farmers and growers along with any building development within the AONB are important, communicating to domestic gardeners and the wider public should also be undertaken.

Soil regeneration, as part of our Nature Recovery Plan, can be supported by encouraging these actions:

- **Keeping soil covered all year round** using green manure or other cover crops at times when the soil may have been left bare in the past.
- **Disturb the soil as little as possible**, encouraging use of min-till technologies, direct drilling or other techniques that do not require the soil to be disturbed as much as traditional ploughing does.
- **Reduction in organic inputs** – promoting ways to reduce or eliminate use of herbicides, fertilizer and fungicides which impact on long term soil health, recognising that it is not an easy transition to move away from these products.
- **Increase diversity of what is grown** – promoting the use of multi-species swards, e.g. herbal leys that provide coverage for the soil and different root lengths and also promoting soil biology and fungi, all of which give better water infiltration and provide grazing for animals whilst also offering more for pollinators and insects resulting in greater overall biodiversity in our fields.
- **Reduction of compaction** – promoting farming practices that reduce compaction, largely due to heavy machinery or animals travelling through gateways or on tracks. Where avoidance is not possible, to signpost farmers to mechanical solutions, such as aerators that can be borrowed or contracted in.
- **Reduction in erosion and run-off** – partnering with other agencies, including the Catchment Sensitive Farming Officers and Environment Agency staff, to promote farming practices that reduce soil loss through erosion and sedimentation of watercourses of Tamar Valley watercourses.
- **Uptake of the soil standards within Defra's ELM scheme, in particular Sustainable Farming Initiative (SFI) soil standards [2]** – which will benefit both the farmers and nature recovery.

1 Regenerative farming – <https://www.fwi.co.uk/arable/land-preparation/soils/regenerative-farming-the-theory-and-the-farmers-doing-it>

2 UK government SFI soil standards – <https://www.gov.uk/guidance/how-the-sfi-standards-work>





Agricultural students learn about rotational grazing and the benefits to soil and plant health. Image © Sarah Richardson, Tamara Landscape Partnership Scheme Land Management Officer



# Built-up and post-industrial areas

Nature recovery around settlements can add to our sense of place and wellbeing by enhancing landscape character and quality, including the Tamar Valley AONB's historic landscape features. Our built-up urban areas present plenty of opportunities to better integrate nature in less wild settings.

The AONB includes all, or part of, 24 parishes with their churchyards, cemeteries, schools grounds, playgrounds, allotments, community outdoor spaces, thousands of gardens, not to mention their roadside and footpath verges – all potential havens for wildlife with sensitive management. Cornwall & Isles of Scilly Local Nature Partnership has prepared a nature recovery toolkit for town and parish councils and community groups to help those who want to make a difference for their local environment, but are not sure how they can help [1].

Roadside verges are a good example of under-utilised ground with potential habitat-creation opportunities. Devon County Council is currently reviewing highways and trees using drone technology – modifying the management of these marginal areas would be good for wildlife and can also save costs to the Council. Cornwall Council is also adopting wildlife-friendly verge management, working closely with Cormac to manage these kinds of spaces for biodiversity. We can also learn from Cornwall AONB's Roadside Verges project (2017-2021) [2] which explored how to manage road verges in the best way possible for nature, the environment and people.

Several of the Cornwall and West Devon Mining Landscape Heritage Site (CMWHS) [3] Key Attributes within the AONB are also important natural capital assets. Mineworkers' smallholdings and the dry-stone walls and hedgerows that surround them provide habitats that support wildlife. Former mine sites provide shelter for rare plant species, birds, reptiles and bats, including the greater horseshoe bat which has an important maternity roost in a Tamar Valley mine.

Historic England [4] and the CMWHS are both members of the Tamar Valley AONB Partnership, and recognise the close relationship between heritage assets and habitats within the natural settings of many scheduled monuments and WHS assets, and we can work together to preserve those important natural features.



**Above: Mosaic of woodland, scrub and lowland heath at Okeltor Mine and County Wildlife Site and part of the Cornwall & West Devon Mining Landscape World Heritage Site**

**The Cornwall and West Devon Landscapes World Heritage Site Management Plan (2020-2025) [5] proposes an environmental audit of the Site to identify the value, vulnerability and resilience of landscapes and features at a World Heritage Site and community level. This knowledge will enable a better understanding of the environmental, ecological and biodiversity value of the Site, will be of practical application in terms of managing and protecting the Site, and will make a useful contribution towards biodiversity enhancement and partners' climate change responses.**

1 Cornwall & Isles of Scilly Local Nature Partnership's nature recovery toolkit – <https://naturecios.org.uk/nature-recovery-toolkit>

2 Cornwall AONB's Roadside Verges Project (2017-2021) – <https://www.cornwall-aonb.gov.uk/roadside-verges-project>

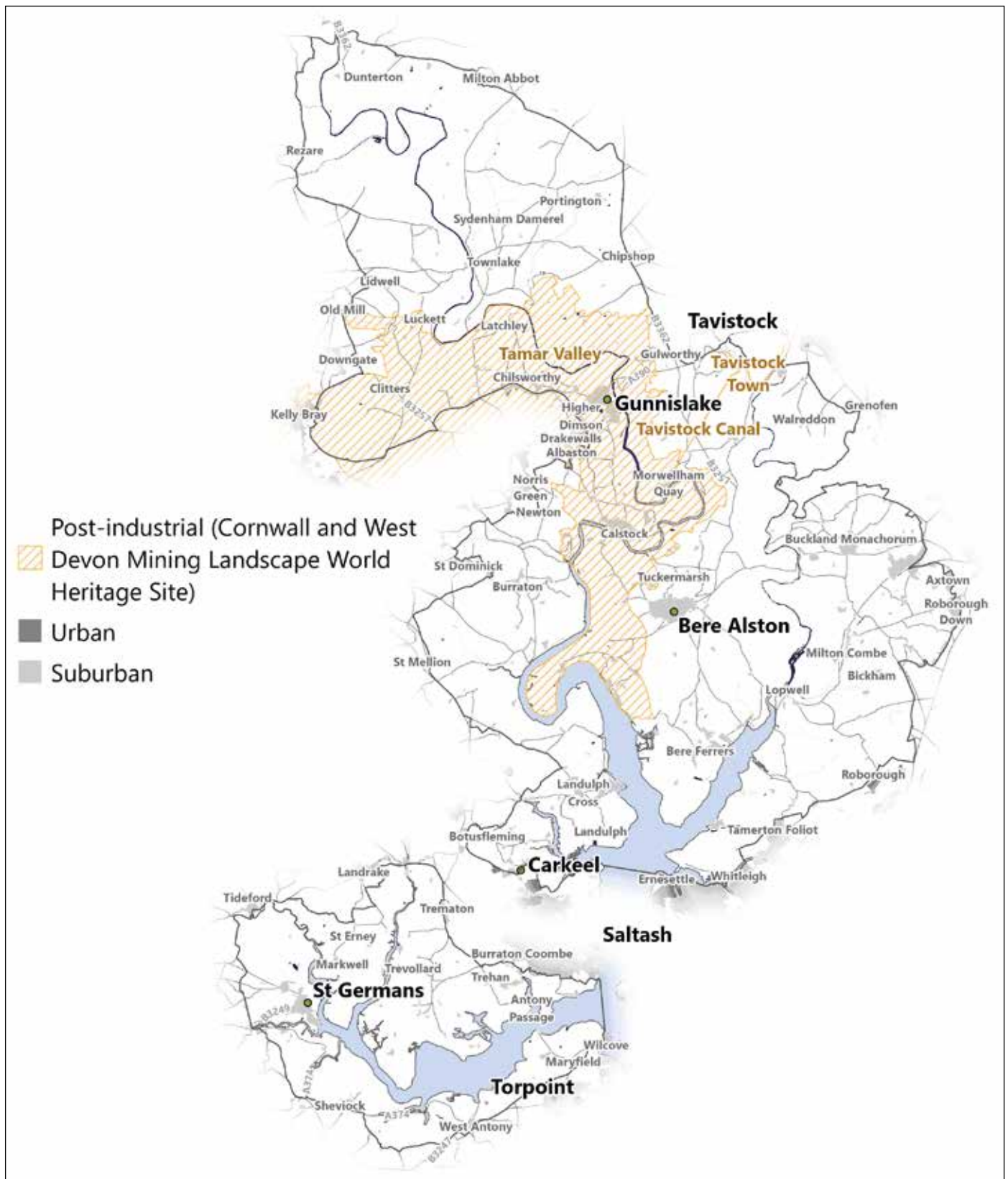
3 Cornwall and West Devon Mining Landscape World Heritage Site – <https://www.cornishmining.org.uk>

4 Historic England – <https://historicengland.org.uk/research/heritage-counts/heritage-and-environment>

5 Cornwall and West Devon Mining Landscape World Heritage Site Management Plan (2020-2025) –

<https://www.cornishmining.org.uk/conservation/managing-the-world-heritage-site/management-planmanagement-plan>

## Urban and mining landscape Tamar Valley Area of Outstanding Natural Beauty



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 CEH data © Morton, R.D.; Marston, C.G.; O'Neil, Rowland C.S. (2020). Land Cover Map 2019 (land parcels, GB).  
 NERC Environmental Information Data Centre  
 HE data © Historic England 2023



# Tamar Valley AONB Species

## Tamar Valley Special Species

Species-rich communities are essential for functioning, resilient ecosystems and the recovery of high-quality priority habitats is key to securing the future of associated species. But we can do more for individual species, too, and all AONBs across the country nationally have committed to taking action to remove 30 species from the IUCN Red List of Threatened Species (or UK equivalents) [1] by 2030 through the National Association for AONBs' Colchester Declaration.

Since its establishment in 1995, the Tamar Valley AONB Partnership has supported habitat and species conservation work, but we have never adopted particular species to champion. The Colchester Declaration also recognises the important role that championed species can have in helping raise awareness and engagement of people with wildlife.

Choosing which animals and plants to champion in the Tamar Valley is a hard call – after all, all species have an intrinsic value and what is considered special by one person may not be by another – but they could include;

- Species of most conservation importance or concern (priority species) which are on the revised Devon's Special Species list [2] and/or are a Cornwall BAP species, in particular where the Tamar Valley is an important area for a population.
- Species associated with our diverse habitats which should be widespread and flourishing in the Tamar Valley and beyond and should benefit from our work to improve and connect our priority habitats across the AONB.
- Species that people might be able to see – and help – in their own back gardens and community spaces.

With this in mind, and in consultation with our expert partners, we have selected seventeen species for which one or more of the following apply;

- Targeted species conservation action is likely to improve the state of a priority species population.
- Targeted species conservation action can also benefit other species.
- Our wider habitat enhancement and recovery action can increase the resilience of a species across the landscape.
- Action for species builds on other AONB partnership work, including securing the legacy of current and extant projects.
- Species have potential for broad public engagement and/or citizen science.

We will also take action for other species, working in collaboration with our partners and the wider community, where opportunities arise and resources allow.

### Image captions opposite:

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Nightjar © D. Cirano</li> <li>2. Bastard balm © Lesley Strong</li> <li>3. Heath fritillary © Tony Cox</li> <li>4. Willow tit © Geoff Carr</li> <li>5. Common toad © Getty Images</li> <li>6. Adder © Big Stock Photo</li> <li>7. Avocet © Big Stock Photo</li> <li>8. Plymouth pear</li> </ol> | <ol style="list-style-type: none"> <li>9. Dormouse © Jen Bousfield (taken under license)</li> <li>10. Greater horseshoe bat © M. Hammett (Natural England)</li> <li>11. Harvest mouse © Adrian Langdon</li> <li>12. Water vole © Adrian Langdon</li> <li>13. Triangular club-rush © Natural England</li> <li>14. Allis shad © Environment Agency</li> <li>15. Atlantic salmon © M. Gaunt</li> <li>16. Hedgehog © Adrian Langdon</li> <li>17. 'Calstock' prawn © Phil Collins/ Tamar Valley AONB</li> </ol> |
|--|--|

1 Red lists in Great Britain – <https://jncc.gov.uk/our-work/red-lists-in-great-britain>

2 Devon's Special Species – <https://www.dbr.org.uk/devons-special-species>

## Tamar Valley Special Species





## Vascular plants

- Includes flowering (e.g. grasses, rushes, sedges, deciduous trees) and non-flowering (e.g. coniferous trees and ferns) plants.
- Triangular club-rush (*Schoenoplectus triqueter*) – A notable priority species in the AONB, this nationally rare, critically endangered (England and Great Britain) species [1] had only one known remaining UK population on the muddy banks of a tidal stretch of the Tamar Estuary in Tamar-Tavy Estuary SSSI and was considered at risk of extinction from the UK. Efforts are being made to introduce it to other sites and monitoring will be required to secure the future of this estuarine species if possible.
- Plymouth pear (*Pyrus cordata*) – A nationally rare priority species, vulnerable to extinction in England and Great Britain [1]. The Plymouth pear is one of Britain's rarest trees and is thought to live exclusively in wild hedgerows in Plymouth (where it was first identified in 1870) and Truro. It might have once been widespread in mixed woodlands. A mature natural specimen is located at Derriford Hospital in Plymouth, but this tree needs pollinators to produce fruit. The Plymouth pear was one of the British trees to be funded under the government's 2006 Species Recovery Programme.
- Bastard balm (*Melittis melissophyllum*) – A nationally scarce priority species, vulnerable to extinction in England and Great Britain [1]. A noted species in the Greenscoombe Wood, Luccett SSSI citation and at least six of our County Wildlife Sites. Occurs on woodland, woodland edge and hedgebanks. A good pollinator species for bees especially.

## Invertebrates

- Invertebrates are vital to our lives and the provision of ecosystem services which we take so much for granted – the importance of invertebrates in the Tamar Valley is considered separately further on. They are found everywhere and are often unnoticed, especially in river habitat.
- 'Calstock' prawn (*Palaemon longirostris*) – This tiny prawn is found in only two estuaries in Britain, including the Tamar estuary around Calstock. It represents those millions of small species which are unseen and undervalued, but which are essential to functioning ecosystems and food webs, and upon which so many other species depend. The new intertidal habitats created at Calstock should be of benefit to this species.
- Heath fritillary (*Melitaea athalia*) – A priority species, endangered with extinction in Great Britain [1], found in the Greenscoombe Wood, Luccett SSSI, one of only four places in the UK where this butterfly can be found. The AONB Partnership has supported Butterfly Conservation delivering the Saving the Heath Fritillary in the Tamar Valley project (2017-2018) [2] and we want to continue to support work to secure its future. Butterfly Conservation reported that the heath fritillary population in Greenscoombe Wood had a good year in 2022, with the estimated peak population across all compartments higher than in any year since 2009, with the exception of 2018. Supporting Butterfly Conservation's good work is a real opportunity to contribute to the Colchester Declaration pledge for threatened species, by reducing the heath fritillary's current status as a species endangered with extinction in Great Britain. UK BAP targets for the heath fritillary covering the Devon & Cornwall population include:
  - Maintain the current range in east Cornwall, Devon and Somerset (2005 base line, 11 sites) – currently being met and exceeded. Annual monitoring is carried out and the current range is being maintained with management advice and support provided to landowners.
  - Restore populations in east Cornwall, Devon & Somerset to 1989 status by 2030 (1989 status, 27 sites/32 colonies) – progress to meet target by 2030 is ongoing, with work to restore and maintain suitable habitat in Cornwall, Devon and Somerset, including partnership working between Butterfly Conservation, the Duchy of Cornwall, Natural England and local landowners continuing.

There are opportunities for volunteers to get involved in the work to conserve the heath fritillary and the management of the habitat for this species, with coppiced woodland and flower-rich margins, which will benefit other species too.

## Amphibians

- Amphibians are incredibly important wetland animals. They act as both predator and prey, eating pest insects and invertebrates, such as slugs and snails, as well as providing vital food for birds and other animals like hedgehogs.
- They occur in a wide range of AONB habitats – ponds, wet marshes, woodlands, gardens, hedgerows and tussocky grassland – and can benefit from our work to enhance woodland, wetland and freshwater habitats and urban green spaces.
- Common toad (*Bufo bufo*) – A priority species, near threatened with extinction in England and Great Britain [1]. The common toad can benefit from our work in the Tamar Valley to enhance woodland, wetland and freshwater habitats and urban green spaces. Common toads are very particular about where they breed and often migrate back to their ancestral breeding ponds each year and so they are at risk from road death, particularly during the breeding season from as early as January to as late as April.

## Reptiles

- Reptiles are associated with a range of AONB priority habitats, from lowland heathland, woodland edges and hedges to abandoned mine sites and garden compost heaps.
- Shy and elusive, the impact of habitat disturbance, fragmentation and loss on reptiles can be overlooked.
- Adder (*Vipera berus*) – The adder is a priority species, vulnerable to extinction in England and near threatened in Great Britain [1]. This shy species is present on Kit Hill Country Park where it benefits from the control of encroachment onto the heath and scrub vegetation. It also occurs elsewhere in the Tamar Valley, but the population's state and distribution is unknown. Adders can benefit from our work to enhance woodland, grassland and arable field margins, heathland and post-industrial green spaces.

## Birds

- Birds are excellent indicators of ecosystem condition because they are responsive to environmental change, have important ecological functions, such as seed dispersal, and are easy to observe. Resident and migratory birds are found throughout the Tamar Valley AONB landscape. The estuary is nationally and internationally important for overwintering waders and waterbirds including the Tamar Estuaries Complex Special Protection Area and the Tamar Wetlands Important Bird Area.
- Avocet (Pied avocet) (*Recurvirostra avosetta*) – On the Amber List of Birds of Conservation Concern and of least concern with extinction in Great Britain [1]. A distinguished bird, associated with our coastal saltmarsh and mudflat habitats and a qualifying species for the Tamar-Tavy Estuary SSSI which receives 5% of the British (non-breeding) overwintering population. Working with expert partners, we want to ensure that overwintering habitats are in good condition. Intertidal and wetland habitat recreation work in our estuaries should benefit multiple bird species, including the avocet.
- Nightjar (European Nightjar) (*Caprimulgus europaeus*) – A migratory priority species on the Amber List of Birds of Conservation Concern and of least concern with extinction in Great Britain [1]. This enigmatic, nocturnal bird arrives in the Tamar Valley from April and departs usually in August. Not widespread in the UK, the nightjar's favoured habitats are woodland clearings, recently felled conifer plantations and heathland. Together with expert partners, we'd like to work with foresters to ensure that the area frequented by nightjars in the Tamar Valley is sensitively managed for this species.
- Willow tit (*Poecile montana*) – A resident priority species on the Red List of Birds of Conservation Concern in Great Britain since 2002 and globally endangered with extinction. Its range is highly fragmented, but extends west of Dartmoor, where it favours willow or other suitable thicket and scrub habitat in damp places, as found in Tamar Valley's riparian areas. The willow tit is under recorded in the AONB but has recently been confirmed in the lower Tamar Valley, through the efforts of a local landowner who has, with the support of the Tamara Landscape Partnership and the National Trust Cotehele, installed nest boxes and provided British Trust for Ornithology training for volunteers to conserve and support breeding efforts of, what is likely to be, a low-density population.

## Fish

- As top predators, fish are a key component of healthy aquatic ecosystems and serve as flagship species for our rivers, with populations sensitive to high temperatures and further impacted by degradation of spawning grounds, poor water quality and barriers to migration upstream. Our migratory fish species are also heavily impacted during their time at sea. Cumulative upstream counts of priority fish species at Gunnislake Weir (Environment Agency (EA) counter and trap) in 2021 were down on numbers recorded in 2020 and when compared to the long-term average (EA, 2022).
- Key partners and organisations are working to improve the quality of river habitats and to protect and enhance freshwater fish species populations by influencing how we manage our land, waste and other resources using a Catchment Based Approach (CaBA) – what we do away from our rivers is directly and indirectly degrading freshwater habitats, water quality and biodiversity and CaBA aims to address this. It is delivered by the EA through the South West river basin district river basin management plan [3] and by the Tamar Catchment Partnership through its Tamar Catchment Plan [4]. Our rivers are home to a number of fish species and, of these, we have included salmonids (represented by the Atlantic salmon) and allis shad in the list of Tamar Valley Special Species – action taken to help the recovery of these species will also benefit other cohabiting species (e.g. smelt, the European eel, sea and river lamprey).
- Allis shad (*Alosa alosa*) – A priority species which is rare and critically endangered in Britain [1], allis shad populations declined significantly in recent decades. It migrates from shallow coastal water to spawn in the non-tidal River Tamar – the only confirmed spawning site in England and Wales – and is a qualifying species for Plymouth Sound and Estuaries Special Area of Conservation. A study undertaken by the Environment Agency in 2020 has led to improved understanding of spawning habitat availability and use within the River Tamar [5]. Allis shad spawning habitat is limited to approximately 0.6ha in the tidal reach and 4.9ha in the lower River Tamar between Gunnislake Weir and Horsebridge; suitable spawning habitat almost certainly exists upstream of Horsebridge, but this was the upstream limit of the study which focused on the tidal reaches and lower River Tamar. Migratory barriers were identified, probably limiting access to spawning habitat upstream of the tidal limit.
- Salmonids represented by the Atlantic salmon (*Salmo salar*) – Atlantic salmon are considered by many to be the perfect barometer for measuring the health of our oceans and rivers, as they have life stages in both environments. There was a time when the South West region's salmon rivers were famed for their catches, but that is no longer the case. Sadly, there has been a significant decline in the population of this iconic priority species since the 1970s, with wild Atlantic salmon stocks reaching crisis point. Under serious pressure globally, the threatened status of this species is currently being reassessed, but it is currently considered endangered in Great Britain [1] and facing a very high risk of extinction in the wild in the near future. The River Tamar is one of three monitored index rivers in England and Wales and the only one reporting on the marine survival rates of salmonids. An improved run of multi-sea winter salmon on the River Tamar was recorded in 2017, when compared with previous years, but numbers are still around 90% down on figures for the 1970s and 1980s. The EA has tagged more than 4,000 juvenile salmon smolts before they leave the River Tamar and head out to sea, in order to gather vital data on the health of our salmon stocks and is used to inform both national and international salmon management and conservation measures [6].



## Mammals

- Mammals are excellent ambassador animals for wider public engagement, while habitat management for mammals is a gain for many other taxa.
- Mammals are associated with all of the AONB's priority habitats but, sadly, almost one in five of British mammal species face a high risk of extinction [7]. Expert groups and partners have identified issues relating to meaningful conservation action for mammals in the AONB and further collaboration is required.
- Monitoring and survey is a priority, to discover where these animals are and how their populations can be supported (or if they need support).
- Opportunity to work with the AONB to get catchment-wide information on individual species would be of great benefit and would inform targeted action for mammals (including small mammals, which are key components of the food web).
- Greater horseshoe bat (*Rhinolophus ferrumequinum*) – This priority species is of least concern of extinction in Great Britain [1]. However, it is one of the rarest bats in the UK and the population has declined by 90% during the last 100 years. Similar trends are seen across northern Europe, where they have European protected species status, and Devon is now an internationally-important stronghold. The Tamar Valley was identified as a hotspot for greater horseshoe bat activity through the Devon Wildlife Trust's Devon Greater Horseshoe Bat Project's citizen science survey which ran between 2016 and 2019 [8]. The lower River Tamar is a key area for this species in the region and home to an important maternity roost. The greater horseshoe bat is associated with our traditional orchards, woodland edges, hedgerows, cattle-grazed pastures and mining sites and is found in at least 9 County Wildlife Sites. The loss of woodland and hedgerows and use of pesticides are all threats to this otherwise long-lived species, depriving bats of hunting grounds and reducing numbers of their prey. There may be opportunities to collaborate with partners beyond the AONB and to build on the legacy of the Greater Horseshoe Bat Project, strengthening the resilience of this fascinating species across the landscape, while also benefiting other species that rely on the same habitats.
- Harvest mouse (*Micromys minutus*) – A priority species, categorised as near threatened with extinction in Great Britain [1], associated with a range of habitats including species-rich grassland, reedbeds, tussock grasses on heathland and field margins. Creation of field margins and reducing grazing pressure would benefit this species. The harvest mouse is a potential ambassador for grassland management and diversification, which also benefits invertebrates, ground flora and bat species. Nest searches make good public engagement events with limited welfare concerns. They can tell us a lot about our landscape and the benefits of making some space for nature. Cornwall Mammal Group is working with the Mammal Society nationally to improve recording of the species in Cornwall [9]. Very few records have been received over the last 20 years and they are trying to determine if the distribution remains countywide, current population levels and habitat preferences. This ties in with extensive and intensive work carried out through the Devon Mammal Group's Devon Harvest Mouse project (since 2016) [10]. Opportunities to support the Project in the Tamar Valley can be explored.
- Dormouse (Hazel dormouse) (*Muscardinus avellanarius*) – The hazel dormouse is a priority species categorised as vulnerable to extinction in Great Britain [1]. This charismatic animal is associated with woodlands and hedgerows – a mouse was found using nest boxes on the Cotehele Estate in 2017, but its overall distribution and status in the Tamar Valley is currently not known. The People's Trust for Endangered Species have established a national survey of dormice in hedgerow habitat [11] and Cornwall Mammal Group has been working with dormouse monitors for over 15 years at long-term sites across the east of the county, including the Lynher Valley. Planning is already underway for a dormouse project, led by the AONB, on the Bere peninsula in 2023, working with young people to survey for signs of this engaging species to confirm its presence on the peninsula. There are opportunities to collaborate with our local mammal groups – together we can work to help this once common species thrive once again in the AONB. Dormice make great ambassadors for hedgerow management, too, with wider gains for other species, e.g. invertebrates, birds and bats.
- Hedgehog (West European hedgehog) (*Erinaceus europaeus*) – The hedgehog is a priority species categorised as vulnerable to extinction in Great Britain [1]. The State of Britain's Hedgehogs 2022 report [12] indicated numbers are down in rural areas by between 30% and 75% since 2000. In contrast, urban area populations appear to be more stable and showing signs of recovery. This trend may be reflected in the Tamar Valley with hedgehogs a rarer sight generally, but with some more abundant local populations associated with villages. This highlights the importance of gardens, green spaces and local action to ensure a future for hedgehogs. Conservation organisations are trying to help, including Devon Wildlife Trust's Help the Hog campaign [13] and Cornwall-based Operation Hedgehog [14]. The latter has involved partners, including Cornwall Wildlife Trust and Cornwall Mammal Group, who are working to better understand hedgehog distribution across the county, including working at a community level with some success using footprint tunnels to monitor activity. Results indicate hedgehogs are mainly recorded around habitation/urban spaces in Cornwall, but virtually none in the open countryside, including most nature reserves checked. Reasons for declining hedgehog numbers can vary between urban and rural areas, including intensive management of hedgerows and pastures, direct and indirect impacts from the level of pesticides, increased impact of predation where habitat is already degraded, reduced connectivity and survival in urban areas caused by fencing development, roads, loss of 'untidy' areas used by hedgehogs, etc. Like the harvest mouse, hedgehogs can tell us a lot about our landscape and the benefits of making space for nature. Increasing the amount of connected priority and other good quality semi-natural habitat, sensitively managed for biodiversity, might help our hedgehog populations begin to recover.
- Water vole (European water vole) (*Arvicola amphibius*) – This priority species is endangered of extinction in Great Britain [1] due to a combination of threats, including riparian habitat loss and fragmentation from unsympathetic riverside and wetland management, predation by non-native mink and pollution. Needs monitoring (for mink particularly), habitat management and connectivity. If good quality wetland and riparian habitats are restored, there is potential for

water voles to re-establish; they have been successfully reintroduced elsewhere, at sites from which they vanished in the last 30 years. We don't know the current state of the population in the Tamar Valley, but there is an opportunity to support expert partners as they survey and monitor for this species. The re-establishment of the beaver in the Tamar catchment may provide new opportunities for the water vole and other wetland species. The work we are doing to connect our watery habitats, from wetlands to ponds and rivers will also benefit associated species.



Beavers (Eurasian Beaver) (*Castor fiber*) were given protected status in the UK in 2022. Natural engineers, they provide an impressive range of services, from storing climate-changing carbon to flood alleviation, and the habitat they create is hugely valuable for other species, too – if managed well, beavers can provide valuable nature recovery solutions. We shall work closely with the Tamar Beaver Management Group to monitor the spread and impact of this species in the Tamar catchment.  
Image © Adrian Langdon

- 1 Conservation designations for UK taxa – <https://hub.jncc.gov.uk/assets/478f7160-967b-4366-acdf-8941fd33850b>
- 2 Saving the Heath Fritillary in the Tamar Valley project (2017-2018) – <https://www.tamarvalley.org.uk/health-fritillary-project>
- 3 South West river basin district river basin management plan (Environment Agency) – [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1112561/South\\_west\\_river\\_basin\\_management\\_plan\\_2022\\_HRA.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1112561/South_west_river_basin_management_plan_2022_HRA.pdf)
- 4 Tamar Catchment Partnership (Tamar Catchment Plan) – <http://my-tamar.org/action-plan>
- 5 Habitat mapping and monitoring of allis shad on the River Tamar (Environment Agency, 2020) – <http://publications.naturalengland.org.uk/publication/5075147242602496>
- 6 Environment Agency salmon tagging on River Tamar – <https://www.gov.uk/government/news/tamar-salmon-tagged-to-provide-vital-data-on-health-of-fish-stocks>
- 7 British mammals' fight for survival (The Mammal Society and Natural England, 2018) – <https://www.mammal.org.uk/2018/06/british-mammals-fight-for-survival>
- 8 Devon Wildlife Trust's Devon Greater Horseshoe Bat Project (2015-2020) – <https://www.tamarvalley.org.uk/devon-greater-horseshoe-bat-project-2>
- 9 Cornwall Mammal Group – <https://www.cornwallmammalgroup.org/harvest-mouse>
- 10 Devon Mammal Group Harvest Mouse Project – <https://devonharvestmouseproject.edublogs.org>
- 11 National Dormouse Footprint Tunnel Survey (PTES) – <https://ptes.org/get-involved/surveys/countryside/survey-hazel-dormice/national-dormouse-footprint-tunnel-survey>
- 12 State of Britain's Hedgehogs (British Hedgehog Preservation Society and People's Trust for Endangered Species, 2022) – <https://www.hedgehogstreet.org/state-of-britains-hedgehogs-2022>
- 13 Devon Wildlife Trust's Help the Hog campaign – <https://www.devonwildlifetrust.org/take-action/garden-wildlife/help-hog>
- 14 Operation Hedgehog – <https://www.cornwallwildlifetrust.org.uk/volunteering-opportunities/operation-hedgehog-volunteers>



## Important invertebrates

We will ‘support projects that reverse the decline in native pollinators and encourage farmers and landowners to adopt pollinator-friendly practices’



**Tamar Valley AONB Management Plan 2019-2024**

Invertebrates make up an incredible 64% of all UK species and occur in every habitat. Individually, they may be small, but together invertebrates are huge and our ecosystems simply will not function without them – they are essential for productive soil, many of our wildflowers would disappear without insect pollination and most birds and mammals would starve.

## Important Invertebrate Area

The Tamar Valley is part of the Tamar Valley and Plymouth Limestone Important Invertebrate Area (IIA) [1] – a nationally-significant area for the conservation of invertebrates and the habitats they rely on. We are funding the completion of an assessment of the Tamar Valley and Plymouth Limestone IIA by the invertebrate conservation charity Buglife, which will be available in 2023. A fine scale map will be produced which will identify the sites of greatest importance for invertebrate conservation within the AONB.

## Tamar Valley B-Lines

In addition to being an IIA, the Tamar Valley is also one of the areas mapped as part of Buglife’s B-Lines project [2]. B-Lines are ‘insect pathways’ that need to be restored or created to help our native insect pollinators to move freely throughout our landscape.

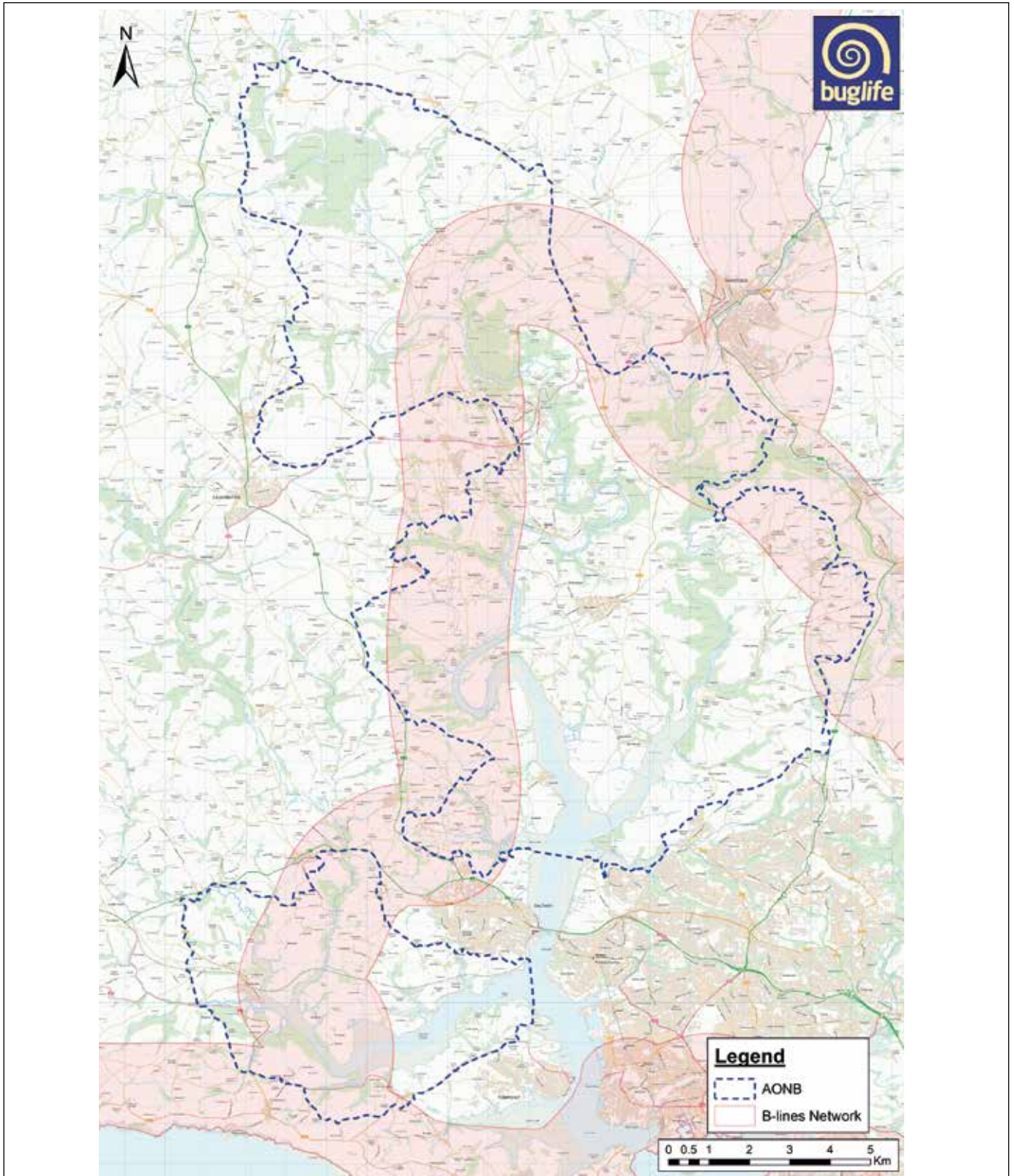


**A bumble bee on cherry blossom in a Tuckermarsh hedgerow © Lesley Strong**

1 Important Invertebrate Areas (IIA) – <https://www.buglife.org.uk/our-work/important-invertebrate-areas>

2 Buglife’s B-Lines project – <https://www.buglife.org.uk/our-work/b-lines>

## Location of B-Lines network Tamar Valley Area of Outstanding Natural Beauty





## Invasive non-native species

Invasive non-native species (INNS) are considered to be one of the five direct drivers of biodiversity loss across the globe, with an enormous associated economic cost. INNS can be particularly damaging to Tamar Valley AONB woodland, wetland, riparian and aquatic habitats by out-competing native species for food and space, spreading disease, reducing biodiversity and habitat resilience [1].

The AONB's rivers are a major pathway for INNS spread, both upstream (from the marine into our estuaries) and downstream. The Tamar Estuaries Marine Biosecurity Plan [2], to be republished in 2023, provides a guiding framework to reduce the risk of introduction of new non-native species to the Tamar Estuaries area. South West Water and South West Lakes Trust have also adopted and promote the Check, Clean, Dry approach to aquatic biosecurity [3].

We are taking action to try to reduce the spread and impact of INNS where we can, but it's an enormous task requiring significant resourcing, a long-term commitment and with no definite end point or exit strategy. We have had some notable success – the Tamar Valley Invasives Group (Tamar Valley AONB, Environment Agency, Natural England and Cornwall Council) has controlled giant hogweed for 20 years on the Rivers Tamar and Lyd, with the ambitious aim of eradication from the catchment [4].

But other species are of concern too. Himalayan balsam, Japanese knotweed and other macrophytes have infested the river corridors and the Pacific oyster is moving upstream, with localised impacts on the Tamar in St Johns Lake (Natural England, 2021). Non-native cordgrass has an impact on sensitive saltmarsh habitat, while rhododendron and laurel are noted reasons for the unfavourable condition of the Tamar-Tavy Estuary SSSI. Grey squirrel pose a great challenge to new tree planting schemes, while the localised impact of non-native pheasant on native species is also not fully understood.

1 GB Non-native Species Secretariat – <https://www.nonnativespecies.org/home/index.cfm>

2 Marine Biosecurity Plan Tamar estuaries 2018-2020–

<http://www.plymouth-mpa.uk/wp-content/uploads/2018/06/180613-Tamar-Estuaries-Marine-Biosecurity-Plan.pdf>

3 South West Lakes biosecurity – <https://www.swlakestrust.org.uk/News/vital-biosecurity-work-is-successful-across-the-south-west>

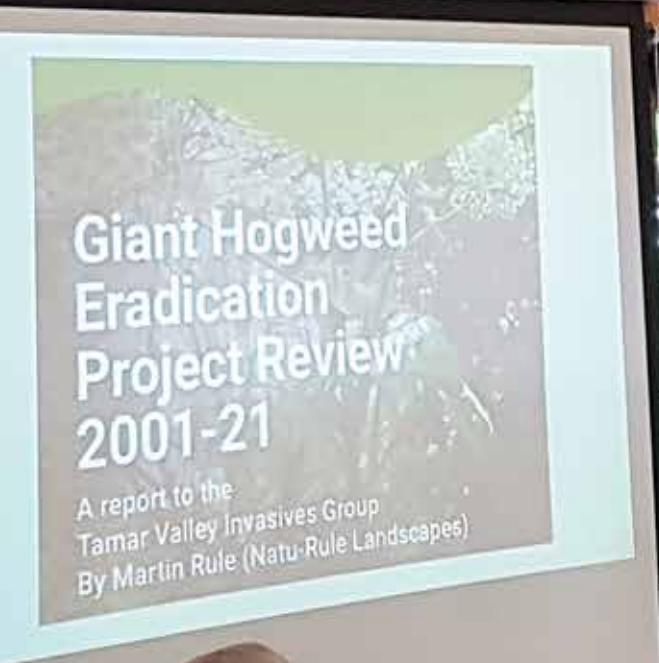
4 Giant hogweed eradication project – <https://www.tamarvalley.org.uk/tamar-invasive-plants-project>



Mixed stand of giant hogweed and Himalayan balsam © Tamar Valley Invasives Group



Sharing information on INNS control at the Tamar Valley Centre 2022 © Tamar Valley Invasives Group





# Delivering nature recovery in the Tamar Valley AONB

## What has been achieved so far?

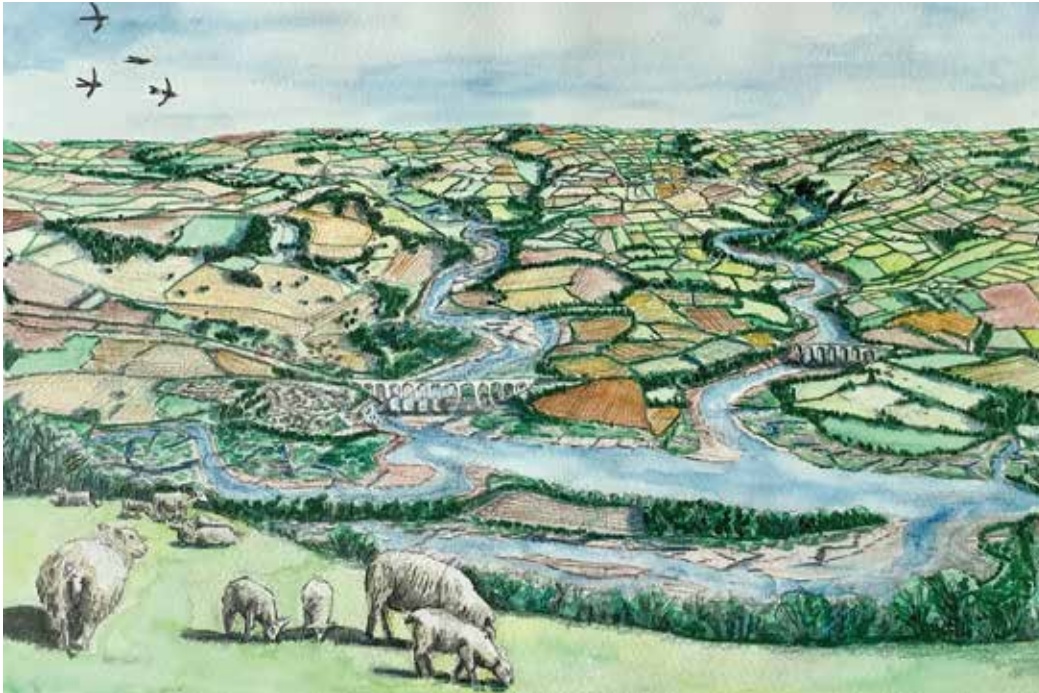
Here are just some of the projects we have been involved with in recent years that are helping to deliver nature recovery in protected landscapes



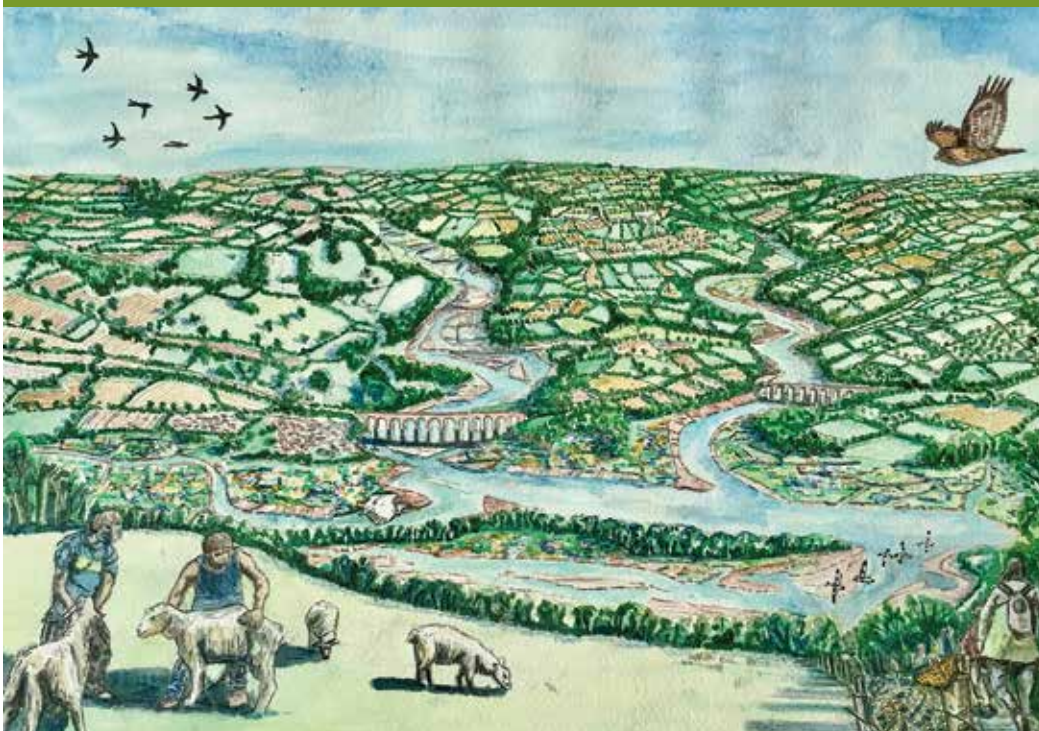
1. Building Resilience in South West Woodlands © Plantlife
2. Working with the farming community through the Tamara Landscape Partnership New Approaches Project and the Farming in Protected Landscapes programme © Tobi O'Neill/TON Drone Services
3. Planting trees with Forest for Cornwall and South Devon Community Forest
4. Making the Case for Investment in the Tamar Valley's Nature Based Services
5. Working with the Devon Greater Horseshoe Bat Project © M. Hammett (Natural England)
6. Restoring and enhancing the landscape at South Hooe © V. Darwall
7. Saving the Heath Fritillary in the Tamar Valley project © P. Eeles (Butterfly Conservation)
8. Surveying and controlling invasive non-native species through the Tamar Invasive Plants Project © A. Phillips
9. Creating new habitat and conserving access through The River Tamar Walkway and Wetland Project © Fotonow



# What nature recovery in the Lynher Valley can look like



Artist's impression of the Lynher Valley 2023



Artist's impression of the Lynher Valley  
Enhanced Nature Recovery Network  
Artist: Phil Collins



## Nature recovery action

Change can only be achieved with the necessary power and resources. If the powers and resources are not provided our combined efforts, no matter how well we plan, will be limited



### National Association of AONBs 2019 Colchester Declaration

The example actions listed in the following pages incorporate priorities from the current Tamar Valley Management Plan (extended to 2025), Landscape Character Assessment guidance and suggested action from expert partner organisations. These actions are in line with hard work being undertaken today, across the country, to halt the degradation of the UK environment – we know that working together, from grassroots action right up to major partnership projects, is the key to nature's recovery. Significant positive change can only happen on the scale required to create a resilient nature recovery network when farmers, tenants, landowners/managers are on board, therefore resources have to include attractive and financially viable options for those managing and working the land.

## Delivery phases

We have adopted a three phased delivery approach.

### Phase 1 – 2023

- Continue delivery of habitat management and creation work, primarily through the Tamara Landscape Partnership scheme, Farming in Protected Landscapes programme and core AONB projects in partnership with farmers, foresters and landowners/managers.
- Liaise with Natural England and the Wildlife Trusts to assess and scope plan of action for work at Sites of Special Scientific Interest and County Wildlife Sites for delivery starting in phase 2.
- Assess and identify top habitat/species/connectivity improvement opportunities, including scoped resourcing requirements, with projected delivery to start in phase 2.
- Promote our plan and further develop proactive relationships with community groups, volunteers and parish councils to support existing and scope other opportunities for management of private and public spaces to deliver in phases 1 to 3.
- Continue providing opportunities for people to connect to nature for delivery particularly through core AONB and Tamara Landscape Partnership scheme work, including citizen science opportunities linked to priority habitats and Tamar Valley Special Species – to continue through phases 2 and 3.

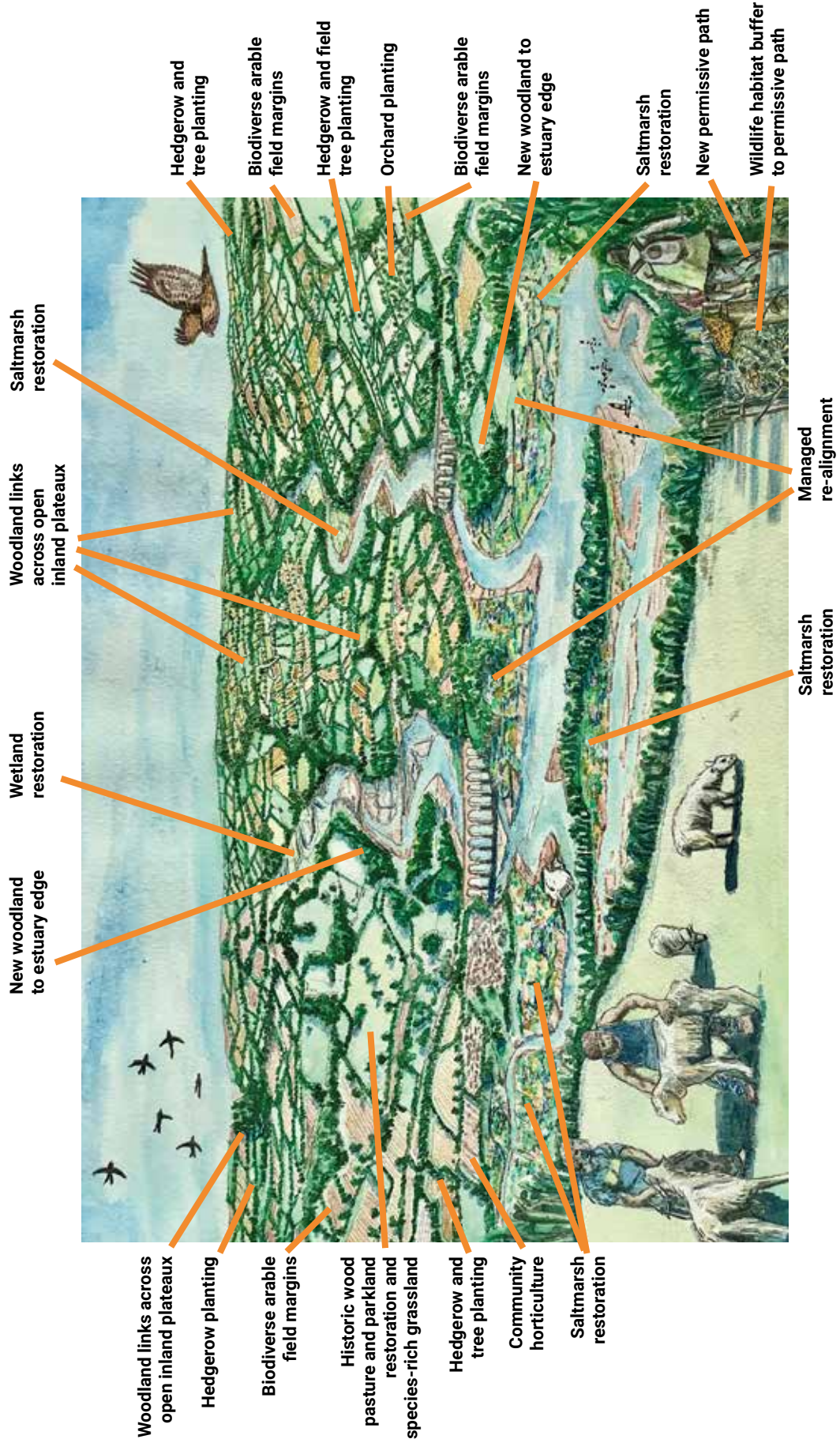
### Phase 2 – 2024 to 2025

- Current AONB management plan runs until end of 2025. Production of the management plan for next 5 year cycle to align with the Nature Recovery Plan delivery in phase 3.
- Final on-the-ground delivery of Tamara Landscape Partnership scheme and Farming in Protected Landscapes programme before end of 2025.
- Secure resources and begin delivery of scoped nature recovery projects developed during phase 1.

### Phase 3 – 2026 to 2030

- Continued projects delivery and seek additional resources to extend nature recovery action after 2030.

## The Lynher Valley - nature recovery suggestions





## General enabling actions for nature recovery

### Project development, fundraising/resourcing

- Identify our top five distinct opportunity habitat/species/connectivity improvement opportunities and secure the additional resources to implement these improvements.
- Promote Cornwall & Isles of Scilly Local Nature Partnership's Daras funding page, which hosts and displays a wide variety of funding opportunities for current and future land-based natural environment projects in Cornwall.
- Prioritise projects which deliver multiple outcomes – i.e. carbon, natural flood management, reduced nutrient loading and pollution. Cross reference projects against local nature recovery strategy priorities for Devon and Cornwall.
- Identify and promote uptake of grant and funding options to support nature recovery action within communities, both small and large-scale, and ensure the information gets out to interested parties in a timely manner, e.g. Woodland Carbon Guarantee which allows woodland owners to register their woodlands to sell carbon credit to the government, Community Chests, Tamar Valley AONB Sustainable Development Fund and other small grants.
- Ensure we are taking full advantage of opportunities for nature recovery in the AONB through the Biodiversity Net Gain agreements system. Work with local authorities and Local Nature Partnerships in delivery of this commitment.

### Planning and advocacy

- Take action to protect priority habitat and all existing irreplaceable habitat by promoting good decision making on planning applications. Work with local planning authorities, alongside relevant partners, to ensure that appropriate policies and processes are in place to ensure that development proposals, which would result in the loss of, e.g. ancient woodland and ancient or veteran trees within the Tamar Valley AONB, are resisted.
- Support town and parish councils to realise the potential of the Neighbourhood Development planning process to integrate nature recovery at a local scale.
- Support National Association for AONBs' work to ensure sustained commitment to nature recovery. Nature recovery objectives and targets, where appropriate and effective, will be incorporated into the next Tamar Valley AONB Management Plan (current Management Plan is extended to 2025).

### Collaboration and alignment of priorities and activities

- Collaborate and share what we are doing with partners and coordinate activities with common goals and audiences to avoid duplication, e.g. demonstration/knowledge events. Promote partners work in the area to maximise on-the-ground action, e.g. through the Tamar Valley Woodland Creation Group.
- Align with partner organisation priorities and planning to create opportunities around landscape-scale nature recovery action, where the maximum benefits can be provided. Cross reference projects against local nature recovery strategy priorities for Devon and Cornwall.
- Improve connectivity of habitats, through farm clusters, facilitation groups and linking like-minded landowners and community groups, etc.
- Work with partner organisations' outreach programmes to take advantage of support and assistance they may offer, e.g. England Tree Action Plan Delivery (TAP-D) promotional events regarding woody habitats and associated priority species.

### Communication and building relationships

- Tamar Valley AONB office to act as a hub and facilitator of nature recovery within the community, providing information, directing funding opportunities and supporting collaborative work within the area.
- Communicate the benefits of nature to people within the AONB, in particular as thriving and connecting habitats, carbon sequestrators and as potential sources of income. Improve public perception of under-appreciated habitat, e.g. saltmarsh, through publicity of its biodiversity value; increase public awareness of, and engagement with, species that need help, including Tamar Valley Special Species.
- Community engagement – ensure information about the AONB is shared in a way that is accessible to a variety of local interested audiences so that they gain a deeper understanding of the AONB's habitats and associated species, our nature recovery objectives and how we are supporting grassroot action, including signposting to useful resources.
- Build farming clusters as part of the facilitation programme, both with new farmers and as a progression of existing relationships (through Farming in Protected Landscapes Programme, Tamara Landscape Partnership Scheme and other core AONB work).
- Ensure consistent communications to landowners and farmers, including good signposting to all the grant and funding options for them to consider.
- Keep up to date on the communication of landscape management advice in the face of climate change. Disseminate information and guidance for landowners.

## Data and surveying

- Maintain, review and update baseline and survey data, including through citizen science, where it informs nature recovery planning and provides evidence of impact of nature recovery action. Be clear on what we're gathering data for and how useful it is – collaborate with partners, e.g. Cornwall and West Devon Mining Landscape World Heritage Site, to assess mutual data need and access. Review and develop best practice in applying this information effectively to enhance and conserve the AONB.
- Where capacity allows, ensure we feed survey data into relevant databases, e.g. Woodland Trust's Ancient Tree Inventory, and promote wider use of online recording portals e.g. iRecord and the National Biodiversity Network Atlas. Liaise with county recorders to identify mutual objectives. Opportunities for volunteer work here.
- Ensure research and survey information carried out within the Tamar Valley is disseminated/accessible to wider community and partners.

## Demonstrating positive impact

- Promoting success to generate interest and more action – collate evidence on how on-the-ground action, e.g. tree planting, is positively impacting the area, i.e. biodiversity, soil, water quality, local flood management.
- Identify exemplar and demonstration sites of priority habitat in the AONB and encourage others, e.g. farmers, community groups, to share their nature recovery experience and lessons learnt. Support the use of demonstration sites by practitioners through skill-sharing days, etc., in agreement with landowners/managers.
- Where appropriate, provide interpretation facilities, ensuring that they do not compromise the protection of sensitive sites.

## Volunteering and 'green job' opportunities

- Continue to support volunteer recruitment, providing meaningful hands-on opportunities through AONB project work and Valley Volunteers, including signposting to other organisations/groups offering volunteering activities in the Tamar Valley AONB.
- Provide and support green jobs and skills development in nature restoration through funded projects and AONB core programmes, in collaboration with partners, including local authorities, Local Nature Partnerships, Local Enterprise Partnerships etc., e.g. Cornwall and Isles of Scilly Local Enterprise Partnership's green skills work.

## Educating and promoting behaviour to protect wild spaces and species we love

Promote wildlife-sensitive behaviour and responsible access to nature, to ensure nature and wildlife are respected, e.g.

- Highlight campaigns around the Countryside Code, litter, responsible dog ownership during bird nesting season, etc.
- Increase understanding of risks of overexposure, e.g. encourage people not to tag all their favourite wildlife locations on social media, particularly for those more sensitive sites.
- Work with willing farmers and landowners on the outskirts of more urban areas, to bring in groups that otherwise have limited access to the countryside, for events such as wildlife watching, to enable them to identify birds/plants/pollinators/mammals/invertebrates – people may then look for species in their own gardens and provide food/habitat for these species.



## Action for Tamar Valley AONB habitats

The actions below incorporate recommended actions from expert partner organisations, current AONB Management Plan priorities and Landscape Character Assessment guidance.

### 1. Designated high-value ecological sites

***We will work with farmers, landowners, statutory bodies and other partners to help improve the condition of existing high-value sites, in particular Sites of Special Scientific Interest and County Wildlife Sites.***

Example actions	Potential partner organisations, etc
<p><b>Manage existing habitat</b></p> <ul style="list-style-type: none"> <li>• Work with Natural England to investigate current state of SSSI units which are unfavourable or at risk. Engage with farmers, landowners/managers to plan (phase 1-2) and implement (phase 2-3) recovery action.</li> <li>• Working with Wildlife Trusts, investigate the current condition of existing County Wildlife Sites. Engage with landowners/managers with a view to supporting site management and looking for opportunities to improve connectivity with adjacent landscape.</li> <li>• Work with the Tamar Estuaries Consultative Forum to support and make appropriate management responses in relation to the European Marine Protected Area.</li> <li>• Proactively engage with, and capitalise on, future opportunities presented by the proposed Plymouth Sound National Marine Park, in particular with regards the existing ecological designations in AONB estuaries.</li> <li>• Promote sustainable eco-moorings in the estuary which minimise impact on the substrate using established best practice models.</li> </ul>	<p>Natural England</p> <p>Environment Agency</p> <p>Woodland Trust</p> <p>Devon Wildlife Trust</p> <p>Cornwall Wildlife Trust</p> <p>Tamar Estuaries Consultative Forum</p> <p>Plymouth City Council (proposed Plymouth Sound National Marine Park)</p>
<p><b>Create new habitat</b></p> <ul style="list-style-type: none"> <li>• Review the current list of Unconfirmed or Proposed County Wildlife Sites and liaise with interested owners to assess current condition and management, with intention to support CWS confirmation process.</li> <li>• Collaborate with Dartmoor National Park to consider how to increase habitat quality and connectivity between the AONB and the National Park, protecting the areas of open access land at West Down, including the lowland acid grassland and woodland habitats with the Grenofen Wood and West Down SSSI.</li> </ul>	<p>As above</p> <p>Dartmoor National Park</p>

## 2. The working AONB landscape

*We will work with farmers, foresters and landowners to create and manage more, bigger, better and joined-up priority habitats and to apply good soil management practice across the landscape.*

### Woody habitats – deciduous woodland, ancient woodland and trees, hedgerows and traditional orchards

Example actions	Potential partner organisations, etc
<p><b>Deciduous woodland</b></p> <p><b>Manage, expand and connect existing habitat</b></p> <p>Share skills and knowledge with landowners/managers of woodland sites in the AONB</p> <ul style="list-style-type: none"> <li>Partner with local tree wardens, the Woodland Trust and Forestry Commission to run workshops and engagement events.</li> <li>Promote and support traditional and/or sustainable, environmentally-sensitive woodland management techniques and approaches.</li> </ul> <p><b>Support the effective management of existing woodlands and trees in the AONB</b></p> <ul style="list-style-type: none"> <li>Via our land management focused projects, encourage landowners/managers to get woodland management plans in place for their woodland (via Defra scheme grants, or if smaller woodlands don't qualify, via small grants where possible).</li> <li>Working with partners, identify woodland sites with exceptional flora, fauna or fungi and identify ways to encourage/support the landowners/managers to carry out appropriate management.</li> <li>Promote wet woodlands, their use, e.g. as a buffer strip to soak up polluting discharges, such as slurry from agricultural land, and their conservation requirements to landowners. Support sensitive management and enhancement under agri-environment schemes and woodland grant schemes, including control of overgrazing and maintenance of the water table.</li> <li>Promote the management of habitat mosaics within woodland blocks to maximise biodiversity potential, including woodland edge and scrub habitat.</li> <li>Where possible, through land-management programmes, implement habitat management to address invasive species – both non-native, e.g. rhododendron and laurel, and native, e.g. beech, holly, ivy – and the management of light levels.</li> <li>Educate the public on the increasing prevalence of pests and diseases within tree species and promote biosecurity.</li> <li>Encourage volunteer groups within the AONB to work with landowners/managers to remove old plastic tree guards from woodlands when no longer needed.</li> </ul> <p><b>Promote the use of products and services from woody habitats across the AONB</b></p> <ul style="list-style-type: none"> <li>Investigate opportunities to build on the legacy of the Cordiale project – continue to explore (and promote) sustainable management of plantations, woods and hedges for timber and woodfuel harvesting.</li> </ul>	<p>Woodland Trust</p> <p>Forestry Commission</p> <p>Defra (ELM Schemes/Countryside stewardship)</p> <p>Independent woodland consultants/contractors</p> <p>National Trust</p> <p>Tamar Community Trust</p> <p>Westcountry Rivers Trust</p>
<p><b>Create new habitat</b></p> <ul style="list-style-type: none"> <li>Promote and encourage new tree planting within the AONB</li> <li>Promote the benefits of tree planting to AONB audiences, including natural flood management, habitat creation and connection, carbon sequestration, climate resilience, shelter belts and reduction in soil erosion.</li> <li>Coordinate with partners who have funding for tree planting to, as far as possible, present a joined-up approach to all those in the AONB considering planting new trees (individuals, farmers, landowners/managers, community groups, parish councils, etc.).</li> <li>Share maps of planting grants available and work with partners to identify any areas where planting might be encouraged.</li> <li>Actively promote and use other best practice guidance, e.g. the UK Forestry Standard and the Right Tree Right Place approach, and woodland management plans and species choice guides and toolkits, e.g. Woodland Wildlife Toolkit. Educate those planting trees on tree guard options that meet the needs of the planting site and how to ensure the trees planted have a high chance of survival.</li> <li>Encourage planting a diverse range of UK sourced and native species and educate those planting about biosecurity and potential pests and diseases.</li> <li>Promote the benefits of natural regeneration to extend woodland areas in the AONB.</li> <li>Work with farmers, landowners/managers to identify sites to create and expand wood pasture.</li> </ul>	<p>Forest for Cornwall</p> <p>Plymouth and South Devon Community Forest</p> <p>Parish councils and community groups</p> <p>Woodland Trust</p> <p>Forestry Commission</p> <p>Devon Wildlife Trust</p> <p>Cornwall Wildlife Trust</p> <p>Westcountry Rivers Trust</p> <p>Natural England</p>



Example actions	Potential partner organisations, etc
<p><b>Ancient woodland and trees</b></p> <p><b>Manage existing habitat</b></p> <p><b>Enable as up-to-date and complete a map of ancient woodland habitats and trees within the AONB as possible</b></p> <ul style="list-style-type: none"> <li>• Encourage landowners, and the wider public, to register their ancient woodland, where appropriate carrying out ancient woodland assessments, and to map their ancient/veteran trees on the Woodland Trust's Ancient Tree Inventory.</li> <li>• Restart a volunteer survey of unidentified trees, building on the work done to begin recording the Special Trees of the Tamar Valley in 2014-2016, ensuring all trees identified are registered on the Ancient Tree Inventory.</li> <li>• Map ancientwood pasture and look for appropriate places to establish new habitat (the ancient wood pasture of the future).</li> </ul>	<p>Natural England</p> <p>Forestry Commission</p> <p>Woodland Trust</p> <p>Local tree wardens</p> <p>Plantlife</p>
<p><b>Share skills and knowledge with landowners/managers of ancient woodland sites in the AONB</b></p> <ul style="list-style-type: none"> <li>• Partner with local tree wardens, the Woodland Trust and Forestry Commission to run workshops and engagement events for farmers and landowners/managers with ancient woodland to share good woodland management knowledge and skills.</li> <li>• Support partner organisations to run wider ancient woodland habitat species events, e.g. for lichen, bryophyte, fern, fungi, including through the newly-established South West Rainforest Alliance Group (led by Plantlife).</li> <li>• Promote the use of management toolkits and other resources developed through partner work, e.g. Plantlife's Building Resilience in South West Woodlands project, including a handbook for woodland managers.</li> </ul>	<p>Defra (ELM Schemes/Countryside stewardship)</p> <p>Independent woodland consultants/contractors</p> <p>Parish councils and community groups</p>
<p><b>Preserve the ancient woodland and trees that we have in the AONB</b></p> <ul style="list-style-type: none"> <li>• Ensure the AONB planning officer is vigilant in screening new planning applications for trees registered on the Ancient Tree Inventory. Take action to protect all existing irreplaceable ancient wood and trees by promoting good decision making on planning applications. Work with local planning authorities, alongside relevant partners, to ensure that appropriate policies and processes are in place to ensure that development proposals, which would result in the loss of ancient woodland and ancient or veteran trees within the Tamar Valley AONB, are resisted.</li> <li>• Liaise with local tree wardens to support their work and publicise tree warden vacancies within the AONB.</li> </ul>	
<p><b>Support the effective management of existing ancient woodlands and trees in the AONB</b></p> <ul style="list-style-type: none"> <li>• Via our land management focused projects, encourage landowners/managers to get woodland management plans in place for their ancient woodland (via Defra scheme grants, or if smaller woodlands don't qualify, via small grants where possible).</li> <li>• Working with partners, identify any ancient woodland with exceptional flora, fauna or fungi and identify ways to encourage the landowners/managers to carry out the appropriate management.</li> <li>• Liaise with landowners/managers to investigate current state of ancient woodland within County Wildlife Sites and other designated areas and support recovery to favourable state where necessary.</li> <li>• Where possible, through land-management programmes, implement habitat management to address invasive species – both non-native, e.g. deer, squirrel, rhododendron and laurel and native, e.g. deer, beech, holly, ivy – and the management of light levels.</li> </ul>	

Example actions	Potential partner organisations, etc
<p><b>Hedgerows</b></p> <p><b>Manage existing habitat</b></p> <p><b>Make our exemplar hedges and hedge managers more visible in the AONB</b></p> <ul style="list-style-type: none"> <li>• Develop a definition and database of important hedges within the Tamar Valley AONB, building on the Tamar Valley AONB's Significant Hedge Survey (2013). Use the Historic Environment Farm Environment Record Portal (HEFER) for Selected Heritage Inventory for Natural England (SHINE) features.</li> <li>• Show, through our communication channels, the best examples hedges and those who manage them within the AONB through the seasons.</li> </ul> <p><b>Encourage habitat-beneficial hedge management practices across the AONB</b></p> <ul style="list-style-type: none"> <li>• Promote good hedge management practices, skills and knowledge, drawing on expert partner knowledge and resources, e.g. Hedgelink and the Devon Hedge Group, and arranging annual demonstration/knowledge events to coincide with National Hedgerow Week.</li> <li>• Collate current information on schemes to support hedgerow management and promote the uptake of appropriate grant schemes for the management and restoration of existing species-rich and/or ancient hedges.</li> <li>• Work with local parish councils and environmental/climate groups to promote good hedge management practices.</li> <li>• In particular, promote the planting or establishment of diverse in-hedge standard trees to enhance existing hedge habitats across the AONB, working with tree planting organisations such as Forest for Cornwall or Plymouth and South Devon Community Forest to enable this.</li> </ul> <p><b>Build traditional and modern hedge-friendly management skills in the AONB</b></p> <ul style="list-style-type: none"> <li>• Encourage partners to run hedge management skills workshops and talks, including hedge laying demonstrations, ensuring contractors, as well as farmers and landowners/managers, are engaged.</li> <li>• Encourage farmers and landowners/managers to proactively and confidently manage any hedge contractors to work in hedge-friendly ways on their hedges, using simple tools developed by Devon Hedge Group, Farming and Wildlife Advisory Group, etc.</li> </ul> <p><b>Promote the benefits of hedges for habitat, climate and as potential income source</b></p> <ul style="list-style-type: none"> <li>• Working with partners, promote the many benefits of managing hedges for nature and people within the AONB, in particular as thriving and connecting habitats, carbon sequestrers and as potential sources of income from coppiced wood or fruiting crops.</li> <li>• Support the development and delivery of projects which facilitate the harvesting of wood fuel for social, economic and biodiversity benefits.</li> </ul>	<p>Natural England</p> <p>Cornish Hedge Group</p> <p>Devon Hedge Group</p> <p>Devon Rural Skills Trust</p> <p>Parish councils and community groups</p> <p>Forest for Cornwall</p> <p>Plymouth and South Devon Community Forest</p> <p>National Trust</p> <p>Farming and Wildlife Advisory Group South West Ltd</p>
<p><b>Create new habitat</b></p> <p><b>Actively identify potential new hedges or lost hedges within the AONB</b></p> <ul style="list-style-type: none"> <li>• Encourage and educate landowners/managers on how to identify potential lost hedges on their land and principles around where new hedges are best placed to encourage habitat connection and corridors, or to manage run-off or soil erosion.</li> <li>• Secure funding to carry out desk research to identify areas within the AONB with less than 10km of hedgerow per km<sup>2</sup> or to connect key habitats to prioritise these for planting.</li> </ul> <p><b>Encourage the reinstatement of lost hedges and creation of new ones across the AONB</b></p> <ul style="list-style-type: none"> <li>• Promote the uptake of appropriate grant schemes and, when available, fund the construction and/or planting of new hedges and hedgebanks (in the appropriate Devon or Cornish styles) through any AONB-led land-management grant schemes.</li> <li>• Share skills and knowledge with farmers and landowners/managers on hedge trees and plants to encourage the planting of diverse and vibrant hedges, in particular increasing blossom and fruiting plants in the hedges.</li> </ul>	<p>Devon Rural Skills Trust</p> <p>Parish councils and community groups</p> <p>Forest for Cornwall</p> <p>Plymouth and South Devon Community Forest</p> <p>National Trust</p> <p>Farming and Wildlife Advisory Group South West Ltd</p>



Example actions	Potential partner organisations, etc
<p><b>Traditional Orchards</b></p> <p><b>Manage existing habitat</b></p> <p><b>Make our exemplar orchards and orchard managers more visible to those in the AONB</b></p> <ul style="list-style-type: none"> <li>Encourage farmers and landowners/managers to map their traditional orchards with guidance from, e.g. the People's Trust for Endangered Species (PTES). The latter are currently carrying out an independent survey of traditional orchards in the AONB through community outreach (February 2023).</li> <li>Show, through our communication channels, the best examples of traditional orchards and those who manage them within the AONB through the seasons.</li> </ul> <p><b>Restore and manage existing orchards within the AONB</b></p> <ul style="list-style-type: none"> <li>Revisit the findings of the Peoples' Trust for Endangered Species traditional orchard survey 2011/12, before considering how to build on its findings and those of the PTES current survey.</li> <li>Encourage farmers, landowners/managers and community groups to restore and manage traditional orchards across the Tamar Valley (note this would include all tree fruit and nut varieties, not just apples and cherries), where appropriate accessing funding to do this via Defra agricultural schemes, e.g. ELMs/Countryside Stewardship.</li> </ul> <p><b>Build traditional and modern orchard management skills in the AONB</b></p> <ul style="list-style-type: none"> <li>Build on the legacy of the AONB's Helping Hands for Heritage project (2014-2016), including the orchard pruning and management skills.</li> <li>Promote and encourage existing local community apple groups and promote the creation of new groups.</li> <li>Support and promote partners to deliver grafting days that encourage creating new local variety trees to preserve Tamar Valley, Devon and Cornwall varieties.</li> </ul> <p><b>Promote the benefits of orchards for habitats and climate</b></p> <ul style="list-style-type: none"> <li>Share knowledge on how orchards in particular can attract specific species of wildlife or plant life that are beneficial for humans.</li> </ul> <p><b>Encourage the development of new markets for orchard produce</b></p> <ul style="list-style-type: none"> <li>Work with partners to encourage local consumer markets for orchard produce from the AONB area, promoting local-produce events and connecting those with new business ideas to growers.</li> </ul>	<p>Local apple groups e.g. Tavy &amp; Tamar Apple Group</p> <p>Tamar Valley Apple co-op</p> <p>Tamar Grow Local</p> <p>National Trust</p> <p>People's Trust for Endangered Species</p>
<p><b>Create new habitat</b></p> <p><b>Encourage the creation of new traditional variety orchards</b></p> <ul style="list-style-type: none"> <li>Encourage the creation of orchards that draw on the heritage varieties of the Tamar Valley, Devon and Cornwall.</li> <li>Signpost the availability, and encourage the uptake, of funding for new orchard planting, via Defra schemes or other grants from tree planting schemes, such as Forest for Cornwall or Plymouth and South Devon Community Forest. When available, fund the planting of new orchards of heritage varieties within the Tamar Valley, through AONB-led land-management grant scheme.</li> </ul>	<p>Tamar Valley Apple co-op</p> <p>Tamar Grow Local</p> <p>National Trust</p> <p>Forest for Cornwall</p> <p>Plymouth and South Devon Community Forest</p>

Example actions	Potential partner organisations, etc
<p><b>General enabling actions for woody habitats</b></p> <p><b>Planning</b></p> <p>Take action to protect all existing irreplaceable ancient woodland habitats by promoting good decision making on planning applications</p> <ul style="list-style-type: none"> <li>By working with local planning authorities, alongside relevant partners, ensure that appropriate policies and processes are in place to make sure that development proposals within the Tamar Valley AONB, which would result in the loss of ancient woodland and ancient or veteran trees, are refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.</li> </ul>	<p>Local planning authorities</p> <p>Natural England</p> <p>Woodland Trust</p> <p>Forestry Commission</p>
<p><b>Tree/shrub supply and pathogen/disease</b></p> <p><b>Promote the development of local tree/shrub supply for, and in, the Tamar Valley</b></p> <ul style="list-style-type: none"> <li>Promote the use of local provenance plants and seeds in planting/sowing schemes to maintain genetic resilience within our woody habitats.</li> <li>Work with local plant nurseries to support the growth and supply of local varieties of trees (in particular fruit trees) and shrubs.</li> <li>Work with partners to encourage the establishment of community, and possibly commercial, tree nurseries within or close to the Tamar Valley.</li> </ul>	<p>Animal and Plant Health Agency</p> <p>Devon Ash dieback Resilience Forum</p> <p>Woodland Trust</p> <p>Forestry Commission</p>
<p><b>Educate to reduce introduction and impact of woody habitat pathogens, pests and disease within the AONB</b></p> <ul style="list-style-type: none"> <li>Encourage all nurseries to become 'Plant Healthy' compliant (<a href="https://planthealthy.org.uk">https://planthealthy.org.uk</a>).</li> <li>Educate public, farmers and landowners/managers in biosecurity best practice.</li> <li>Educate public, farmers and landowners/managers on squirrel and deer management.</li> <li>Encourage the 3:2:1 replacement principle (at least 3 new trees for loss of a large tree, 2 for a medium tree and 1 tree for a small tree) in order to help instil a commitment to the replacement of diseased trees.</li> </ul>	<p>Forest for Cornwall</p> <p>Plymouth and South Devon Community Forest</p>
<p><b>Woody habitat products, new markets and diversification</b></p> <p><b>Encourage the development of new markets for products, including;</b></p> <ul style="list-style-type: none"> <li>Sustainable wood and hedgerow fuel.</li> <li>Local fruit and juices.</li> <li>Potential nut market – more interest in this may arise.</li> </ul>	<p>Tamar Grow Local</p> <p>Cornish Hedge Group</p> <p>Devon Hedge Group</p> <p>Forestry Commission</p>
<p><b>Invasive non-native species (INNS)</b></p> <p><b>Work to manage INNS within the AONB</b></p> <ul style="list-style-type: none"> <li>Through the Tamar Valley Invasives Group, liaise with other interested organisations and groups, e.g. the Animal and Plant Health Agency INNS local group coordinator and local action groups (Devon Invasive Species Initiative, Community Invasives Non-Native Group) to share best practice etc.</li> <li>Review non-native plant and animal threats, in terms of pests and diseases and ecological impact in the Tamar Valley, to assess and prioritise deliverable actions with a clear exit strategy.</li> <li>Learn from other landscape-scale INNS control programmes to extend current INNS control and develop a short to long-term strategy for the Tamar Valley, e.g. Exmoor Non-Native Invasive Species project.</li> <li>Explore potential for volunteer-based action to control INNS.</li> </ul>	<p>Tamar Valley Invasives Group (Tamar Valley AONB, Environment Agency, Natural England, Cornwall Council)</p> <p>Animal and Plant Health Agency</p> <p>Devon Invasive Species Initiative (DISI)</p> <p>Community Invasives Non-Native Group (CINNG)</p> <p>Exmoor National Park</p> <p>Valley Volunteers</p>



## Tree planting schemes

The following tree planting initiatives are currently available in the Tamar Valley AONB. Note, Tamara Landscape Partnership Scheme (TLP) and Farming in Protected Landscape are to be delivered in the AONB/TLP scheme areas. Other targets cover wider areas.

### England Woodland Creation Offer (EWCO) – Forestry Commission (FC)

- Main government scheme – over 1ha – 30-year agreements with ten-year maintenance payments
- Being promoted in Tamar Valley, with support during application process, by Westcountry Rivers Trust Woodland Officers and Forest for Cornwall
- FC have on-the-ground Woodland Officers who can help support and advise, including specialist staff such as ecologists and archaeologists, to help ensure we get ‘the right tree in the right place’
- EWCO funds natural regeneration as well as traditional planting, and FC offer advice on how to ensure natural regeneration is viable and can achieve the owners’ objectives
- Future EWCO opportunities for smaller landholdings planned
- FC offer additional contributions to landowners: public money for public goods
- Possible 15% Emergency Fund to replant trees that have been lost to drought this year (to be confirmed)

### Forest for Cornwall – Defra’s Woodland Creation Partnership

- Target new woodland – 395ha by 2025
- Ten agroforestry sites – target 150ha, £2.5m of funding
- 125 sites woodland creation package – target 235ha (non EWCO, e.g. shelter belts and field corners)
- 125 landholding assessments to convert 70% to tree planting
- Landholding assessments include county farms (two in AONB), remainder can be representative of landowners across a range of ownership types
- Possible support for orchard creation

### Plymouth and South Devon Community Forest

- Trees for climate funding by Defra
- Target new woodland – 550ha by March 2025 (c. 80ha created 2021- 2022)
- Multi-purpose woodland
- Small-scale tree planting
- Natural colonisation
- Low density including agroforestry
- Hedgerow and hedge trees

### Duchy of Cornwall

- Target of 50ha/year (Duchy-owned sites and tenancy farms)

### Devon Wildlife Trust – Saving Devon’s Treescapes

- Focused on trees outside woodland, aiming to plant 250k trees over next 3 years

### Natural England (NE) – England Tree Action Plan Delivery (TAP-D)

- Defra-funded roles to provide advisory input into woodland creation schemes on behalf of NE
- Two Tap-D officers working across Devon and Cornwall offering free consultation for landowners
- Includes focus across, in particular, protected landscapes to look at strategic issues relating to woodland creation – looking at tree planting within AONBs in terms of how it supports the landscape character and what is or is not approved in schemes in relation to this

### Westcountry Rivers Trust

- Providing Woodland Officers to support EWCO applicants

### Tamara Landscape Partnership Scheme – New Approaches project

- One land management officer
- Habitat restoration targets are not specifically all targeted at trees
- Small grants available

### Countryside Stewardship

- Wood pasture can still be funded by Countryside Stewardship for one more year based on current Defra timelines

**Woodland Trust**

- Continue offer resources to support woodland creation, through their core schemes including MOREhedges and MOREtrees
- Emergency Tree Fund currently available in Devon & Cornwall
- Offer for landowners and farmers
- Woodland Creation Guide available

**Farming in Protected Landscapes programme delivered through Tamar Valley AONB**

- One Project Development Officer to support and deliver projects (funds extended until 2025)
- 1,639 trees approved to date, mainly fruit trees (includes 300 root stock)



Hatches Farm orchard planting for the Devon Greater Horseshoe Bat Project © Devon Wildlife Trust



## Grasslands and field margins

**Grasslands include priority grassland habitat (lowland dry acid grassland, purple moor grass and rush pasture, lowland meadow) and other species-rich grasslands, e.g. wildflower meadows. Arable field margins managed for wildlife are also priority habitat.**

Example actions	Potential partner organisations, etc
<p><b>Manage existing habitat</b></p> <p><b>Support identification and mapping of exemplar grassland and field margin habitats in the AONB</b></p> <ul style="list-style-type: none"> <li>Investigate current extent and state of priority grassland habitat within County Wildlife Sites and other designated sites.</li> <li>Promote partners to encourage farmers, landowners/managers and community groups in the AONB to add to online maps of priority grassland habitats, other species-rich grasslands and field margin habitats.</li> <li>Signpost landowners/managers to experts and volunteer groups who can carry out species identification and quantity surveys on their site and encourage this data to be shared with the Devon and Cornwall nature records organisations. Liaise with experts to investigate if fungi rich grassland habitat is present in the AONB.</li> </ul>	<p>More Meadows Forum</p> <p>Plantlife</p> <p>Fungus Conservation Trust and local interest groups</p> <p>Other grassland species experts</p> <p>Community groups &amp; volunteers</p>
<p><b>Share skills and knowledge with farmers, landowners/managers and community groups on how to enhance their grassland and margin habitats</b></p> <ul style="list-style-type: none"> <li>Share knowledge and skills with farmers, landowners/managers and community groups on the potential ways to manage grassland and margins to meet different environmental outcomes, including insect and pollinator diversity, soil health, water management, carbon sequestration, animal health, flora and fungi diversity and small mammal habitats.</li> <li>Promote meadow/species-rich grassland creation work of More Meadows Forum and through Plantlife's Meadows' Hub.</li> <li>Signpost to relevant grant and Defra schemes that could provide financial support for management of land which is already priority or species-rich grassland habitat or diverse field margins.</li> <li>Work with partners to promote and/or run farm/land events within the AONB to show land management practices for species-rich grasslands (e.g. wildflower meadows) and arable margins, including mob grazing, use of herbal leys and wildflower meadow management lifecycle.</li> <li>Habitat mosaics – where grasslands occur within woodlands, promote appropriate management, including grazing.</li> <li>Liaise with farmers, landowners/managers to investigate current extent and state of priority grassland habitat within County Wildlife Sites and other designated sites and support recovery to favourable state where necessary.</li> </ul>	<p>National Trust</p> <p>Farming and Wildlife Advisory Group South West Ltd</p>
<p><b>Create new habitat</b></p> <p><b>Promote the creation of new species-rich grasslands and field margin habitats across the AONB</b></p> <ul style="list-style-type: none"> <li>Share knowledge and skills with farmers, landowners/managers and community groups on the benefits of different management strategies for grassland and field margins and how to create these habitats.</li> <li>Signpost the availability, and encourage the uptake, of funding for new species-rich grassland and margin habitats, via Defra schemes or other grants. When available, fund the creation of species-rich grasslands and field margins within the Tamar Valley, through AONB-led land-management grant scheme.</li> <li>Promote meadow-creation initiatives, such as More Meadows and Plantlife's Meadow Makers' Network Forum.</li> <li>Educate the public within the Tamar Valley AONB about why, in the future, land might look different to how we are used to and how certain land-management practices are beneficial to flora, fauna and fungi, including contributing to climate mitigation and water management.</li> </ul>	<p>More Meadows Forum</p> <p>Plantlife</p> <p>National Trust</p> <p>Tamar Grow Local</p> <p>Valley Volunteers</p>
<p><b>Coordinate 'Meadow Maker' volunteers in the AONB</b></p> <ul style="list-style-type: none"> <li>Work with Tamar Grow Local and the National Trust to coordinate brush seed harvesting of wildflower meadows across the AONB or use of donated seed within the AONB ensuring that it is compliant with Animal and Plant Health Agency regulations.</li> </ul>	

Highland beef cattle, through their grazing and dunging, recycle nutrients which lead to a greater diversity of plant species and a more complex vegetation structure





## Lowland heathland

Example actions	Potential partner organisations, etc
<p><b>Manage existing habitat</b></p> <ul style="list-style-type: none"> <li>Identify and fill gaps in knowledge regarding the extent and condition of fragmented lowland heathland habitat in the AONB, to inform and support the management of sites as needed.</li> <li>Liaise with landowners/managers to investigate current state of lowland heathland habitat within County Wildlife Sites and other designated sites and support recovery to favourable state where necessary.</li> </ul>	<p>Natural England</p> <p>Cornwall Wildlife Trust</p> <p>Devon Wildlife Trust</p>
<p><b>Create new habitat</b></p> <ul style="list-style-type: none"> <li>Liaise with farmers and landowners/managers to investigate potential for, and interest in, re-establishment of lowland heathland on marginal/less productive or redundant land on the slopes of Kit Hill, at Hingston Down and along the granite ridge between the sites, particularly where it can buffer existing heathland. There may be some unimproved areas, most likely on small land holdings, that haven't had much fertiliser applied or alternatively areas of fertile soil could be scraped away. Kit Hill could potentially be a donor of seed/plant material. Liaise with funding bodies.</li> </ul>	<p>Cornwall Council/Cormac</p>

## Wetland and coastal habitats

*A number of key organisations are working with farmers and landowners/managers to improve the quality of Tamar Valley AONB wetland and coastal (estuarine) habitats through, e.g. the Tamar Catchment Partnership and South West Water/Devon Wildlife Trust's Upstream Thinking Project. We shall continue to actively support and facilitate this work, seeking opportunities to contribute to the recovery and enhancement of these important habitats.*

Example actions	Potential partner organisations, etc
<p><b>Coastal and floodplain grazing marsh</b></p> <p><b>Manage existing habitat</b></p> <ul style="list-style-type: none"> <li>Liaise with farmers and landowners/managers to support the management of areas of floodplain grassland, through appropriate grazing and traditional land management regimes – both to enhance their wildlife value and functions in flood prevention. Preserving this valuable, biodiverse habitat is ensured by controlled saltwater incursion and flooding, coupled with the maintenance and/or creation of pools and ditches with gently sloping sides. With sea-level rise it may not be feasible to maintain some existing areas.</li> </ul>	<p>Tamar Catchment Partnership</p> <p>Natural England</p> <p>Environment Agency</p> <p>Westcountry Rivers Trust</p> <p>South West Water</p> <p>Tamar Estuaries Consultative Forum</p> <p>National Trust</p>
<p><b>Create (expansion) new habitat</b></p> <ul style="list-style-type: none"> <li>Where feasible, identify opportunities for extension of existing grazing marsh habitat on its upper limits to allow for sea-level rise and coastal squeeze.</li> </ul>	
<p><b>Reedbeds</b></p> <p><b>Manage existing habitat</b></p> <ul style="list-style-type: none"> <li>Promote the positive management of existing reedbeds through agri-environment schemes and use to assess the success of management when renewal or a new agreement is needed.</li> <li>Liaise with landowners/managers to investigate current state of reedbed habitat within County Wildlife Sites and other designated areas and support recovery to favourable state where necessary.</li> <li>Identify opportunities for extension of existing reedbed habitat on its upper limits to allow for sea-level rise and coastal squeeze, e.g. new habitat creation at Calstock, Cotehele and South Hooe.</li> <li>Ensure that development schemes do not affect the integrity or the conservation interest of reedbeds.</li> <li>Promote good practice when active near reedbed habitat – boat users, fishermen, etc. Protect the estuary shores from damage through the restriction of high-speed vessels if necessary and promote good leisure and commercial boat maintenance practice to prevent chemical pollution entering estuaries and impacting vulnerable habitats, including reedbeds.</li> </ul>	<p>Tamar Catchment Partnership</p> <p>Natural England</p> <p>Environment Agency</p> <p>Westcountry Rivers Trust</p> <p>South West Water</p> <p>Tamar Estuaries Consultative Forum</p> <p>National Trust</p>
<p><b>Create (expansion) new habitat</b></p> <ul style="list-style-type: none"> <li>Seek opportunities to actively support the creation of reedbeds as wildlife habitat as well as to manage and filter run-off, in the estuarine and freshwater river corridors. Allow for sea-level rise and coastal squeeze of estuary sites.</li> </ul>	
<p><b>Coastal saltmarsh</b></p> <p><b>Manage existing habitat</b></p> <ul style="list-style-type: none"> <li>Promote the positive management of existing saltmarsh habitat through agri-environment schemes and use to assess the success of management when renewal or a new agreement is needed.</li> <li>Coordinate eradication programmes of invasive species that may threaten the biodiversity of the habitat.</li> </ul>	<p>Tamar Catchment Partnership</p> <p>Natural England</p> <p>Environment Agency</p> <p>Westcountry Rivers Trust</p> <p>South West Water</p> <p>Tamar Estuaries Consultative Forum</p> <p>National Trust</p> <p>Valley Volunteers</p>



Example actions	Potential partner organisations, etc
<ul style="list-style-type: none"> <li>• Monitor the extent and condition of saltmarsh habitat and communities (to include, where possible, monitoring of roosting and feeding birds where they are susceptible to disturbance by human activity). Possible volunteer opportunity.</li> <li>• Promote good practice when active near saltmarsh habitat – boat users, fishermen etc. Protect the estuary shores from damage through the restriction of high-speed vessels if necessary and promote good leisure and commercial boat maintenance practice to prevent chemical pollution entering estuaries and impacting vulnerable habitats, including saltmarsh.</li> <li>• Ensure that development schemes do not affect the integrity of local saltmarsh habitat.</li> </ul> <p><b>Create (expansion) new habitat</b></p> <ul style="list-style-type: none"> <li>• Seek opportunities to support the creation of saltmarsh, similar to work carried out at Calstock, South Hooe and Cotehele, where possible creating a mosaic of wetland habitats in the landscape.</li> <li>• Prioritise habitat regeneration/creation on upper shores to mitigate for sea-level rise and coastal squeeze.</li> </ul>	<p>Tamar Catchment Partnership</p> <p>Natural England</p> <p>Environment Agency</p> <p>Westcountry Rivers Trust</p> <p>South West Water</p> <p>Tamar Estuaries Consultative Forum</p> <p>National Trust</p> <p>Valley Volunteers</p>
<p><b>Lowland fen</b></p> <p><b>Manage existing habitat</b></p> <ul style="list-style-type: none"> <li>• Liaise with landowners/managers to investigate current extent and state of lowland fen habitat, including presence in County Wildlife sites and other designated sites. Assess management requirements and investigate options to support recovery of habitat.</li> <li>• Where fen occurs within other habitats (may be associated with purple moor grass and rush pasture) encourage appropriate management to maintain diversity of the habitat mosaic.</li> </ul>	<p>Natural England</p> <p>Cornwall Wildlife Trust</p> <p>Devon Wildlife Trust</p>
<p><b>Create new habitat</b></p> <ul style="list-style-type: none"> <li>• Where there is potential liaise with Natural England to discuss options.</li> </ul>	<p>Valley Volunteers</p>

## Freshwater habitats

***A number of key organisations are working with farmers and landowners/managers to improve the quality of Tamar Valley AONB freshwater habitats through, e.g. the Tamar Catchment Partnership and South West Water/Devon Wildlife Trust's Upstream Thinking Project. We shall continue to actively support and facilitate this work and the delivery of landscape and catchment-scale projects, designed to enhance freshwater habitats and biodiversity by improving water quality.***

Example actions	Potential partner organisations, etc
<p><b>Rivers</b></p> <p><b>Manage existing habitat</b></p> <p>Promote the management of the landscape through the catchment-based approach for the benefit of biodiversity and water quality in rivers and streams</p> <ul style="list-style-type: none"> <li>• Support good farming management practice through current and future AONB land-management schemes.</li> <li>• Encourage and actively support fishing clubs and riparian owners to conserve and enhance priority habitat and other high-quality natural features for their section of river, including habitat-restoration opportunities.</li> <li>• Seek opportunities to support the re-establishment of wetland habitats along streams and in naturally wet areas to increase water storage capacity and enhance biodiversity interest within the farmed landscape.</li> <li>• Create more natural river channels and corridors with increased tree and shrub cover and wider margins/ buffer strips of at least 4m width including both passive and active management. Promote riparian tree planting (e.g. Westcountry Rivers Trust's Woodlands for Water Project) – strengthen landscape resilience to climate change, including through willow/alder planting along the rivers to enhance water storage capacity in times of drought, and flood prevention during episodes of high rainfall.</li> <li>• Continue to support and promote the Westcountry Rivers Trust's Citizen Science Investigations</li> </ul> <p>Project through collaboration with the Tamara Landscape Partnership.</p> <ul style="list-style-type: none"> <li>• Continue to survey and control invasive species (along the river corridor) through the Tamar Valley Invasives Group, minimising negative impacts including loss of native biodiversity and reduced water quality due to erosion of riverbanks and sedimentation. Work with South West Water and other partners regarding biosecurity, to better understand the downstream spread of INNS within the freshwater system.</li> </ul>	<p>Environment Agency</p> <p>Natural England</p> <p>Westcountry Rivers Trust</p> <p>Tamar Catchment Partnership</p> <p>South West Water</p> <p>Cornwall Wildlife Trust</p> <p>Devon Wildlife Trust</p> <p>Local fishing clubs</p> <p>Woodland Trust</p> <p>Tamar Valley Invasives Group</p> <p>Valley Volunteers</p>
<p><b>Ponds</b></p> <p><b>Manage existing habitat</b></p> <ul style="list-style-type: none"> <li>• Liaise with landowners/managers to investigate current extent and state of ponds within County Wildlife Sites and other designated sites and support recovery to favourable state where necessary.</li> <li>• Initiate an online or volunteer-led pond survey to assess the number and condition of ponds in the AONB (new and historic).</li> <li>• Where ponds occur within woodlands, promote appropriate management to maintain site diversity.</li> </ul>	<p>Natural England</p> <p>Cornwall Wildlife Trust</p> <p>Devon Wildlife Trust</p> <p>Valley Volunteers</p>
<p><b>Create new habitat</b></p> <ul style="list-style-type: none"> <li>• Liaise with farmers, landowners/managers and community groups to actively support the creation of open freshwater temporary and permanent pond habitat.</li> </ul>	



### 3. Built-up and post-industrial areas

*We will work with community groups, parish councils, local authorities and other partners to encourage and support the management of private and public spaces for wildlife in villages, gardens, parks, heritage sites, school grounds, verges, etc.*

Example actions	Potential partner organisations, etc
<p><b>Manage existing habitat</b></p> <p>Promote the management of public spaces, churchyards and cemeteries, parks and private gardens, to increase their biodiversity value, for example:</p> <ul style="list-style-type: none"> <li>• Leave some 'untidy' areas throughout the year – tussocky grass margins adjacent to hedgerows, leaf and log piles to provide cover.</li> <li>• Make space for wildlife-friendly ponds (big and very small).</li> <li>• Take part in Plantlife's 'No Mow May' to allow wildflowers to set seed.</li> <li>• Avoid the use of biocides and peat-based products – provide information on alternative products.</li> <li>• Promote and signpost to information on bat-friendly lighting options to minimise disturbance.</li> <li>• Liaise with Cornwall AONB to apply the lessons learnt from their action to promote sensitive management of road verges in the best way possible for nature (Roadside Verges Project, 2017-2021).</li> </ul>	<p>Parish councils</p> <p>Community wildlife and climate action groups</p> <p>Local Nature Partnerships</p> <p>Plantlife</p> <p>Cornwall Wildlife Trust</p>
<p><b>Create new habitat</b></p> <ul style="list-style-type: none"> <li>• Work with local community groups and parish councils to identify potential community spaces and provide support to create a mosaic of natural habitats, managed for wildlife, e.g. ponds, bushy hedges and fruit/native trees, areas of rough grass, in particular adjacent to hedgerows, streams, ponds and log piles.</li> <li>• Promote useful resources such as Cornwall &amp; Isles of Scilly Local Nature Partnership's nature recovery toolkit for town and parish councils and community groups.</li> <li>• Support the natural regeneration of priority habitats on mine sites which complements the preservation needs of the built-heritage assets/scheduled monuments, etc. This may include seeking solutions to reduce mine pollution and risk of future events while meeting (landscape and) biodiversity targets, e.g. supporting specialist species that require bare soil heap habitats.</li> <li>• Promote tree-planting schemes available for small scale community planting in the AONB, e.g. Forest for Cornwall and the Plymouth and South Devon Community Forest.</li> </ul>	<p>Devon Wildlife Trust</p> <p>Cornwall and West Devon Mining Landscape World Heritage Site</p> <p>Historic England</p> <p>Forest for Cornwall</p> <p>Plymouth and South Devon Community Forest</p> <p>Tamar community Trust</p> <p>Valley Volunteers</p> <p>Community Groups</p>







## 4. Action for Tamar Valley AONB species

**We will work with community groups, parish councils, local authorities and other partners to encourage and support the management of private and public spaces for wildlife in villages, gardens, parks, heritage sites, school grounds, verges, etc.**

Species-related action	Potential partner organisations, etc
<p><b>Vascular plants</b></p> <p><b>Plymouth pear</b></p> <ul style="list-style-type: none"> <li>• Seek lessons learnt from previous reintroductions in other areas.</li> <li>• Identify suitable hedgerow habitat within species former range, where reintroductions could take place.</li> <li>• Source Plymouth pear seeds and grow locally for replanting to extend the distribution and abundance by agreed number of new sites. Note, mature tree in Derriford Hospital, Plymouth grounds (natural regeneration).</li> </ul>	<p>Natural England</p> <p>Environment Agency</p> <p>Woodland Trust</p> <p>Calstock Wetlands Management Group</p>
<p><b>Triangular club-rush</b></p> <ul style="list-style-type: none"> <li>• Continue attempts to restore a viable population along River Tamar (previously reduced to one location).</li> <li>• Liaise with Natural England regarding annual monitoring of both the 'native' clump and introduced clumps.</li> </ul>	<p>Cornwall Wildlife Trust</p> <p>Devon Wildlife Trust</p> <p>Valley Volunteers</p>
<p><b>Bastard balm</b></p> <ul style="list-style-type: none"> <li>• Survey and monitor known populations (e.g. as part of County Wildlife Sites recovery action) and resurvey periodically for new records.</li> <li>• Habitat management at all extant and historical sites – encourage woodland management, creating open conditions through coppicing and scrub clearance but avoiding grazing, which will benefit bastard balm and other ground flora species.</li> </ul>	
<p><b>Invertebrates</b></p> <p><b>Heath fritillary</b></p> <ul style="list-style-type: none"> <li>• Continue to support ongoing conservation efforts to build on the success of Butterfly Conservation's Saving the Heath Fritillary in the Tamar Valley project, including the delivery of UK BAP targets for this species.</li> <li>• Actively support efforts to improve site management in the Tamar Valley to enhance wildlife and the heath fritillary population in particular, by increasing habitat suitability and the quality and extent of breeding habitat patches, including identifying sites with longer term reintroduction potential.</li> <li>• Seek opportunity to support work with landowners, e.g. explore long-term habitat management options through HLS etc. where viable/practical.</li> </ul>	<p>Natural England</p> <p>Butterfly Conservation</p> <p>Buglife</p> <p>Calstock Wetlands Management Group</p> <p>Plymouth Marine Laboratory</p> <p>Valley Volunteers</p>
<p><b>'Calstock' prawn</b></p> <ul style="list-style-type: none"> <li>• Liaise with Calstock Wetlands Management Group and Plymouth Marine Laboratory regarding survey of the 'Calstock' prawn population (<i>Palaemon longirostris</i>), as part of the ongoing monitoring of the new intertidal habitat at Calstock.</li> </ul> <p><b>Note:</b> we shall also seek opportunities to support other initiatives focussing on the recovery of important invertebrate populations, e.g. through Buglife's B-Lines Network and Important Invertebrate Areas work.</p>	<p>Local community wildlife groups</p>
<p><b>Amphibians</b></p> <p><b>Common toad</b></p> <ul style="list-style-type: none"> <li>• Promote wildlife-friendly gardening to create favoured amphibian habitat and encourage pond creation and sensitive management (through action for freshwater priority habitats, etc.).</li> <li>• Good citizen science/community outreach potential to help update information on toad population state/distribution in the AONB including identifying pond habitat and annual toad (and frog) migratory crossing points (January to April).</li> <li>• Register crossings on Froglife's Toads on Roads project portal, which helps coordinate local Toad Patrols.</li> </ul>	<p>Local reptile and amphibian groups</p> <p>Froglife</p> <p>Cornwall Wildlife Trust</p> <p>Devon Wildlife Trust</p> <p>Local community wildlife groups</p> <p>Valley Volunteers</p>







Species-related action	Potential partner organisations, etc
<p><b>Reptiles</b></p> <p><b>Adder</b></p> <ul style="list-style-type: none"> <li>Population known to live in isolated fragmented woodland heath and scrub areas, including old mine sites. Explore opportunity to survey with local expert groups to establish state and distribution of the population, before considering action to manage and enhance habitat favoured by this shy species.</li> </ul>	<p>Local reptile and amphibian groups</p> <p>Historic England</p> <p>Cornwall and West Devon mining Landscape World Heritage Site</p> <p>Cornwall Council/Cormac</p> <p>Tamar Community Trust</p>
<p><b>Birds</b></p> <p><b>Avocet</b></p> <ul style="list-style-type: none"> <li>Work with expert partners to ensure that the overwintering habitats in the Tamar Valley, which all wildfowl and wader species rely on, are in good condition. Including seeking opportunities for further wetland habitat creation.</li> </ul>	<p>RSPB</p> <p>British Trust for Ornithology</p> <p>Forestry Commission</p> <p>Woodland Trust</p>
<p><b>Nightjar</b></p> <ul style="list-style-type: none"> <li>Work with expert partners to support sensitive habitat management of sites frequented by nightjars in the Tamar Valley.</li> <li>Identify opportunities to increase suitable habitat through appropriate woodland management elsewhere, in areas where nightjars are likely to make use of new habitat.</li> </ul>	<p>Tamar Community Trust</p> <p>Cornwall and West Devon mining Landscape World Heritage Site</p>
<p><b>Willow tit</b></p> <ul style="list-style-type: none"> <li>Support current efforts to expand willow tit conservation action in the Tamar Valley, including further surveying and provision of nest boxes.</li> <li>Work with expert partners to identify and support opportunities to increase suitable habitat and wider connectivity through sensitive management of wetland scrub and woodland habitat.</li> </ul>	<p>National Trust</p> <p>Calstock Wetlands Bird Watchers Group</p> <p>Calstock Parish Council</p> <p>Friends of the Tamar Valley</p> <p>University of Plymouth</p> <p>Valley Volunteers</p>
<p><b>Fish</b></p> <p>A number of key expert partners and organisations are working to improve the quality of river habitats and to protect and enhance freshwater fish species populations.</p> <p><b>Allis shad</b></p> <ul style="list-style-type: none"> <li>Work in partnership with stakeholders and expert organisations to identify opportunities where Tamar Valley AONB can support their work to improve conditions and outcome for salmonids while residing in the AONB's rivers.</li> </ul>	<p>Local fishing clubs</p> <p>Environment Agency</p> <p>Natural England</p>
<p><b>Salmonids (represented by the Atlantic salmon)</b></p> <ul style="list-style-type: none"> <li>Work in partnership with stakeholders and expert organisations to identify opportunities where Tamar Valley AONB can support their work to improve conditions and outcome for this species while residing in the AONB's rivers.</li> </ul>	<p>Tamar Catchment Partnership</p> <p>Westcountry Rivers Trust</p>

Species-related action	Potential partner organisations, etc
<p><b>Mammals</b></p> <p><b>Greater horseshoe bat</b></p> <ul style="list-style-type: none"> <li>Liaise with other Devon AONBs regarding collaboration on landscape scale conservation work for this species, learning from, and building on the legacy of the Devon Wildlife Trust's Devon Greater Horseshoe Bat project.</li> </ul>	<p>Natural England</p> <p>Devon Wildlife Trust</p> <p>Cornwall Wildlife Trust</p> <p>Environment Agency</p>
<p><b>Harvest mouse</b></p> <ul style="list-style-type: none"> <li>Seek lessons learnt from the Devon Harvest Mouse project regarding effective co-ordination and successful approaches to collecting data and engaging the public. Follow up on previous discussions with Devon Harvest Mouse project regarding potential work in the Tamar Valley.</li> <li>Support creation of wildlife-friendly field margins, including reducing grazing pressure to allow favourable conditions for this species to recover.</li> <li>Engage with local mammal groups to discuss opportunities to support their survey and monitoring work.</li> </ul>	<p>Cornwall Mammal Group</p> <p>Devon Mammal Group</p> <p>The Bat Trust</p> <p>Local bat groups</p> <p>National Trust</p>
<p><b>Hazel dormouse</b></p> <ul style="list-style-type: none"> <li>Promote and support delivery of the People's Trust for Endangered Species National Dormouse Monitoring Programme.</li> <li>Action to increase knowledge of dormouse presence in the AONB needed. New dormouse project underway on the Bere peninsula in 2023 to establish its presence there. Explore other opportunities with National Trust, Woodland Trust, etc. including volunteer/citizen science opportunities.</li> </ul>	<p>Woodland Trust</p> <p>People's Trust for Endangered Species</p> <p>Local hedgehog rescue services</p>
<p><b>Hedgehog</b></p> <ul style="list-style-type: none"> <li>Collaborate with local mammal groups to support their survey and monitoring and liaise with other partners carrying out volunteer-led species survey/monitoring, e.g. Woodland Trust.</li> <li>Excellent community/citizen-science potential – link with, and support/promote, existing campaigns, e.g. Devon Wildlife Trust's Help the Hog and Cornwall Wildlife Trust's Operation Hedgehog.</li> <li>Promote the annual Hedgehog Awareness Week, organised by the British Hedgehog Preservation Society. It aims to highlight the problems hedgehogs face and how you can help them. Support and promote local hedgehog rescue services.</li> </ul>	<p>Local community wildlife groups</p> <p>Valley Volunteers</p>
<p><b>Water vole</b></p> <ul style="list-style-type: none"> <li>Explore opportunity to develop pilot survey and monitoring project with local mammal groups, including mink survey.</li> </ul>	



A Lynher Valley dormouse © Jen Bousfield (under license)



# Engagement

**Our Nature Recovery Plan can only be delivered with the help of our local communities.**

We will use our nature recovery actions to actively support one of our partner organisations, Natural England's Building Partnerships for Nature's Recovery: Connecting People with Nature Programme [1], which aims to ensure;

- More people connected with, and acting for, the natural environment
- More people spending time in nature
- More people benefitting from the natural environment
- Better quality and accessible nature-rich places close to where people live
- Better access to high-quality nature further afield
- More resilient environment that protects people from environmental harms, e.g flooding, air pollution

We will work with our partners who share this commitment to enabling wider community involvement. A key objective of our Nature Recovery Plan is to take action to increase opportunities for people to connect with nature. We want people to enjoy, understand and access the natural environment, by providing meaningful opportunities to take positive action for, and to connect more with nature, with all the health and wellbeing benefits that this brings.

We will continue to engage with the National Health Service and related social services to link with the green and blue social prescribing agenda. This is good for people and it's good for nature too.

Nature recovery and environmental projects with citizen science elements offer great opportunities to engage and involve children and young people through schools, colleges, Scouts, Girlguiding, young farmers and other groups, as well as community groups and people of all ages, abilities and backgrounds. We will work tirelessly to link our Nature Recovery Plan, and our associated projects, programmes and services, to our commitments to equality, diversity and inclusion.

We will encourage new ideas and our projects will be designed to enable volunteering and active engagement and to build a network of nature recovery champions.

With increased access comes the need for wildlife-sensitive behaviour and responsible behaviour. We want people to connect with nature and visit our wild spaces, but it is important that some natural areas should be prioritised for wildlife over people, e.g. environmentally-sensitive areas and breeding grounds etc. and we need to ensure that increasing access does not come at a cost to wildlife through disturbance.

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<sup>1</sup> Building Partnerships for Nature's Recovery – [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/924682/Natural-England-building-partnerships-for-natures-recovery.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/924682/Natural-England-building-partnerships-for-natures-recovery.pdf)

# Monitoring and Evaluation

The Tamar Valley AONB Partnership will review progress against our Nature Recovery Plan at least every 12 months.

The Partnership agreed the following key metrics and mechanisms by which to measure our progress:

- Active nature recovery projects instigated or actively supported by the Tamar Valley AONB (including those delivering multiple/additional outcomes) – number.
- Additional funding/resources raised in support of nature recovery p.a. - £ equivalent value.
- Demonstrable habitat/connectivity improvement – estimated ha (using landcover mapping or similar best available technique).
- Evidence of species improvement – structured monitoring from best available baseline data.

Our monitoring and evaluation mechanisms will align with Natural England principles and requirements as appropriate, and will link to existing and developing monitoring frameworks and targets for AONB Management Plans, Local Nature Recovery Strategies, ELMs, and 'A Green Future: Our 25 Year Plan to Improve the Environment.'

We will report on our progress publicly via our AONB Partnership and Executive.







Produced by the Tamar Valley AONB, 2023

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