

Appendix 7 – Roll up our sleeves for delivery – technical information and resources

In this Appendix we showcase how each of the Priorities and their Actions can be delivered. The ideas and resources here are by no means comprehensive so any new ideas and thinking can be incorporated over time to inform our ambition for a successfully delivered LNRS in Cheshire and Warrington.

Each section covers a priority or theme and the actions within each plus the activities, which will support delivery of the actions and ultimately the priority for nature recovery. Action codes shown **in bold** are mapped on the Local Habitat Map: [Cheshire & Warrington Local Habitat Map](#)

Habitat Types

Woodlands, Hedgerows and Trees
Grassland and Heathland
Watercourses
Peat and Wetlands

Themes

Farmland
Urban
Nature based solutions

Species

The Nature Recovery Principles for delivery stated in the main LNRS document are repeated below for ease of reference:

The following set of ten Cheshire and Warrington nature recovery delivery principles need to be applied to policy, funding and delivery.

1. Right habitat in the right place for the right reason	Consult with the Local Nature Partnership. Ensure that habitat creation proposals occupy suitable sites and do not damage or displace existing quality habitats. Sensitive habitat restoration should be the go-to option for sites that already nature-rich.
2. Follow best practice and standards	Comply with legal requirements, standards, guidance, best practice, as well as required permits and licences when creating and restoring habitats, including taking account of relevant consents or assents informed by Natural England on actions delivered on land in or around SSSIs. Ensure nature is at the heart of urban regeneration and new development. An example of good guidance is the UK Forestry Standards. An example of good practice, in addition to the UK forestry standards, includes: July 2023 Decision support framework for peatland protection England_Open_Habitats_Policy.pdf
3. Think about long-term resilience	Put nature at the heart of new development, so nature and places are resilient. Plan at the start for long-term habitat management, maintenance and funding. Ensure that schemes are resilient to future climate change impacts, pests and diseases.

4. Be ambitious & evidence-led	Ensure that any nature restoration or any new habitat project is evidence- led and ambitious in its aims and objectives. Understanding the geology, soil type and biodiversity/ archaeological importance of a site before undertaking any habitat improvement by seeking expert help.
5. Maximise multiple benefits	Communicate and maximise the wider benefits of nature recovery actions such as improving health and wellbeing, storing carbon, or reducing flood risk.
6. Involve residents and communities	Work collaboratively with residents, landowners, farmers, partnerships and business for nature's recovery.
7. Improve responsible access	Support and work towards fair and improved access for individuals and communities (where appropriate), so everyone has responsible and equitable access to nature.
8. Raise awareness	Ensure that the public are made aware of nature's recovery and the importance of their support e.g. biosecurity, help identifying species, volunteering, Countryside Code etc.
9. Support farmers and landowners	Support, and work in partnership with farmers and landowners, for example to encourage the uptake of Environmental Land Management Schemes. Help farmers and landowners to make informed decisions based on expert advice and knowledge. Go to: Funding for farmers, growers and land managers - GOV.UK
10. Seek expertise – ask an expert	Whenever thinking of creating or restoring a habitat at a landscape scale, experts should be involved to help identify the best opportunities for biodiversity; seek expert guidance on large and small projects
11. Make it cohesive, join it up and blur the boundaries	Nature has no boundaries – think through how actions can connect – speak to the neighbours, create blurry edges, and a diverse patchwork of habitats. For new habitat creation along rivers, discuss water management with neighbours to ensure consistency and collaboration in catchments.

Woodlands, Hedgerows and Trees

Priority W1 More, bigger, better and joined up wildlife-rich woodland networks across the landscape

ACTIONS:

W1.1 Establish sustainable, biodiversity-positive management of all woodland, increase % open space, resilience to pests, disease and climate change regardless of size.

W1.2 Establish buffers to woodlands using a variety of methods.

W1.3 Create woodlands to UK Forestry Standard

W1.4 Create and restore clough woodlands for natural flood management and increased biodiversity

W1.5 Increase connectivity between existing woodlands through different suitable habitats.

W1. 6 Safeguard mosaics (different habitats within one landscape) to complement and support woodland through good design and management.

W1.7 Increase the biodiversity in all woodlands

W1.8 Encourage positive management of woodlands by encouraging renewed interest in extracting timber for products and sale.

W1.9 Manage and minimise invasive, non-native species and deer impacts on new / current Woodland and Scrub / Hedgerow habitats.

W1.10 Create and expand wet woodland in appropriate places

W1.11 Create and maintain woodland scrubby edge habitats

W1.12 Manage wet woodlands to promote a varied age structure and species diversity alongside maintaining a high-water table



How could we deliver more bigger better and joined up wildlife rich woodland networks across the landscape?

- ✓ Seek funding and support to encourage more interest and skills in woodland management
- ✓ Use the UK Forestry Standard in all woodland management design
- ✓ Consider replacement with climate-resistant native and non-native trees.
- ✓ Encourage direct seeding or planting of appropriate ground flora (such as Bluebells, Wood Anemones and Foxgloves) in new woodland as canopy matures.
- ✓ Improve forestry knowledge and skills amongst farmers, contractors and volunteers.
- ✓ Work with the farming community and foresters to develop a local timber market to help bring many of our woodlands back into positive management.
- ✓ Create and promote opportunities to build skills for conservation, forestry or land management sectors, to build capacity and develop future stewards of nature.

Resources:

[The UK Forestry Standard](#)

[July 2023 Decision support framework for peatland protection](#)

[Forestry England: Managing Deer in Forests](#)

[Forest Research: Invasive species – practical considerations](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

[England Open Habitats Policy.pdf](#)

Priority W2 A network of well-connected, well managed and restored ancient & PAWS woodlands, veteran, orchards and notable trees

ACTIONS:

W2.1 Safeguard and encourage positive management of existing ancient woodlands and plantation on ancient woodland sites (PAWS)

W2.2 Create woodlands, woodland belts and hedgerows to buffer and connect existing ancient woodland sites.

W2.3 Improve protection of and safeguard all veteran and exceptional mature trees

W2.4 Establish new trees that can become veteran and exceptional trees of the future.

W2.5 Record and map existing veteran trees and ancient woodlands

W2.6 Re-establish voluntary tree wardens or community volunteers across Cheshire to help record, safeguard and encourage the positive management of veteran or exceptional trees and orchards.



How could we deliver a network of well-connected, well managed and restored ancient woodlands and Plantation on ancient woodland sites (PAWS), veteran trees, orchards and exceptional trees?

- ✓ Develop the concept of Farmer-forester with landowners and agricultural colleges to provide broader training and support for landowners and their employees and contractors regarding woodland management.
- ✓ Go beyond current root protection areas standard to retain Veteran and exceptional trees as part of development, where possible requiring a buffer zone of the full falling distance in designs (e.g. houses not built too close, to avoid future pressure from residents to remove due to concerns over liability or lack of light).
- ✓ Planners and developers encouraged to update Design Codes to reflect the above and tree risk management issues such as proximity to highways.
- ✓ Encourage collection of seeds with local provenance to ensure future woodland, Veterans and exceptional specimen trees, Cheshire and regional fruit varieties are perpetuated across the county, potentially through a network of community and private orchards.
- ✓ Follow the below *Exceptional trees precursor indicators to Veteran status document*.

Resources:

[Managing ancient and native woodland in England](#)

[The UK Forestry Standard](#)

[State of the UK's Woods and Trees 2021](#)

[What is a notable \[exceptional\] tree? - Ancient Tree Inventory](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

[Exceptional Trees Precursors to Veteran Status \(1\).pdf](#)

Priority W3. Urban areas with a network of trees, hedges and woodland, sustainably managed, delivering nature recovery and more environmental benefits to residents

ACTIONS:

W3.1 Better safeguard and manage tree assets in urban areas and only remove as a last resort

W3.2 Establish and manage tree assets as a continuous viable tree cover.

W3.3 Plant suitable replacement urban trees, native (UKISG nursery) or non-native, where planted urban trees are coming to end of life.

W3.4 Create and safeguard a network of urban trees and woodlands.

W3.5 Safeguard, retain and improve conditions for exceptional mature trees in the urban environment.

W3.6 Prevent damage to retained trees.

W3.7 Safeguard, manage and expand community woodlands.

W3.8 Raise awareness of the benefits of trees, hedges and woodland.



How could we deliver urban areas with a network of trees, hedges and woodland, sustainably managed, delivering nature recovery and more environmental benefits to residents?

- ✓ Map and record our trees to better understand and ensure better management of the trees we have, including condition, age and risk within major urban and rural areas.
- ✓ Local Authority Tree and Woodland Strategies should be updated and in place by 2030 for 2050 and beyond with appropriate resources to ensure good practice.
- ✓ Update Planning Policy to work towards a minimum of 15% GI cover in all wards as part of new development and regeneration schemes, with potential use of urban greening factor applied to boost overall provision of trees and greenspaces (see Urban section below)
- ✓ Carry out better, more joined up management of trees in the urban environment.
- ✓ Seek resources to re-establish voluntary tree wardens or community volunteers across Cheshire to record exceptional trees, hedgerows and orchards and influence their positive management.

Resources:

[Highway tree management: operations note 51 - GOV.UK](#)

[The Tree Council: Trees and Woodland Strategy Toolkit](#)

[NE Urban Greening Factor Evidence](#)

[Tree Council Branching Out Fund](#)

[Mersey Forest: Community Forest](#)

[Best Street Trees Resilience.xlsx](#)

[Ancient Trees - Woodland Trust](#)

[What is a notable \[exceptional\] tree? - Ancient Tree Inventory](#)

Priority W4 More, bigger, better and joined up hedgerow networks across the landscape

ACTIONS:

W4.1 Safeguard and enhance existing hedgerows to achieve species diversity and enhance landscape value.

W4.2 Create or restore 5,000 km of additional species rich hedgerows.

W4.3 Promote benefits of hedgerows and their positive management across Cheshire and Warrington.

W4.4 Better value and safeguard and increase the number of veteran and exceptional trees in our hedgerow network.



How could we deliver More, bigger, better, and joined up hedgerow networks?

- ✓ Encourage communities and volunteers to develop skills and help landowners survey and identify areas for new hedgerows or to restore existing hedgerows.
- ✓ The Local Nature Partnership can communicate and promote the value of hedges and provide good management guidance (e.g. 2/3 year cutting regime and an 'A' shape)
- ✓ Identify and promote species mix appropriate to local areas and to be resilient to future climate.
- ✓ Update Planning Design Codes to prioritise native hedgerows instead of fences and other physical boundaries as part of development (other than in designated landscape and conservation areas where historic walls or similar features should be promoted).

Resources:

[Hedgerow management rules: cutting and trimming - GOV.UK](#)

[How to manage a hedgerow for wildlife | The Wildlife Trusts](#)

[Hedgerow Management Advice | Hedgelink](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

Grassland and Heathland

Priority G1 More, bigger, better and joined up nature-friendly and semi-natural grasslands for people and pollinators

ACTIONS:

G1.1 Create and enhance a network of species-rich grassland sites

G1.2 Create more wildflower rich grasslands, encourage rotational grazing practices and reduced fertiliser use.

G1.3 Create new species rich grasslands as part of public and private development.

G1.4 Better manage grasslands to increase species and sward diversity.

G1.5 Promote better grazing practices for different wildlife-rich grassland communities

G1.6 More grasslands managed by hay cuts or cut-and-collect in urban areas, to ensure quality can be sustained.

G1.7 Promote nature friendly gardening.

G1.8 Support communities to adopt public land to manage as species rich grasslands.

G1.9 Promote nature friendly public space and linear features (i.e. roads, railways, cycle routes, canals).

G1.10 Use Citizen Science to increase identification and recording of species across our diverse grasslands.

G1.11 Promote awareness of the value and role species-rich grasslands can play

G1.12 Encourage pesticide use to be minimised



How could we deliver more, bigger, better, and joined up nature friendly and semi-natural grasslands for people and pollinators?

- ✓ Alter mowing practices, to “hay cuts” or “cut and collect” management (this stops the cut grass from rotting down and making the soil too fertile, then range of species and the rarer flowers and grasses get out competed by nettles, thistles etc).
- ✓ Explore solutions to costs of transporting and disposing of cuttings to help make it more financially viable for farmers, landowners and councils. E.g. use grass cuttings for biomass energy generation (the cost of removing and transporting cut grass is often the main barrier to getting more species rich areas created and under the right management)
- ✓ Encourage appropriate nature friendly gardening practices to promote more natural gardens and verges by suggesting seed mixes for urban and rural areas and different soils.
- ✓ Set up a Future Farming Group to test and promote good practices, focusing on how farming business can be improved through nature-based solutions (identifying win/wins – for example, species rich headlands can improve adjacent field crop yields)

Resources:

[Plantlife: managing meadows](#)

[Plantlife: managing road verges and greenspace](#)

[Defra SFI guidance for improved grasslands](#)

[Pesticide Action Network](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

Priority G2 Waxcap grasslands, coastal and floodplain grazing marsh are extended and restored.

ACTIONS:

G2.1 Enhance waxcap grasslands.

G2.2 Establish appropriate conservation grazing over large areas.

G2.3 Restore and expand the area of coastal and floodplain grazing marsh

G2.4 Map and safeguard existing known locations of waxcap grasslands

G2.5 Carry out appropriate management of sites depending on location.

G2.6 Maintain waxcap grassland through appropriate livestock grazing or haymaking but avoid soil damage where possible.

G2.7 Conduct research to locate sites of importance such as nm mapping long established undisturbed grasslands



How could we deliver waxcap grasslands, coastal and floodplain grazing marsh extension and restoration?

- ✓ Expand the area of grazing marsh by helping landowners to re-introduce appropriate water level management and get greater diversity of sward structure on larger sites.
- ✓ Establish a baseline of waxcap grassland sites in the county to help with its conservation and management.
- ✓ Promote better grazing practices for different grassland communities (e.g. waxcap grasslands need grazing to keep the grass short, but don't need a lot of animals compacting the soil, or nutrients building up from dung).
- ✓ Ensure that managed realignment for flood defence or the conservation of intertidal habitat such as mud flats and salt marsh do not compromise the area or quality of coastal and fluvial grazing marsh.
- ✓ Refer to Plantlife guidance on appropriate management for waxcap and grassland fungi including livestock grazing
- ✓ Refer to Buglife grazing marsh management guidance for appropriate management and grazing

Resources:

[Plantlife: waxcaps and grassland fungi](#)

[Buglife: coastal and floodplain grazing marsh management](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

Priority G3 More, bigger, better and joined up heathland

ACTIONS:

G3.1- Restore and create wet heath

G3.2 Create and enhance a network of heathland sites.

G3.3 Manage and maintain heathland through appropriate conservation grazing practices.

G3.4 Manage and expand diverse heathlands for key species identified in Cheshire.

G3.5 Promote the value of heathland.



How could we deliver more, bigger, better and joined up Heathland?

- ✓ Connect and share best management practice and learning across lowland and upland heathland landowners.
- ✓ Require mineral extraction and landfill to be restored to the most appropriate habitat (i.e. heath in some locations) as a condition of planning consent.
- ✓ Encourage introduction of important species to existing and new heathland sites (e.g. Crowberry, Bilberry, Gorse and Cross-leaved Heath (see photo)).
- ✓ Recruit and promote volunteers to help with Citizen Science to get a better understanding of the extent and quality
- ✓ Refer to relevant Buglife guidance for appropriate upland and lowland management and grazing

Resources:

[Buglife: lowland heathland management](#)

[Buglife: upland heathland management](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

Priority G4 Moorland areas supporting species and structurally diverse mosaic of habitats

ACTIONS:

G4.1 Enhance and manage moorland through plant reintroductions and translocations.

G4.2 Manage recreation to safeguard our moorlands.

G4.3 Promote awareness of moorland habitats and why they are important.

G4.4 Establish a network of gully blocking and re-profiling areas to raise the water table.

G4.5 Enable heather to complete its natural cycle



How could we deliver moorland areas supporting species and structurally diverse mosaics of habitats?

- ✓ When considering 'supporting species' note the need for structural diversity of species including as referenced in Action G4.1
- ✓ Promote and encourage suitable plant reintroduction or translocations.
- ✓ Peak District National Park Authority and Local Nature Partnership partners to collaborate with landowners to establish a network of gully blocking areas to raise the water table to more natural levels, and gully reprofiling.
- ✓ Use the moorland edge to encourage the creation and expansion of wet and clough woodland.
- ✓ Refer to relevant guidance and resources to inform management of moorlands including which habitats and species are most likely to increase diversity

Resources:

[GOV Management of Moorland](#)

[PDNPA Structurally diverse upland mosaics](#)

[Woodland Trust: wet woodland](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

Priority WA1 Healthier and resilient watercourses with more abundant native wildlife

ACTIONS:

WA1.1 Create interventions in the landscape to slow the flow, attenuate water, and reduce run-off.

WA1.2 Re-connect rivers and estuaries with their floodplains.

WA1.3 Facilitate identification, prevention, regulation and enforcement of pollution by relevant agencies

WA1.4 Remove or adapt barriers to allow fish and other river species full access to our rivers and streams.

WA1.5 Enhance natural features in rivers for biodiversity benefits.

WA1.6 Ensure better natural recharge of water bodies during low rainfall periods.

WA1.7 Create and restore a variety of riverside (riparian) and in-channel habitats.



How could we deliver healthier and resilient watercourses with more abundant native wildlife?

- ✓ Create interventions in the landscape to slow the flow and reduce run off in line with the guidance and resources.
- ✓ Facilitate identification, regulation and enforcement against pollution by relevant agencies
- ✓ Create a variety of river and riverside adjacent habitats e.g. clough woodlands, neutral grasslands and wetlands to re-connect our rivers and canals with the wider ecosystem.
- ✓ Encourage better design and planned management of Sustainable Drainage Systems and permeable surfacing as part of development through planning policy and design codes.
- ✓ Develop a communication campaign to help residents and landowners create sustainable water practices in their home and land to prevent increased runoff

Resources:

[EA Your Watercourse: your rights and roles](#)

[Rivers Trust: 5 easy ways to revive your river and support NBS](#)

[Forest Research: creating and managing riparian woodland](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

Priority WA2 The whole river catchment, from source to sea, functions as naturally as possible

ACTIONS:

WA2.1 Re-naturalise rivers by re-connecting rivers to their floodplains.

WA2.2 Create a mosaic of habitats in the catchment that holds and slowly releases water over time to refill our waterbodies for nature and people

WA2.3 Reduce pollution in our watercourses and catchments.

WA2.4 Enhance canals by improving and creating better habitats for nature

WA2.5 Restore natural processes of erosion, transportation and deposition through the implementation of nature-based solutions



How could we deliver whole river catchment, from source to sea, functioning as naturally as possible?

- ✓ Create a pilot investment scheme for the Weaver-Gowy catchment (as a base for wider catchments establishment) to improve water quality, slow the flow during high rainfall events and ensure a more natural slow release of water from habitats in the landscape at times of low rainfall to support nature, provide water for businesses and society and to help defend communities from flooding.
- ✓ When principles, investment and solutions are demonstrated, roll out to other catchments.
- ✓ Create a more diverse selection of habitats in the catchment to protect soils, reduce nutrient runoff and increase groundwater absorption.
- ✓ Work together on suitable reintroduction of important species e.g. European Eel and Water Vole.
- ✓ Support development and delivery of diffuse water pollution management plans.
- ✓ Use relevant resources and guidance to inform delivery of actions

Resources:

[Rivers Trust: Cleaning up rivers](#)

[Rivers Trust: River Restoration](#)

[Canal & River Trust: canal and river wildlife](#)

[GOV: guidance on creating new estuarine and coastal habitats](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

[Expanding the role of the private sector in nature recovery: call for evidence - GOV.UK](#)

Priority WA3 Our estuaries are restored for nature and safeguarded by local communities

ACTIONS:

WA3.1 Enhance and create habitats along our estuaries.

WA3.2 Manage and re-align flood defences to restore/create intertidal habitats.

WA3.3 Reduce the impact of public access on feeding and nesting birds.



How can our estuaries be restored for nature and safeguarded by local communities?

- ✓ Work with landowners to create and restore intertidal habitats along the estuaries
- ✓ Work with communities along the river catchments to reduce litter pollution
- ✓ Establish a robust communication campaign, similar to the countryside code of conduct to help reduce the impact of public access on breeding waders.

Peatlands and wetlands

Priority P1 Peatland priority habitat restored to be more climate resilient and buffered with semi-natural habitats

ACTIONS:

P1.1 Where possible, peatland habitat should be restored. Where development is proposed, it should not create harm, which cannot be mitigated.

P1.2 Improve the condition and functioning of upland peatlands through appropriate measures to re-wet habitats, to revegetate bare peat, to establish appropriate vegetation, and to stabilise areas of erosion, reducing carbon emissions and creating conditions for future peat formation, carbon sequestration and improved natural flood management

P1.3 Increase lowland raised bog restoration.

P1.4 Enhance and restore blanket bog plant diversity

P1.5 Develop opportunities for local businesses to invest in peat restoration



How could we restore peatlands and buffer them with semi-natural habitats?

- ✓ Create a carbon and nature-based investment scheme for Lowland and Upland Peat, for innovative habitat restoration and water management.
- ✓ Encourage positive management of ditches and watercourses near wetlands to ensure they are not impacted by nitrogen, phosphates or invasive species.
- ✓ In some areas, planting trees and scrub can help stabilise blanket bog edge or larger gullies.
- ✓ Seek resources to rewet Dark Peak blanket bogs, working with willing landowners, to restore peat and improve biodiversity.
- ✓ Stabilise remaining areas of bare peat using geotextile or heather brash and revegetate using grass nurse crops.
- ✓ Restore traditional open mosaic peatland by managing deer within the Peak District National Park Authority.
- ✓ Restore the full range of blanket bog plants by reducing heather or grass dominance, through different methods. Some species may need reintroduction.

Resources:

[July 2023 Decision support framework for peatland protection_ Great Manchester Wetlands \[includes parts of Warrington\]](#)
[Wildfowl & Wetlands Trust: Restoring Wetlands](#)
[Sites of special scientific interest: managing your land - GOV.UK](#)

P2 More, bigger, better and joined up wetland habitats

ACTIONS:

P2.1 Target wetland creation in naturally wet areas

P2.2 Expand existing wetlands and species diversity through restoration

P2.3 Re-introduce and increase the sphagnum moss and companion species cover across our meres and mosses.

P2.4 Minimise recreational disturbance, where possible

P2.5 Create buffer zones around known sites to prevent damage from surrounding land use practices.

P2.6 Safeguard, restore and improve wetland habitat, providing buffers to protect water quality and by managing invasive non-native species.



How could we ensure more, bigger, better and joined up wetland habitats?

- ✓ Create a carbon and nature-based investment scheme for Lowland and Upland peatlands, for innovative habitat restoration and water management.
- ✓ Restore the full range of blanket bog plants by reducing heather or grass dominance, through different methods. Some species may need reintroduction.
- ✓ Maintain sphagnum moss lawns by controlling water levels and avoiding drying out/scrubbing up.
- ✓ Encourage positive management of ditches and watercourses near wetlands to ensure they are not impacted by nitrogen, phosphates or invasive species.
- ✓ Create buffer zones around known sites to prevent damage from surrounding land use practices
- ✓ Safeguard, restore and improve wetland habitat, providing buffers to protect water quality and by managing invasive non-native species.
- ✓ Encourage the creation and restoration of new and 'ghost' ponds through existing Environmental land management schemes and District level licensing schemes

Resources:

[July 2023 Decision support framework for peatland protection](#)

[Great Manchester Wetlands \[includes parts of Warrington\]](#)

[Paludiculture: profitable production of wetland crops](#)

[Woodland Trust: wet woodland](#)

[District Level Licensing: pond creation](#)

[Wildfowl & Wetlands Trust: Restoring Wetlands](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

Nature Based Solutions

NBS1 Nature, people and economy thriving through more, bigger, better and joined up Green and Blue Infrastructure

ACTIONS:

NBS1.1 Hedgerow creation prioritised over fencing within new development with a min 1-1.5m width (see hedgerow actions)

NBS1.2 All individual trees removed should be replaced with at least two trees (removal of veteran or exceptional trees is not to be permitted unless risk is evidenced)

NBS 1.3 Create and/or retrofit new green roofs/walls and spaces where feasible

NBS1.4 Mitigate the impacts of pollution from waste, transport and landfill for the benefits of nature and people

NBS1.5 Design buildings and infrastructure with nature benefits and improved placemaking in mind

NBS1.6- Increase urban tree canopy cover, to provide multiple benefits by working towards a 15% tree (or GI) cover target for all wards by 2035, prioritising action in wards of highest disparity.

NBS 1.7 Diversify amenity grassland in urban greenspaces to provide more semi-natural habitats and multi-functional greenspaces

NBS1.8 Safeguard and expand blue/green corridors (for multiple benefits) within urban areas, to connect with broader rural landscape

NBS1.9 Encourage more nature in school grounds, well-designed with maintenance in mind

NBS1.10 Target habitat creation or enhancement in urban areas



How could we ensure nature, people and economy thriving through more, bigger, better and joined up Green and Blue Infrastructure?

- ✓ Developers across Cheshire and Warrington should be encouraged to join [Homes for Nature](#) as a minimum and commit to installing bird-nesting brick or boxes for every new home built, as well as hedgehog highways as standard on every new development.
- ✓ Planners and developers should promote and use the [Building With Nature Standards](#) in placemaking.
- ✓ Explore installing green roofs on bus shelters, following the success of the Chester bus interchange station, creating pollinator and bee highways in urban areas.
- ✓ Stipulate use of 'warmer' wildlife friendly lighting and shielding or sensor activated external security lighting, particularly along our watercourses and in developments.
- ✓ Promote the positive role of green infrastructure in urban areas for nature, to provide environmental, economic and social benefits such as aiding urban cooling, protecting people from pollution and particulates from roads.
- ✓ Expand the Networks for Nature project to connect with Warrington and Cheshire East, linking towards the Bollin along the M56 corridor (This may include improvements from Highway England).
- ✓ Promote the benefits of functional green and blue spaces for a vibrant economy.
- ✓ Make nature accessible within a 15-minute walk of everyone's home

- ✓ Create Sustainable Drainage Systems (SuDS) and permeable surfacing for nature, improved amenity spaces and surface water management
- ✓ Install more Blue and Green Infrastructure in new developments
- ✓ Create communal greenspace with natural features to support stronger connections between nature and people, particularly in areas of inequality.
- ✓ Provide online map and directory to inform opportunities to engage with nature through volunteering or to support green social prescribing
- ✓ Promote trailblazers and inspire wider action and involvement by celebrating communities, individuals, organisations and businesses. e.g. Organising Annual Wilder Cheshire Awards.
- ✓ Seek opportunities for our next generation to experience and build a positive and responsible relationship with nature through outdoor learning and/or Forest School provision across early years.
- ✓ Support communities and local groups to take action for nature on their doorstep.
- ✓ Create sensory gardens, ponds, meadows and woodlands on school grounds to improve biodiversity, aid education, improve mental and physical wellbeing and for young people to build a positive relationship with nature at an early age.

Resources:

[Hedgerow Management Advice | Hedgelink](#)

[Plantlife: managing road verges and greenspace](#)

[NE GI Planning & Design Guide](#)

[SUDS Design Guide](#)

[Highway tree management: operations note 51 - GOV.UK](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

NBS 2 Improved biodiversity by mitigating specific sources of pollution

ACTIONS:

NBS2.1 Remove or mitigate against light pollution, particularly along the river and canal network

NBS2.2 Mitigate pollution from agriculture, waste, industry and recycling management processes.



How could we deliver improved biodiversity by mitigating specific sources of pollution?

- ✓ As part of the development process, developers should be encouraged to implement ‘warm’ wildlife friendly lighting, sensors and shielding of external security lighting and required to do this near known important bat feeding and roosting locations.
- ✓ Where Councils consider replacement of lighting with warmer wildlife friendly lighting.
- ✓ Local Nature Partnership to work towards a “dark sky standard”
- ✓ Work with interested partners to see how Anaerobic Digestion can address slurry management

Resources:

[CPRE Light Pollution in Cheshire](#)

[National Planning Practice Guidance: ecological impacts of lighting](#)

[Peak District National Park: Dark Skies](#)

[CaBa Guidance on Biodiversity and Nature Based Solutions](#)

[Government: silage and slurry](#)

[Anaerobic Digestion Opportunities from Livestock Waste](#)

NBS3 Better functioning watercourses for nature, people and a thriving economy

ACTIONS:

NBS3.1 Create, enhance and celebrate nature-based solutions throughout catchments to ensure plentiful, clean water for wildlife, people and economy

NBS3.2 Store water and slow the flow through upstream habitat investment

NBS3.3 Promote the benefits of functional green and blue spaces for a vibrant economy.



How could we deliver better functioning watercourses for nature, people and a thriving economy?

- ✓ Agree unit calculations for carbon sequestration of different habitats as we develop opportunities for businesses to offset their carbon on their doorstep
- ✓ Encourage individuals and communities to protect and create water features for people and wildlife.
- ✓ Target habitat creation or enhancement close to carbon emissions

Resources:

[NE Evidence on carbon sequestration of habitats](#)

[Developers: how to access DLL funding for ponds](#)

[Wildlife Trusts: how to build a pond](#)

[RHS: pond construction and repair](#)

[RHS: wildlife gardening](#)

[RSPB Making a wildlife pond](#)

[Woodland Trust: tree planting advice](#)

[Sites of special scientific interest: managing your land - GOV.UK](#)

NBS4 More sustainable drainage and natural flood management, making space for water in our catchments and communities

ACTIONS:

NBS4.1 Install Sustainable Drainage Systems to deliver multiple benefits for nature, people and local businesses

NBS4.2 Install permeable surfaces and green / blue infrastructure to manage surface water

NBS 4.3 Identify areas of significant flooding and develop nature interventions and investment opportunities to reduce risk and impact.

NBS4.4 Develop Cross-county strategic design guidance that benefits nature, encourages more semi-natural greenspace and mitigates climate impacts



How could we deliver more sustainable drainage and natural flood management, making space for water in our catchments and communities?

- ✓ Promote and require better-quality of Sustainable Drainage Systems (SuDS) as part of development and renovation to control surface water run-off close to where it falls.
- ✓ Copy natural drainage as closely as possible, to help manage flood risk, enhance biodiversity, improve water quality and provide high-quality amenity and communal spaces.
- ✓ Work with local authorities, communities and water companies to establish an integrated water management plan.

Resources:

[NE GI Planning & Design Guide](#)

[SUDS Design Guide](#)

F1 Support and promote nature friendly farming, land management and sustainable food production across the landscape

ACTIONS:

F1.1 Establish a Future Farmer Group to develop, showcase and promote sustainable farming that benefits nature

F1.2 Help co-ordinate farm advice across the region to support sustainable farming, productivity and better outcomes for nature

F1.3 Maintain and recover species rich grassland through appropriate livestock grazing, avoiding soil damage where possible

F1.4 Safeguard exposed river sediments from vegetation building up, disturbance by animals, excessive run-off and pollution.

F1.5 Adopt sympathetic land management practices, particularly during nesting season (e.g. keeping livestock away from nesting areas).

F1.6 Maintain wet features such as ditches and scrapes.

F1.7 Encourage and promote benefits of hedgerows to livestock, soils and crops.

F1.8 Promote and support landowners and farmers to develop and deliver Natural capital funding

F1.9 Support farmers to use nature-based solutions to reduce the risk of agricultural pollution



How could we support and promote nature friendly farming, land management and sustainable food production across the landscape?

- ✓ Establish a **Future Farmer Group** to explore, generate and promote ways to support sustainable farming and to share lessons, resources and experience with each other.
- ✓ Develop case studies, networking and examples of good practice, promoting the benefits of investing in nature interventions to support animal health and welfare.
- ✓ Establish a cooperative or farming group to explore how we can make our woodlands viable for business and nature.
- ✓ Develop the concept of **Farmer-forester** with the farming community, forestry organisations and further education colleges to provide broader training for landowners and their employees and contractors.
- ✓ Research, develop and promote with equine organisations and veterinary sector suitable species rich grassland mixes that support horse health, whilst helping wildlife to thrive.
- ✓ Practice sensitive silage and haymaking practices during nesting season.

Resources:

[Plantlife: managing meadows](#)

[Defra SFI guidance for improved grasslands](#)

[Paludiculture: profitable production of wetland crops](#)

[CaBa Guidance on Biodiversity and Nature Based Solutions](#)

[Government: silage and slurry](#)

[Anaerobic Digestion Opportunities from Livestock Waste](#)

	Hedgerow management rules: cutting and trimming - GOV.UK How to manage a hedgerow for wildlife The Wildlife Trusts Hedgerow Management Advice Hedgelink Nature Friendly Farming Network: nature means business Sites of special scientific interest: managing your land - GOV.UK
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Tackling Invasive Non-Native Species

INNS1 Invasive non-native species (INNS) minimised across Cheshire & Warrington

ACTIONS:

INNS1.1 Collate and promote good practice and build capacity for management and eradication of invasive non-native species

INNS1.2 Eradicate and manage harmful invasive non-native species across all watercourses in Cheshire and Warrington

INNS1.3 Discourage inappropriate planting of invasive non-native species as part of landscaping and development schemes e.g. Rhododendron

INNS1.4 Identify and understand spatial prevalence of INNS, and coordinate planning and action to eradicate them, using the catchment based approach.

INNS1.5 Promote the national “Check, Clean, Dry” biosecurity campaign across the county for boats, fishing equipment etc.

INNS1.6 Require and support landowners to manage, reduce extent of and minimise invasive non-native species

INNS1.7 Regulate the importation and management of soils as part of highway and major infrastructure projects to prevent spread of invasive non-native species.



How could we minimise Invasive non-native species (INNS) across Cheshire & Warrington?

- ✓ Local Nature Partnership to work with other partners to develop eradication plans for key areas for invasive non-native species
- ✓ Members of the public and key stakeholders to be encouraged to report sightings of invasive non-native species
- ✓ Require and support landowners to eradicate invasive non-native species
- ✓ Work with landowners and community voluntary groups to run ‘Big Balsam Bash’ events to remove Himalayan Balsam
- ✓ Seek funding for trials to identify and evaluate the best methods for control in priority areas and share lessons through the Local Nature Partnership and with landowners/farmers through the Future Farmer Group
- ✓ Set rafts and traps for American Mink between January and mid-April and August to December and continue trapping to prevent recolonisation
- ✓ Monitor and manage signal crayfish populations, and identify ark sites for translocations of White Clawed Crayfish to build up its numbers away from threats.

Resources:

[Mersey Rivers Trust: Bollin Biodiversity Project and INNS removal](#)
[Check, Clean, Dry](#)
[Construction Code of Practice for the Sustainable Use of Soils](#)

U1 Green and blue wildlife corridors between urban and rural Cheshire and Warrington, for species movement and opportunities for active travel, recreation and engagement with nature

ACTIONS:

U1.1 Safeguard and expand nature corridors within urban areas, to connect with broader rural landscape corridors

U1.2 Create more communal semi-natural greenspace and wildlife rich areas

U1.3 Re-establish and improve wildlife culverts / underpasses along our transport infrastructure

U1.4 Integrate nature into better urban placemaking including working towards increasing GI cover to at least 15%

U1.5 All housing developments are promoted to include swift/bee bricks and hedgehog highways

U1.6 Develop a sponge city network to reduce possible impacts of climate change

U1.7 Improve the greenway and active travel network for nature and people

U1.8 Where possible, invest in nature in brownfield sites that are not subject to development.



How could we help to create, enhance and restore Green and Blue Infrastructure in the urban environment to provide habitats and corridors for nature and benefits for people?

- ✓ Map existing habitats and corridors in our towns and cities and seek opportunities to expand and connect them.
- ✓ Re-establish wildlife culverts/underpasses along our roads (owned by LA) to ensure safe passage for wildlife across all network infrastructure.
- ✓ Better plan new development to provide and enhance corridors and connections to strengthen and support the ecological network.
- ✓ By encouraging and supporting more people and communities to have 'wildlife friendly' gardens and green spaces we will help species move through the urban landscape.
- ✓ Support communities and local groups to take action for nature on their doorstep.
- ✓ Create sensory gardens, ponds, meadows and woodlands on school grounds to improve biodiversity, aid education, improve mental and physical wellbeing and for young people to build a positive relationship with nature at an early age.
- ✓ Developers across Cheshire and Warrington should be encouraged to join [Homes for Nature](#) as a minimum and commit to installing bird-nesting brick or boxes for every new home built, as well as hedgehog highways as standard on every new development.
- ✓ Planners and developers should promote and use the [Building With Nature Standards](#) in placemaking.

Resources:

[Rivers Trust: Sponge Cities](#)

Species Priorities & Actions

Species	Rationale	Actions	Consider
Common-Clubtail Dragonfly	Expand England's northern-most population.	- Conduct bespoke habitat management to maintain a balance of vegetation along water courses. - Provide good water quality, nearby scrub and wood, and shading that is below 50% during May to July. - If dredging is carried out, it should be done in sections with the spoil left long enough for larvae to make their way out, then eventually be moved away from the watercourse.	British Dragonfly Society, 2019 - https://british-dragonflies.org.uk/wp-content/uploads/2019/01/Common-Clubtail-Management-Profile_0.pdf
Desmoulin's Whorl Snail (this is just 3mm tall)	Maintain the presence in Cheshire of this threatened Mollusc	- Provide high water levels and good quality habitat, including areas of reed sweet-grass (Glyceria). - Protect riverbanks from evolving into scrub - Do not cut riverbank vegetation short - Do not drain wetland habitat.	- Prevention of scrub encroachment key - Avoiding mowing / and short sward height at water's edge. (Conserving Natura 2000 Rivers; Ecology Series No. 6)
European Water Vole	Support reversal of decline of local populations	- Eradicate or control American mink. - Create buffer strips along water courses - Control livestock access to riverbanks (through fencing or seasonal fencing) - Carry out sympathetic bank and ditch management so the burrows are not destroyed.	- Align research and funding efforts across the LNRS area - Note actions in neighbouring LNRS areas to align activity across human boundaries
Lapwing (as part of the Breeding wader assemblage)	Support reversal of declining populations	- Adopt sympathetic land management practices, particularly during GROUND nesting season (eg. keeping livestock away from nesting areas) - Maintain wet features such as drains and scrapes. - Improve water quality during winter months for resident populations	- Protect nests from disturbance from March – August - Support changes in farming practices to benefit the land owner / farmer as well as the species

Species	Rationale	Actions	Consider
Hen Harrier (as part of the Raptor assemblage)	Address negative impacts on raptor species	• Raising awareness amongst the public about raptor persecution and how to reduce it. • Increased capacity for nest watches and closer working with communities that come in close conflict with the species. • Increase in suitable nesting sites	• Sensitively support birds of prey work to ensure safety of species • Promote the benefits to land owners including access to funding and investment
Lesser Silver Water Beetle	Positively manage for this Cheshire population	• Maintain livestock access to ponds and ditches, maintaining the poached margins. • Leave vegetation in ponds and do not dredge them. • Keep numbers of ponds fish-free to avoid predation.	• Work with the site owners and land managers to facilitate this priority and actions
West European Hedgehog	Support increased awareness and connectivity	• Connect urban spaces through 'hedgehog holes' and road bridges/tunnels. • Foraging areas should be considered in planning applications. • Encourage promotion of local and national citizen science projects to record hedgehog numbers	• Support LPAs to encourage consideration in planning policy and decisions • Establish funds and resources to support citizen science approaches
Atlantic Salmon (as part of the migratory fish assemblage)	Increase migration and spawning opportunities	• Where possible, allow river channels to return to a natural meander providing greater protection from predators. • Modify or remove weirs and/or install fish passes. • Create fish migration map to highlight bottlenecks and raise awareness on the impact of barriers in watercourses.	• Links to neighbouring LNRS areas are critical to achieving actions for this species
Mud Snail	Reverse declines of Cheshire populations	• Install or safeguard ephemeral (occasional) ponds • Avoid drainage and management practices that involve clearing vegetation and deepening of ponds.	• Note this species occupies specific niches that the actions address
Open Mosaic Butterflies and Moths	Reverse declines via suitable habitat	• Within appropriate habitats maintain a mix of 'micro' habitats with a variety of plant species and ages.	• Plant food sources such as Common Bird's-foot-trefoil (<i>Lotus corniculatus</i>) and Greater Bird's-foot-trefoil (<i>L.</i>

Species	Rationale	Actions	Consider
	management and provision	Plant food sources such as Common Bird's-foot-trefoil and Greater Bird's-foot-trefoil alongside a variety of grasses such as False Brome and Cock's-foot.	pedunculatus) alongside a variety of grasses such as False Brome (B. sylvaticum), Cock's-foot (Dactylis glomerata). (BCT advice)
Swift (as part of the Roof nesting bird assemblage)	Reverse significant decline in Cheshire colonies	- Increase suitable nesting sites through sympathetic renovation works and installation of nest boxes and swift bricks. - Develop a communication campaign to gain public support for swifts. - Encourage and promote people to record swifts on 'Swift mapper' or RECORD's data app 'SWIFT' - Encourage gardening for wildlife by planting suitable wildflowers to help increase invertebrates, providing more food sources, and by reducing weed killers and pesticides.	- It is important that suitable nesting sites are available for roof nesting birds - This can be done through sympathetic renovation works and installation of nest boxes and/or swift bricks. - Support gardening for wildlife by planting suitable wildflowers that help increase invertebrates, providing more food sources.
White-Clawed Freshwater Crayfish	Reverse declines of Cheshire populations	- Use environmental DNA testing to locate populations of White-Clawed Freshwater Crayfish and non-native crayfish. - Identify potential future ark sites. - Continue translocations and monitoring of ark sites. - Control non-native crayfish to reduce competition for food.	- Ark sites are being used across the UK to create stable populations in remote areas free of disease, non-native crayfish and other threats. - Establish a cross sector LNP Task & Finish Group working on this species
White-Letter Hairstreak Butterfly	Create suitable habitat to minimise vulnerability	Plant Wych Elm, English Elm and Small-leaved Elm	- This butterfly breeds on Elm species (many of which were killed during the Dutch Elm Disease outbreaks of the 1970s). - Support and expand existing efforts to plant native Elm in relevant locations
Willow Tit	Expand the population across Cheshire sites	Increase the presence of woodland glades, open canopy, standing deadwood and a dense shrub layer	Measures to increase scrub density within woodland would benefit Willow Tit.

Species	Rationale	Actions	Consider
		within woodland through the creation of new areas of woodland, especially wet woodland. • Adopt coppicing in suitable damp woodland sites to manage woodland structure. • Create and maintain woodland's scrubby, edge habitats. • Raise awareness of the damage of bird feeding, in Willow Tit appropriate habitats. • Keep aware of ongoing research and implement delivery based on best practice.	• Standing deadwood would benefit Willow Tit and a wide variety of invertebrates.