# Worcestershire LNRS Task & Finish Group workstream: Outputs and Outcomes for LNRS delivery

## Introduction

Between July and September 2024, the Biodiversity Priorities Task & Finish Group completed a piece of work to 'vision' the outputs and outcomes that future LNRS delivery should aim to achieve. This work fed into the development of the suggested Potential Measures and contributed to the work of the Data and Mapping Task & Finish Group with regards to whether Potential Measures were mapped or non-mapped and, if the former, how this mapping was spatially targeted.

The outputs and outcomes are set out below.

## Water and Wetlands theme

### Rivers and Streams

| |
|---|
| • River and stream morphology enhanced through the re-naturalisation of modified watercourses and creation of on-line wetland features |
| • Improved water quality in all rivers and streams |
| • Better designed SuDS being implemented with improved biodiversity outcomes |
| • Increase in freshwater species' resilience to flood and drought through work to naturalise hydrological regimes, maintain base flows and provide fish refuges and suitable spawning locations |
| • Increase in freshwater invertebrate abundance |
| • Reduction of INNS impacts, in particular Himalayan balsam and Japanese Knotweed, and causes of water vole and white-clawed crayfish population declines addressed |
| • Greater public awareness of INNS impacts |
| • Greater public awareness around the impact of sewer misconnections and disposal of pollutants into surface water drains |
| • Reduction in levels of siltation of watercourses |
| • Increase in riparian woodland habitat |

### Groundwater Dependent Habitats

| |
|---|
| • Important groundwater-dependent landscapes mapped |
| • Regular programme of survey and monitoring in place on all impacted sites leading to action to reduce harm where possible |
| • Reduced groundwater abstraction from key aquifers |
| • Continued analysis of base-flow risks |
| • Maintenance of adequate water levels on protected wetland sites |

| |
|---|
| • Improved condition of important groundwater-dependent protected wetland sites |
| • Increased aquifer recharge (no further deterioration) on low flow aquifers |

### Still Freshwater Habitats

| |
|---|
| • Increase in the number of ponds |
| • Important still freshwater habitat landscapes mapped and key species dependent on them understood |
| • Better designed SuDS being implemented with improved biodiversity outcomes |
| • Improved awareness and understanding of importance of providing good terrestrial habitat surrounding ponds |
| • Improved long-term management of the still freshwater habitat resource |
| • Better understanding of landscape networks and defragmentation requirements for key species |
| • Implementation of a Worcestershire-wide toads on roads project |

### Fen, Marsh, Swamp and Reedbed

| |
|---|
| • Better designed and implemented SuDS with improved biodiversity outcomes |
| • Increase in area of fen, marsh, swamp and reedbed habitat |
| • Better appreciation of ecological value of these habitats among stakeholders and decision-makers |
| • Better protection for extant high value areas through an increase in the number of statutory and non-statutory designations |

### Saline Habitats

| |
|---|
| • Increase in habitat area |
| • Existing resource achieves and maintains good condition |
| • Better appreciation of ecological value of habitat among stakeholders and decision-makers |
| • Better protection for extant high value areas through an increase in the number of statutory and non-statutory designations |

## Trees, Scrub and Woodland Theme

### Native Woodland and Trees

| |
|---|
| • Increase in overall native woodland cover |
| • Increase in tree cover outside woodland |
| • Increase in number of PAWS woodlands restored or in restoration |
| • Increase in wet woodland and riparian woodland habitat |

| |
|---|
| • Increased partnership working on tree planting initiatives across Worcestershire's borders |
| • Improved buffering and connectivity between native woodlands, including reinstatement of ghost hedgerows |
| • Increased positive management of woodlands for biodiversity |
| • Enhanced ground flora, soil fungi and soil invertebrates within native woodlands and newly planted woodlands |
| • Increased dead wood resource within woodlands |
| • Reduced impact of deer and squirrels on woodlands |

## Hedgerows

| |
|---|
| • Increase in total extent of hedgerows, including reinstatement of ghost hedgerows |
| • Increase in number of well-managed hedgerow trees including fruit trees |
| • Better managed hedgerows maintaining biodiversity value and hedge function |
| • Enhanced ground flora in hedgerow bases and margins |
| • Improved species diversity within hedgerows appropriate to local landscape character |
| • Stronger protection for hedgerows through local planning policy, especially within the built environment |

## Wood Pasture and Parkland

| |
|---|
| • Long term maintenance of existing key sites in place |
| • Buffering of key sites from surrounding adverse land use |
| • Create habitat linkages between existing wood pasture and parkland sites |
| • Planting of future parkland tree stock with appropriate species resilient to future climate change scenarios, with pasture management |
| • Targeted early veteranisation of trees |
| • Improved availability of dead wood resource |
| • Improved understanding of the ecological value of dead wood amongst woodland and tree owners |
| • Better management of understory and pasture element of key sites |

## Existing and Future Ancient and Veteran Trees

| |
|---|
| • Increase in the number of ancient and veteran trees across the wider countryside being sensitively managed (outside of protected/well-known sites) |
| • Increase in the number of trees identified and managed as future veterans |
| • Targeted early veteranisation of trees in locations to provide connectivity for priority species |
| • Improved availability of dead wood resource |
| • Improved understanding of the ecological value of dead wood amongst woodland and tree owners |

| |
|---|
| • Better protection of near-veteran trees within local planning policy |

### Scrub

| |
|---|
| • Better appreciation of the ecological value of the habitat among stakeholders and decision-makers |
| • Better protection for extant high value areas through an increase in the number of statutory and non-statutory designations |
| • Instigation of appropriate management on high-value scrub sites to prevent succession to closed canopy woodland |

### Traditional Orchard

| |
|---|
| • Better protection for traditional orchards through local planning policy |
| • National or local designations placed on a greater number of traditional orchard sites |
| • Better long-term maintenance of the existing resource in place |
| • More orchards planted and managed to provide biodiversity value |
| • Greater understanding of the importance of dead wood as part of the habitat structure |
| • Improved connectivity between traditional orchards comprising fruit tree habitat, including hedgerow fruit trees, and nectar provision (especially elder, cow parsley, meadowsweet) |
| • Targeted early veteranisation of fruit trees |
| • Increased economic value given to traditional orchards |
| • Conservation of associated species being delivered as part of habitat restoration and management programmes e.g. Lesser Spotted Woodpecker, Mistletoe Marble Moth, Noble Chafer |

## Open Habitats Theme

### Floodplain Meadow and Wet Grassland

| |
|---|
| • Increase in the quantity of species-rich floodplain meadow grassland |
| • Increase in the number of floodplain meadow sites under an appropriate management regime |
| • Green hay from existing MG4 sites used to enrich other floodplain meadows |
| • Better appreciation of ecological value of habitat among stakeholders and decision-makers |
| • Better protection for extant sites through an increase in the number of statutory and non-statutory designations |
| • Stronger protection for floodplain meadow sites through local planning policy |
| • Restoration of more high value sites on suitable soils |
| • Enhanced cross-border connectivity of functionally linked habitat along the Severn and Avon corridors through Worcestershire and Gloucestershire |
| • Increase in numbers and improved breeding success of wading birds associated with floodplain meadow habitat (especially curlew) |

## Lowland Meadow

| |
|---|
| • Increased use of green hay cutting and spreading from high-quality, local donor meadows for site restoration projects |
| • Targeting of agri-environment funding to lowland meadow sites (especially small sites) |
| • Focus lowland meadow creation in locations where this can create linkages and reduce fragmentation between existing sites |
| • Stronger protection for lowland meadow sites through local planning policy |
| • Regular programme of survey and monitoring to add more extant sites to local inventories and improve the data held on the condition of lowland meadows sites |
| • More extant sites returned to suitable management and on a pathway to recovering good condition |
| • More sites buffered by enhancement or more sympathetic management of adjacent land |
| • Better and more cohesive support network for lowland meadow owners to allow knowledge transfer and equipment sharing |

## Acid Grassland and Lowland Heathland

## Acid grassland

| |
|---|
| • Better appreciation of the ecological value of acid grassland habitat among stakeholders and decision-makers |
| • Improved quality of extant acid grassland habitat |
| • Better protection for extant blocks of habitat through an increase in the number of statutory and non-statutory designations |
| • Stronger protection for acid grassland sites through local planning policy |
| • Better recognition of and rates of funding available for acid grassland habitat within the agri-environment offer |
| • Restoration of more high value sites on suitable soils |

## Heathland:

| |
|---|
| • Continued management and protection of the Worcestershire heathland resource (including for 'new' buffering blocks) |
| • Improved quality of extant heathland habitat |
| • Extension of existing heathlands to create larger blocks |
| • Recolonisation of Worcestershire heathlands by key species |
| • Heathlands better protected from recreational pressures |
| • Defragmentation of smaller sites prioritised to connect them into the bigger heathland network |

## Calcareous Grassland

| |
|---|
| • Better appreciation of the ecological value of calcareous grassland habitat among stakeholders and decision-makers |
| • Improved quality of extant calcareous grassland habitat |
| • Better protection for extant blocks of habitat through an increase in the number of statutory and non-statutory designations |
| • Stronger protection for calcareous grassland sites through local planning policy |
| • Better recognition of and rates of funding available for calcareous grassland habitat within the agri-environment offer |
| • Restoration of more high value sites on suitable soils |

### Habitats associated with Arable Farmland

| |
|---|
| • Better appreciation of ecological value of habitat among stakeholders and decision-makers |
| • Important areas for arable wildflowers mapped with better botanical survey data on record |
| • Better protection for extant high value arable wildflower areas through an increase in the number of statutory and non-statutory designations |
| • Creation and restoration of arable wildflower sites on suitable soils |
| • Loss of arable farmland biodiversity halted, both flora and fauna |
| • Increase in abundance of pollinators and beneficial insects on farmland |
| • Greater uptake of integrated pest management |
| • Reduction in use of pesticide, insecticide and fungicide |

## Landscape-scale and Linear Habitat Connectivity Theme

### Local Sites Network

| |
|---|
| • Fully funded Local Sites condition monitoring system in place |
| • Condition data less than 5-years old held for all Local Sites |
| • Current contacts database of Local Sites owners achieved |
| • Small grants scheme in place to support Local Sites owners with management |
| • Increase in number of Local Sites |
| • Increase in number of Local Sites under positive conservation management and in good or recovering condition |
| • Increase in buffering of existing Local Sites |
| • Increase in connectivity between existing Local Sites |
| • Improvement in Worcestershire's 30by30 percentage due to the increased number of Local Sites qualifying under 30by30 criteria |
| • Better appreciation of the value of Local Sites among stakeholders and decision-makers leading to an increased commitment of resources to the system including funding and officer time |

### Habitat Connectivity within Strategic Nature Corridors

| |
|---|
| • Strategic nature corridors identified using Worcestershire Nature Recovery Network mapping |
| • Reduction in priority habitat fragmentation within the Nature Recovery Network |
| • Improvement in Worcestershire's 30by30 percentage due to the increased extent of habitat within the Nature Recovery Network qualifying under 30by30 criteria |

### Road Verge Management for Biodiversity

| |
|---|
| • More sites designated as Roadside Verge Nature Reserves |
| • More and better-managed sites of Roadside Verge Nature Reserve quality exist throughout the highway network |
| • Better understanding of ecological value of Roadside Verge Nature Reserves and better political and public support for enhanced management regimes and floristic diversity on verges |
| • Native and locally sources perennial plants used by default in road verge biodiversity enhancement schemes |
| • Sustainable solution to cutting and removing arisings found and implemented |

### Artificial Light at Night

| |
|---|
| • More dark corridors implemented within the county, prioritised to key locations |
| • Better understanding of the impacts on wildlife of artificial light at night amongst the public, practitioners and decision-makers |
| • Increase in use of wildlife-friendly artificial lighting design as the default within any lighting scheme |
| • Overall reduction in light pollution levels across the county |

## Earth Heritage Theme

### Soils

| |
|---|
| • Degradation of agricultural soils halted |
| • Increase carbon storage within agricultural soils |
| • More farmers using assessment tools and apps to monitor and improve soil health |
| • Higher organic matter content in farmland soils |
| • Greater abundance and diversity of soil fauna especially earthworms |
| • Improved water storage capacity in farmland soils |
| • Reduction in use of pesticides and artificial fertilisers |
| • More farmers adopting low/zero-till and regenerative grazing techniques |

### Rock and Scree Habitats

| |
|---|
| • Existing resource is maintained in good condition |
| • New exposures revealed by quarrying or other means are preserved creating unique biological niches and enabling opportunities for research and education |
| • Better protection for important sites through an increase in the number of statutory and non-statutory designations |

## Green Infrastructure Theme

### Green Spaces in the Built Environment

| |
|---|
| • Better and more cohesive support network for people seeking to deliver nature recovery activity within community spaces in the built environment, such as allotments, orchards and public open space |
| • Increased tree canopy cover within the built environment |
| • Widespread use of biodiversity features such as hedgehog highways and bird or bat boxes within the built environment |
| • Increase in the number of ponds within public greenspaces and gardens |
| • More high-quality opportunities for people to access nature close to home |
| • Better designed and implemented SuDS with improved biodiversity outcomes |
| • Improved local planning policy drivers for action that will enhance biodiversity within the built environment |

### Prioritisation of Nature Recovery

| |
|---|
| • Long term views on development are being taken by local planning authorities to protect the county's biodiversity, including consideration of potential cumulative impacts of successive developments |
| • Better understanding of the longer-term issues facing the county in relation to development pressures on the natural world |
| • Worcestershire Nature Recovery Network being used to prioritise locations for the expansion and defragmentation of wildlife habitats |
| • No SSSIs being directly or indirectly damaged by development |
| • Mitigation hierarchy consistently applied in full where damage to Local Wildlife Sites is proposed |