

# Worcestershire Local Nature Recovery Strategy

Appendix I: Biodiversity Priority and  
Potential Measure Data Sheets

March 2026



# Worcestershire Local Nature Recovery Strategy

## Biodiversity Priority and Potential Measure Data Sheets

Data sheets show:

- Relationship between the Biodiversity Priorities and suggested Potential Measures
- UKHab codes for mapped Potential Measures indicating how to achieve consistency with Biodiversity Net Gain habitat creation and enhancement
- The title of each Potential Measure is hyperlinked to an ArcOnline Storymap containing further information

[Explore the Water and Wetlands Biodiversity Priorities and Potential Measures](#)

[Explore the Trees, Scrub and Woodland Biodiversity Priorities and Potential Measures](#)

[Explore the Open Habitats Biodiversity Priorities and Potential Measures](#)

[Explore the Landscape-scale and Linear Habitat Connectivity Biodiversity Priorities and Potential Measures](#)

[Explore the Earth Heritage Biodiversity Priorities and Potential Measures](#)

[Explore the Green Infrastructure Biodiversity Priorities and Potential Measures](#)

[Explore the Species Priorities and Potential Measures](#)

# Water and Wetlands theme

## Rivers, Streams and Canals




### Priorities for Rivers, Streams and Canals

**Biodiversity Priority 1:** Improve the quality of the water within Worcestershire’s watercourses

**Biodiversity Priority 2:** Improve the availability of water within Worcestershire’s watercourses to improve condition of habitats and increase species’ resilience to flood and drought events

**Biodiversity Priority 3:** Improve the quality and extent of in-channel and riparian habitat for key species, for example Shad, Brown Trout, European Eel, White-clawed Crayfish and Water Vole

### Potential Measures that will support delivery of these Priorities

<p><b>Potential Measure 1:</b> <a href="#">River and stream re-naturalisation</a> WRLNRS21_PM1</p>	<p>Carry out channel restoration including de-culverting or widening culverts, channel re-profiling and re-meandering to re-naturalise watercourses, reconnect watercourses with their floodplain and wetland habitats, and enable improved wildlife passage through or around man-made barriers. Create and enhance associated wetland habitat to provide feeding, refuge, spawning and breeding habitat for fish, freshwater invertebrates and mammals such as water vole and otter.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 1: r1~</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 2:</b> <a href="#">Create riparian buffer zones</a> WRLNRS21_PM2</p>	<p>Create or enhance riparian buffer zones alongside watercourses and ditches comprising of woodland, grassland, wetland features or a mosaic of these habitats with no cultivation or input of agri-chemicals. Within this zone look for opportunities to create or enhance 1) riparian woodland habitat, including wet woodland, 2) the bankside tree resource through new planting, pollarding and coppicing, 3) areas of wet and dry reedbed, 4) areas of wet grassland or marsh.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 2: g1~, g2~, g3a~, g3b~, g3c6, g3c7, g3c8, w1~ 30, f~, h2a, r1~, h3~, 18</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 3:</b> <a href="#">Revert land to wet grassland and floodplain meadow</a> WRLNRS21_PM3</p>	<p>Revert arable and horticultural land and intensive pasture to permanent wet grassland, stop agri-chemical inputs and manage by grazing and hay cutting. Where possible create or enhance wet grassland habitat quality to MG4 species-rich floodplain meadow.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 3: g1~, g2~, g3a~, g3b~, g3c~, 18, 19</p>		<p>~ = all further levels and any secondary codes</p>	

Rivers, Streams and Canals continued...

# Water and Wetlands theme

## Rivers, Streams and Canals continued



### Priorities for Rivers, Streams and Canals

**Biodiversity Priority 1:** Improve the quality of the water within Worcestershire’s watercourses

**Biodiversity Priority 2:** Improve the availability of water within Worcestershire’s watercourses to improve condition of habitats and increase species’ resilience to flood and drought events


**Biodiversity Priority 3:** Improve the quality and extent of in-channel and riparian habitat for key species, for example Shad, Brown Trout, European Eel, White-clawed Crayfish and Water Vole

### Potential Measures that will support delivery of these Priorities

<p><b>Potential Measure 4:</b> <a href="#">Protect and improve water resources</a></p> <p>WRLNRS21_PM4</p>	<p>Improve water quality and availability in surface waters and wetlands, at-risk groundwater aquifers and groundwater-fed wetland systems by implementing changes to surrounding land management. This could include:</p> <ul style="list-style-type: none"> <li>• Creating grass buffer strips or reverting arable fields to grassland to reduce soil erosion into surface waters</li> <li>• Adopting sustainable soil management practices such as minimum tillage and use of cover crops</li> <li>• Adopting integrated pest management in place of pesticide and herbicide use</li> <li>• Re-naturalising hydrological flows by blocking drains, reconnecting watercourses to their floodplain and creating wetland features such as ditches, ponds or scrapes to store and slow the flow of water, including sensitive restoration and re-use of historic water management features</li> <li>• Removing invasive non-native plant species and following biosecurity protocols to prevent their spread</li> <li>• Installing on-farm Sustainable Drainage Schemes (SuDS) to capture soil and pollutants and aid infiltration</li> <li>• Installing on-farm reservoirs and rainwater harvesting features to reduce the need for abstraction</li> <li>• Locating and correcting wastewater sewer misconnections</li> <li>• Installing domestic rainwater harvesting features such as water butts</li> <li>• Installing roadside SuDS to capture pollutants</li> </ul>	<p><b>Non-Mapped Measure</b></p>	
<p><b>Potential Measure 5:</b> <a href="#">Natural flood management</a></p> <p>WRLNRS21_PM5</p>	<p>Use ecological engineering and nature-based solutions to re-naturalise local hydrological flows, reduce flood risk, promote infiltration, support groundwater recharge, provide feeding, refuge and spawning/breeding habitat for species, reconnect watercourses to their floodplains and improve water quality and availability by creating and enhancing wetland habitats that will hold back water, such as: tree planting to encourage infiltration, creation of attenuation areas, ponds, swales, ditches or wetland habitat such as fen, wet woodland or wet grassland, installing woody debris and reinstating meanders. Consider use of keystone species to contribute to the restoration of ecosystem function.</p>	<p><b>Non-Mapped Measure</b></p>	

# Water and Wetlands theme

## Groundwater-dependent Habitats

Priorities for Groundwater-dependent Habitats		
<p><b>Biodiversity Priority 4:</b> Improve the hydrological functioning and condition of groundwater-fed wetland sites</p>		
Potential Measures that will support delivery of these Priorities		
<p><b>Potential Measure 4:</b>  <a href="#">Protect and improve water resources</a>                       WRLNRS21_PM4</p>	<p>Improve water quality and availability in surface waters and wetlands, at-risk groundwater aquifers and groundwater-fed wetland systems by implementing changes to surrounding land management. This could include:</p> <ul style="list-style-type: none"> <li>• Creating grass buffer strips or reverting arable fields to grassland to reduce soil erosion into surface waters</li> <li>• Adopting sustainable soil management practices such as minimum tillage and use of cover crops</li> <li>• Adopting integrated pest management in place of pesticide and herbicide use</li> <li>• Re-naturalising hydrological flows by blocking drains, reconnecting watercourses to their floodplain and creating wetland features such as ditches, ponds or scrapes to store and slow the flow of water, including sensitive restoration and re-use of historic water management features</li> <li>• Removing invasive non-native plant species and following biosecurity protocols to prevent their spread</li> <li>• Installing on-farm Sustainable Drainage Schemes (SuDS) to capture soil and pollutants and aid infiltration</li> <li>• Installing on-farm reservoirs and rainwater harvesting features to reduce the need for abstraction</li> <li>• Locating and correcting wastewater sewer misconnections</li> <li>• Installing domestic rainwater harvesting features such as water butts</li> <li>• Installing roadside SuDS to capture pollutants</li> </ul>	<p><b>Non-Mapped Measure</b></p> 

# Water and Wetlands theme




## Still Freshwater Habitats

### Priorities for Still Freshwater Habitats

**Biodiversity Priority 5:** Increase the number of ponds and the extent and connectivity of wetland and terrestrial habitat between ponds

**Biodiversity Priority 6:** Improve the condition of ponds and the number of ponds that qualify for priority pond status

### Potential Measures that will support delivery of these Priorities

<p><b>Potential Measure 4:</b> <a href="#">Protect and improve water resources</a></p> <p>WRLNRS21_PM4</p>	<p>Improve water quality and availability in surface waters and wetlands, at-risk groundwater aquifers and groundwater-fed wetland systems by implementing changes to surrounding land management. This could include:</p> <ul style="list-style-type: none"> <li>• Creating grass buffer strips or reverting arable fields to grassland to reduce soil erosion into surface waters</li> <li>• Adopting sustainable soil management practices such as minimum tillage and use of cover crops</li> <li>• Adopting integrated pest management in place of pesticide and herbicide use</li> <li>• Re-naturalising hydrological flows by blocking drains, reconnecting watercourses to their floodplain and creating wetland features such as ditches, ponds or scrapes to store and slow the flow of water, including sensitive restoration and re-use of historic water management features</li> <li>• Removing invasive non-native plant species and following biosecurity protocols to prevent their spread</li> <li>• Installing on-farm Sustainable Drainage Schemes (SuDS) to capture soil and pollutants and aid infiltration</li> <li>• Installing on-farm reservoirs and rainwater harvesting features to reduce the need for abstraction</li> <li>• Locating and correcting wastewater sewer misconnections</li> <li>• Installing domestic rainwater harvesting features such as water butts</li> <li>• Installing roadside SuDS to capture pollutants</li> </ul>	<p><b>Non-Mapped Measure</b></p>	
<p><b>Potential Measure 6:</b> <a href="#">Create wildlife ponds in low-density pond areas</a></p> <p>WRLNRS21_PM6</p>	<p>Create new wildlife ponds including provision of connected terrestrial habitat around pond sites, in particular grassland, scrub and hibernacula.</p>	<p><b>Non-Mapped Measure</b></p>	
<p><b>Potential Measure 7:</b> <a href="#">Create and enhance wildlife ponds and surrounding habitat in high-density and high-value pond areas</a></p> <p>WRLNRS21_PM7</p>	<p>Enhance existing pondscapes by improving the quality and quantity of water entering ponds (see Potential Measure 4), creating additional ponds and wetland habitat, re-creating or restoring lost ponds or historic water features, and creating or enhancing connected terrestrial habitat around and between ponds, in particular grassland, scrub and hibernacula/refugia suitable for use by amphibians.</p>	<p><b>Mapped Measure</b></p>	

UKHab codes for Potential Measure 7: r1 40, r1 41, g1~, g2~, g3a~, g3b~, g3c~, f~

~ = all further levels and any secondary codes

Still Freshwater Habitats continued...

# Water and Wetlands theme

## Still Freshwater Habitats continued

### Priorities for Still Freshwater Habitats

**Biodiversity Priority 5:** Increase the number of ponds and the extent and connectivity of wetland and terrestrial habitat between ponds

**Biodiversity Priority 6:** Improve the condition of ponds and the number of ponds that qualify for priority pond status

### Potential Measures that will support delivery of these Priorities

**Potential Measure 38:**  
[Increase the extent, connectedness and quality of wildlife habitats within the built environment](#)

WRLNRS21\_PM38

All built environments should allow wildlife to safely move through them and thrive within them. Decisions on the layout and design of built-up areas, at all scales, should seek to make a positive contribution to providing more, bigger and better-connected landscapes and areas of natural habitats. As a minimum, developers and decision-makers should seek to:

- Increase urban tree canopy cover, aiming for a minimum of 20%, through, for example, planting street trees, trees in green spaces, hedgerows, community orchards, or small woodland blocks, strips or corridors.
- Create and enhance areas of locally distinctive grassland with a species mix appropriate to the local geology and soil-type.
- Make individual homes, gardens and boundary features more wildlife-friendly through, for example, the installation of hedgehog highways, universal swift nest bricks and integrated bat bricks.
- Ensure lighting specifications meet those set out within Potential Measures 45 and 46.
- Create more wildlife ponds within public greenspaces and gardens.
- Incorporate sustainable water capture, storage and management features including biodiverse raingardens and Sustainable Drainage Schemes (SuDS), and design alternative solutions to engineered culverts.
- Provide green active travel corridors that function as linear wildlife habitats as well as cycleways and footways.
- Retain and restore existing or historic landscape features such as ponds, hedgerows, hedgerow trees and street trees.
- Design the layout of new gardens, greenspaces and buffers between development so that they contribute to a cohesive network of green corridors within the built environment.
- Link urban green spaces and green corridors to the local nature network in the surrounding countryside.
- Retain and enhance existing on-site habitats which are of medium distinctiveness or higher (as defined within the Statutory Biodiversity Metric).

#### Mapped Measure



UKHab codes for Potential Measure 38: u1f 80, u~ 86, 87, 88, 89, u~ 841, 842, 843, 848, 849, 850, 830, 27

~ = all further levels and any secondary codes


# Water and Wetlands theme

Fen, Marsh, Swamp and Reedbed


## Priorities for Fen, Marsh, Swamp and Reedbed

**Biodiversity Priority 7:** Increase the extent of wetland habitats under restoration and in good condition

## Potential Measures that will support delivery of these Priorities

<p><b>Potential Measure 8:</b> <a href="#">Create and enhance wetland habitats</a></p> <p>WRLNRS21_PM8</p>	<p>Use ecological engineering and nature-based solutions to raise and maintain water tables and re-wet land to enable the creation or enhancement of a wetland habitat mosaic and the reconnection of watercourses with their floodplain. As appropriate to the soil type, geology and hydrology seek to create and enhance a mosaic of fen, marsh, swamp, bog, peat, wet grassland, wet woodland and reedbed habitat. Consider use of keystone species to contribute to the restoration of ecosystem function. Control invasive non-native plant species.</p>	<p><b>Mapped Measure</b></p>	
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UKHab codes for Potential Measure 8: f~, g~, w1d, 19, 55, 425 ~ = all further levels and any secondary codes

<p><b>Potential Measure 9:</b> <a href="#">Create and restore saline habitats</a></p> <p>WRLNRS21_PM9</p>	<p>Incorporate restoration of saline conditions when creating or enhancing wetland habitat within the Salwarpe Valley, where this is supported by the geology and hydrology, and work with stakeholders to better understand and promote the value of the unique hydrological conditions in this location.</p>	<p><b>Mapped Measure</b></p>	
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UKHab codes for Potential Measure 9: t2g~ ~ = all further levels and any secondary codes

# Water and Wetlands theme

## Saline Habitats

Priorities for Saline Habitats	
<b>Biodiversity Priority 8:</b> Increase the extent of saline habitats under restoration and in good condition	
Potential Measures that will support delivery of these Priorities	
<p><b>Potential Measure 9:</b>  <a href="#">Create and restore saline habitats</a></p> <p>WRLNRS21_PM9</p>	<p>Incorporate restoration of saline conditions when creating or enhancing wetland habitat within the Salwarpe Valley, where this is supported by the geology and hydrology, and work with stakeholders to better understand and promote the value of the unique hydrological conditions in this location.</p>
<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 9: t2g~</p>	
<p>~ = all further levels and any secondary codes</p>	

# Trees, Scrub and Woodland theme

## Native Trees and Woodland

### Priorities for Native Trees and Woodland

**Biodiversity Priority 9:** Increase tree cover in the form of woodland and trees outside woodland, including hedgerow trees, orchard, wood pasture, riparian/wet woodland and urban tree canopy cover

**Biodiversity Priority 10:** Improve the condition of ancient semi-natural woodlands and bring more PAWs woodlands into restorative management

**Biodiversity Priority 11:** Increase the functional connectivity between woodlands at a landscape scale, to allow for species movement





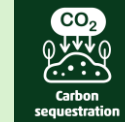


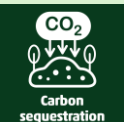

### Potential Measures that will support delivery of these Priorities

<p><b>Potential Measure 2:</b> <a href="#">Create riparian buffer zones</a></p> <p>WRLNRS21_PM2</p>	<p>Create or enhance riparian buffer zones alongside watercourses and ditches comprising of woodland, grassland, wetland features or a mosaic of these habitats with no cultivation or input of agri-chemicals. Within this zone look for opportunities to create or enhance 1) riparian woodland habitat, including wet woodland, 2) the bankside tree resource through new planting, pollarding and coppicing, 3) areas of wet and dry reedbed, 4) areas of wet grassland or marsh.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 2: g1~, g2~, g3a~, g3b~, g3c6, g3c7, g3c8, w1~ 30, f~, h2a, r1~, h3~, 18</p> <p style="text-align: right;">~ = all further levels and any secondary codes</p>			
<p><b>Potential Measure 10:</b> <a href="#">Restore Plantations on Ancient Woodland Sites (PAWS)</a></p> <p>WRLNRS21_PM10</p>	<p>Restore habitat by removing non-native conifer species using recognised forestry techniques such as thinning and clearfell, retaining mature and veteran native broadleaved trees to act as a seed source, allowing natural regeneration of native species where possible, creating diversity in age, structure and species composition. Take a habitat mosaic approach to incorporate open space and rides, with patches of bare ground, and ponds.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 10: w1~ 28 29</p> <p style="text-align: right;">~ = all further levels and any secondary codes</p>			
<p><b>Potential Measure 11:</b> <a href="#">Enhance condition of ancient semi-natural woodlands</a></p> <p>WRLNRS21_PM11</p>	<p>Enhance condition of ancient woodlands by increasing diversity in age, structure and species composition using techniques such as thinning, coppicing and pollarding, allowing natural regeneration of native species where possible, and by taking a habitat mosaic approach to incorporate open space and rides, with patches of bare ground, and ponds.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 11: w1~28 30</p> <p style="text-align: right;">~ = all further levels and any secondary codes</p>			
<p><b>Potential Measure 12:</b> <a href="#">Create new woodlands and plant trees outside woodland</a></p> <p>WRLNRS21_PM12</p>	<p>Create new woodland through tree planting or allowing the natural regeneration of native species, taking a habitat mosaic approach to incorporate open space and rides, with patches of bare ground, and ponds. Create ecotones at woodland edges with smaller tree species and scrub. Buffer and extend priority woodland sites. Plant trees outside woodland. Look for opportunities to deliver nature-rich native broadleaf habitat within mixed, productive woodland. Increase tree-cover connectivity across the landscape. Ecological assessments should be undertaken prior to planting to ensure other existing good quality habitat is protected. The landscape and ecological principles within the Worcestershire Woodland Guidelines should be adhered to.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 12: w1~ 30, 33, 200, 201, 202</p> <p style="text-align: right;">~ = all further levels and any secondary codes</p>			

Native Trees and Woodland continued...

# Trees, Scrub and Woodland theme

## Native Trees and Woodland continued

<b>Priorities for Native Trees and Woodland</b>			
<p><b>Biodiversity Priority 9:</b> Increase tree cover in the form of woodland and trees outside woodland, including hedgerow trees, orchard, wood pasture, riparian/wet woodland and urban tree canopy cover</p> <p><b>Biodiversity Priority 10:</b> Improve the condition of ancient semi-natural woodlands and bring more PAWs woodlands into restorative management</p> <p><b>Biodiversity Priority 11:</b> Increase the functional connectivity between woodlands at a landscape scale, to allow for species movement</p>			
<b>Potential Measures that will support delivery of these Priorities</b>			
<p><b>Potential Measure 13:</b> <a href="#">Enhance condition of existing woodlands for wildlife</a></p> <p>WRLNRS21_PM13</p>	<p>Increase diversity in age, structure and species composition within woodland, woodland edge and scrub habitats using techniques such as thinning, coppicing and pollarding, allowing natural regeneration of native species where possible. Seek to provide a year-round supply of pollen, nectar, fruit and seeds. Increase the volume of standing and fallen deadwood within woodland for invertebrates, fungi, mosses, bryophytes, bat and bird species. Provide open glades and rides with patches of bare ground and increase the availability of food plants used by invertebrates found within woodland, for example Wood White, White Admiral, Pearl-bordered Fritillary, Small Pearl-bordered Fritillary, Grizzled Skipper and Dingy Skipper butterflies. Inoculate woodland with material from adjacent established woodlands, where appropriate, to introduce fungi and ground flora communities. Look for opportunities to deliver nature-rich native broadleaf habitat within mixed, productive woodland.</p>	<p><b>Mapped Measure</b></p>	 
<p>UKHab codes for Potential Measure 13: w1~ 30 <span style="float: right;">~ = all further levels and any secondary codes</span></p>			
<p><b>Potential Measure 14:</b> <a href="#">Increase tree cover in the farmed landscape</a></p> <p>WRLNRS21_PM14</p>	<p>Increase tree cover in the farmed landscape (outside existing woodland) using new agroforestry schemes such as silvo-pasture or silvo-arable, as well as planting up shelterbelts, field corners, copses and hedgerow trees. Ecological assessments should be undertaken prior to planting to ensure other existing good quality habitat is protected. The landscape and ecological principles within the Worcestershire Woodland Guidelines should be adhered to.</p>	<p><b>Non-Mapped Measure</b></p>	    
<p><b>Potential Measure 15:</b> <a href="#">Manage deer and grey squirrel numbers to protect woodland</a></p> <p>WRLNRS21_PM15</p>	<p>Manage deer and grey squirrel populations through a landscape scale approach, to allow woodlands to naturally regenerate and to protect newly planted trees, woodland shrub and ground flora layers.</p>	<p><b>Non-Mapped Measure</b></p>	 

Native Trees and Woodland continued...

# Trees, Scrub and Woodland theme

## Native Trees and Woodland continued

### Priorities for Native Trees and Woodland

**Biodiversity Priority 9:** Increase tree cover in the form of woodland and trees outside woodland, including hedgerow trees, orchard, wood pasture, riparian/wet woodland and urban tree canopy cover

**Biodiversity Priority 10:** Improve the condition of ancient semi-natural woodlands and bring more PAWs woodlands into restorative management

**Biodiversity Priority 11:** Increase the functional connectivity between woodlands at a landscape scale, to allow for species movement

### Potential Measures that will support delivery of these Priorities

**Potential Measure 38:**  
[Increase the extent, connectedness and quality of wildlife habitats within the built environment](#)

WRLNRS21\_PM38

All built environments should allow wildlife to safely move through them and thrive within them. Decisions on the layout and design of built-up areas, at all scales, should seek to make a positive contribution to providing more, bigger and better-connected landscapes and areas of natural habitats. As a minimum, developers and decision-makers should seek to:

- Increase urban tree canopy cover, aiming for a minimum of 20%, through, for example, planting street trees, trees in green spaces, hedgerows, community orchards, or small woodland blocks, strips or corridors.
- Create and enhance areas of locally distinctive grassland with a species mix appropriate to the local geology and soil-type.
- Make individual homes, gardens and boundary features more wildlife-friendly through, for example, the installation of hedgehog highways, universal swift nest bricks and integrated bat bricks.
- Ensure lighting specifications meet those set out within Potential Measures 45 and 46.
- Create more wildlife ponds within public greenspaces and gardens.
- Incorporate sustainable water capture, storage and management features including biodiverse raingardens and Sustainable Drainage Schemes (SuDS), and design alternative solutions to engineered culverts.
- Provide green active travel corridors that function as linear wildlife habitats as well as cycleways and footways.
- Retain and restore existing or historic landscape features such as ponds, hedgerows, hedgerow trees and street trees.
- Design the layout of new gardens, greenspaces and buffers between development so that they contribute to a cohesive network of green corridors within the built environment.
- Link urban green spaces and green corridors to the local nature network in the surrounding countryside.
- Retain and enhance existing on-site habitats which are of medium distinctiveness or higher (as defined within the Statutory Biodiversity Metric).

#### Mapped Measure




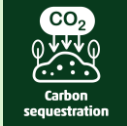




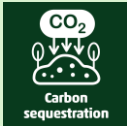


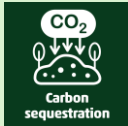



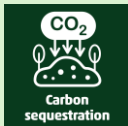




UKHab codes for Potential Measure 38: u1f 80, u~ 86, 87, 88, 89, u~ 841, 842, 843, 848, 849, 850, 830, 27

~ = all further levels and any secondary codes


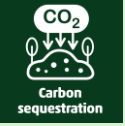



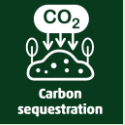


# Trees, Scrub and Woodland theme

## Hedgerows

Priorities for Hedgerows			
<p><b>Biodiversity Priority 12:</b> Increase the extent of hedgerow habitat to enhance their ability to function as linear corridors for wildlife</p> <p><b>Biodiversity Priority 13:</b> Increase the number of hedgerows in good condition for wildlife by managing them according to best practice guidelines</p> <p><b>Biodiversity Priority 14:</b> Improve shrub and ground flora diversity within hedgerows to enhance their function as a food source for wildlife</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 16:</b> <a href="#">Create new or restore lost hedgerows</a></p> <p>WRLNRS21_PM16</p>	<p>Create new native species hedgerows, including reinstatement of historic, lost or ‘ghost’ hedgerows, to enhance habitat connectivity across the landscape between areas of priority woodland, scrub or orchard habitat. Seek to include the creation of associated linear features such as banks, ditches and wildflower-rich grassy margins with the hedgerow, to widen the range of habitat niches available for species. The shrub mix should reflect the provision of suitable food sources for LNRS priority species within and adjacent to their known populations, such as the inclusion of blackthorn [Brown Hairstreak butterfly; Potential Measure 56] and bramble and honeysuckle [Dormouse; Potential Measure 51].</p>	<p><b>Non-Mapped Measure</b></p>	    
<p><b>Potential Measure 17:</b> <a href="#">Enhance condition of hedgerows</a></p> <p>WRLNRS21_PM17</p>	<p>Enhance condition of existing hedgerows informed by regular hedgerow condition assessments using available guidance and tools. Best practice includes planting up gaps, using traditional techniques such as coppicing and laying, diversifying the native species mix, rotational cutting timed to allow flowering and fruiting, leaving wide, wildflower-rich grassy margins at the base, creating or restoring associated linear features such as banks, ditches and wildflower-rich grassy margins. The shrub mix should reflect the provision of suitable food sources for LNRS priority species within and adjacent to their known populations, such as the inclusion of blackthorn [Brown Hairstreak butterfly; Potential Measure 56] and bramble and honeysuckle [Dormouse; Potential Measure 51].</p>	<p><b>Non-Mapped Measure</b></p>	    
<p><b>Potential Measure 18:</b> <a href="#">Increase numbers of hedgerow trees</a></p> <p>WRLNRS21_PM18</p>	<p>Plant new native tree species in hedgerow gaps or identify existing trees to become part of the future mature and veteran hedgerow tree stock, particularly elm cultivars which are highly resistant to Dutch Elm Disease, black poplar (in appropriate landscapes), English oak, and ash which has self-seeded or is already present as a hedgerow shrub.</p>	<p><b>Non-Mapped Measure</b></p>	   
<p><b>Potential Measure 28:</b> <a href="#">Plant hedgerow fruit trees</a></p> <p>WRLNRS21_PM28</p>	<p>Plant new hedgerow fruit trees using local provenance varieties to create connecting corridors between existing orchards, which provide pollen, nectar and fruit for wildlife.</p>	<p><b>Non-Mapped Measure</b></p>	   






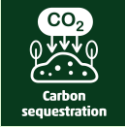


# Trees, Scrub and Woodland theme

## Wood Pasture and Parkland

Priorities for Wood Pasture and Parkland			
<b>Biodiversity Priority 15:</b> Increase the extent and improve condition of wood pasture and parkland habitat, including to buffer and connect sites of existing importance for biodiversity			
Potential Measures that will support delivery of these Priorities			
<b>Potential Measure 19:</b> <a href="#">Enhance wood pasture and parkland habitat</a>  WRLNRS21_PM19	Enhance existing or restore historic wood pasture and parkland habitat by carrying out tree planting or replacement that respects the historic design, ensuring sensitive management of mature, veteran and ancient trees, increasing the supply of standing and fallen deadwood, and carrying out extensive / conservation grazing or haymaking to create or enhance species-rich grassland understorey.	<b>Mapped Measure</b>	   
UKHab codes for Potential Measure 19: g~ 20		~ = all further levels and any secondary codes	
<b>Potential Measure 20:</b> <a href="#">Create new wood pasture and parkland habitat</a>  WRLNRS21_PM20	Create new wood pasture and parkland habitat and manage using an extensive / conservation grazing system or haymaking to buffer and link up species-rich grassland, scrub and veteran tree habitat. Consider species-rich grassland creation or enhancement measures alongside tree planting to improve species diversity in the sward.	<b>Mapped Measure</b>	   
UKHab codes for Potential Measure 20: g~ 20		~ = all further levels and any secondary codes	

# Trees, Scrub and Woodland theme

Existing and Future Ancient and Veteran Trees

Priorities for Existing and Future Ancient and Veteran Trees			
<p><b>Biodiversity Priority 16:</b> Increase the number of ancient and veteran trees being sensitively managed to extend their lifespan</p> <p><b>Biodiversity Priority 17:</b> Increase the amount of standing and fallen deadwood available for wildlife within the wider countryside</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 13:</b>  <a href="#">Enhance condition of existing woodlands for wildlife</a>                      WRLNRS21_PM13</p>	<p>Increase diversity in age, structure and species composition within woodland, woodland edge and scrub habitats using techniques such as thinning, coppicing and pollarding, allowing natural regeneration of native species where possible. Seek to provide a year-round supply of pollen, nectar, fruit and seeds. Increase the volume of standing and fallen deadwood within woodland for invertebrates, fungi, mosses, bryophytes, bat and bird species. Provide open glades and rides with patches of bare ground and increase the availability of food plants used by invertebrates found within woodland, for example Wood White, White Admiral, Pearl-bordered Fritillary, Small Pearl-bordered Fritillary, Grizzled Skipper and Dingy Skipper butterflies. Inoculate woodland with material from adjacent established woodlands, where appropriate, to introduce fungi and ground flora communities. Look for opportunities to deliver nature-rich native broadleaf habitat within mixed, productive woodland.</p>	<p><b>Mapped Measure</b></p>	 
<p>UKHab codes for Potential Measure 13: w1~ 30</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 21:</b>  <a href="#">Enhance condition of pre-veteran, veteran and ancient trees</a>                      WRLNRS21_PM21</p>	<p>Enhance condition of existing pre-veteran, veteran and ancient trees by carrying out appropriate management to prolong life and maintain habitat value for wildlife, including halo thinning within woodland or scrub, crown rebalancing or reduction, protecting root zones, and restoring soil health with a focus on fungi (mycorrhizal) communities.</p>	<p><b>Mapped Measure</b></p>	 
<p>UKHab codes for Potential Measure 21: 204, 205</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 22:</b>  <a href="#">Enhance landscape connectivity for species using veteran and ancient trees</a>                      WRLNRS21_PM22</p>	<p>Enhance connectivity and availability of habitat for dead-wood dependent invertebrates, and other species that use veteran and ancient trees including birds and bats, by retaining dead wood, carrying out veteranisation of mature trees and planting new trees, hedgerows and hedgerow trees. Add sources of nectar and pollen into the landscape surrounding veteran and ancient trees.</p>	<p><b>Mapped Measure</b></p>	   
<p>UKHab codes for Potential Measure 22: h2a, 200, 201, 202</p>		<p>~ = all further levels and any secondary codes</p>	


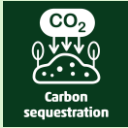


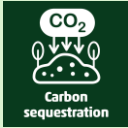



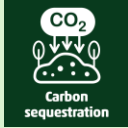


# Trees, Scrub and Woodland theme

## Scrub

Priorities for Scrub			
<p><b>Biodiversity Priority 18:</b> Increase the amount of well-managed scrub habitat</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 23:</b>  <a href="#">Create and enhance a habitat mosaic</a>                       WRLNRS21_PM23</p>	<p>Create and enhance a mosaic of locally appropriate habitats, including scrub, woodland, hedgerows, grassland, orchard, ponds and other wetland features. New and enhanced habitat mosaics should be located and subsequently managed so as to a) maximise habitat diversity within the mosaic, b) maximise the expansion, buffering and connectivity that can be delivered for (or between) existing on-site or adjacent priority habitats c) to create ecotones between habitats and d) to provide early successional habitat niches including areas of bare ground.</p> <p>If this Potential Measure is relevant to a BNG site or BNG Habitat Bank: see <b>Section 3.1 Biodiversity Net Gain</b> in LNRS Statement of Biodiversity Priorities.</p>	<p><b>Mapped Measure</b></p>	
<p>See Section 3.1 of the Worcestershire Local Nature Recovery Strategy for guidance on creating a habitat mosaic for BNG</p>			
<p><b>Potential Measure 24:</b>  <a href="#">Create and enhance scrub habitat</a>                       WRLNRS21_PM24</p>	<p>Create and enhance scrub habitat as an ecotone, in particular at woodland edges, woodland-grassland transitions, and as a component of wood pasture and traditional orchard habitats. Within larger blocks of scrub seek to create a varied structure with rides, glades and scallops and by managing with rotational cutting.</p>	<p><b>Non-Mapped Measure</b></p>	

# Trees, Scrub and Woodland theme

## Traditional Orchard

Priorities for Traditional Orchard			
<p><b>Biodiversity Priority 19:</b> Create more traditional orchard habitat</p> <p><b>Biodiversity Priority 20:</b> Bring more existing traditional orchards into a programme of life-extending, restorative management</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 25:</b> <a href="#">Enhance wildlife value of newly created and younger orchards</a></p> <p>WRLNRS21_PM25</p>	<p>Enhance wildlife value of newly created and younger orchards by carrying out formative pruning, protecting trees from pest damage, supplying (with local material) or retaining standing and fallen deadwood or brash piles, retaining some mistletoe and controlling grass and scrub at the base of trees. Manage the orchard with organic principles and enhance the habitat around the trees through the creation, restoration and management of associated habitats such as hedgerows, species-rich grassland, scrub and ponds.</p>	<p><b>Mapped Measure</b></p>	  
<p>UKHab codes for Potential Measure 25: g1~, g2~, g3a~, g3b~, g3c~ 27</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 26:</b> <a href="#">Enhance wildlife value of older traditional orchards</a></p> <p>WRLNRS21_PM26</p>	<p>Enhance wildlife value of traditional orchards through retention of standing and fallen deadwood, sensitive pruning and new planting, retention of some mistletoe if present within the orchard, and through the creation, restoration and management of associated habitats such as hedgerows, species-rich grassland, scrub and ponds. Promote the retention and re-stocking of local heritage fruit varieties. Promote connectivity between orchards through fruit tree planting in hedgerows.</p>	<p><b>Mapped Measure</b></p>	  
<p>UKHab codes for Potential Measure 26: g1~, g2~, g3a~, g3b~, g3c~ 27</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 27:</b> <a href="#">Create new traditional orchards</a></p> <p>WRLNRS21_PM27</p>	<p>Create new traditional orchards as part of increasing tree-cover connectivity across the landscape. Trees should be on vigorous rootstocks, widely spaced, and contain locally appropriate heritage fruit varieties. Manage the orchard with organic principles. Where possible incorporate a mosaic of associated habitats such as species-rich grassland, hedgerows, scrub and ponds.</p>	<p><b>Mapped Measure</b></p>	   
<p>UKHab codes for Potential Measure 27: g1~, g2~, g3a~, g3b~, g3c~ 27</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 28:</b> <a href="#">Plant hedgerow fruit trees</a></p> <p>WRLNRS21_PM28</p>	<p>Plant new hedgerow fruit trees using local provenance varieties to create connecting corridors between existing orchards, which provide pollen, nectar and fruit for wildlife.</p>	<p><b>Non-Mapped Measure</b></p>	   


# Open Habitats theme

## Floodplain Meadow and Wet Grassland

Priorities for Floodplain Meadow and Wet Grassland	
<p><b>Biodiversity Priority 21:</b> Increase the extent of floodplain meadow habitat under restoration and in good condition</p> <p><b>Biodiversity Priority 22:</b> Reduce fragmentation and increase the functional connectivity between areas of floodplain meadow</p> <p><b>Biodiversity Priority 23:</b> Increase the extent of wet grassland habitat under restoration and in good condition</p>	
Potential Measures that will support delivery of these Priorities	
<p><b>Potential Measure 3:</b>  <a href="#">Revert land to wet grassland and floodplain meadow</a></p> <p>WRLNRS21_PM3</p>	<p>Revert arable and horticultural land and intensive pasture to permanent wet grassland, stop agri-chemical inputs and manage by grazing and hay cutting. Where possible create or enhance wet grassland habitat quality to MG4 species-rich floodplain meadow.</p>
<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 3: g1~, g2~, g3a~, g3b~, g3c~, 18, 19</p>	
<p>~ = all further levels and any secondary codes</p>	


# Open Habitats theme

Lowland Meadow

Priorities for Lowland Meadow			
<p><b>Biodiversity Priority 24:</b> Increase the extent of lowland meadow habitat under restoration and in good condition</p> <p><b>Biodiversity Priority 25:</b> Reduce fragmentation and increase the functional connectivity between areas of lowland meadow</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 29:</b>  <a href="#">Create or enhance species-rich neutral grassland</a></p> <p>WRLNRS21_PM29</p>	<p>Create new and/or enhance existing areas of neutral grassland. Seek to buffer, extend and connect the areas of priority habitat which are under restoration and appropriate management and aim to increase botanical species-richness as appropriate to the habitat type. Consider the potential contribution of field margins, roadside verges and other linear corridors in enhancing habitat connectivity between sites. Take a habitat mosaic approach to incorporate scrub, orchard and ponds where appropriate. Some plant and insect species will benefit from small, discrete patches of bare ground created by animals during aftermath grazing or by other minor disturbance.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 29: g3~ 18</p>			<p>~ = all further levels and any secondary codes</p>


# Open Habitats theme

Acid Grassland and Lowland Heathland

Priorities for Acid Grassland and Lowland Heathland			
<p><b>Biodiversity Priority 26:</b> Increase the extent of acid grassland and heathland habitats under restoration and in good condition</p> <p><b>Biodiversity Priority 27:</b> Reduce fragmentation and increase the functional connectivity between areas of acid grassland and heathland habitats</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 30:</b>  <a href="#">Create or enhance species-rich acid grassland and lowland heathland</a></p> <p>WRLNRS21_PM30</p>	<p>Create new and/or enhance existing areas of acid grassland and heathland. Seek to buffer, extend and connect the areas of priority habitat which are under restoration and appropriate management and aim to increase botanical species-richness as appropriate to the habitat type. Consider the potential contribution of field margins, roadside verges and other linear corridors in enhancing habitat connectivity between sites. Take a habitat mosaic approach to incorporate scrub, fen and ponds where appropriate. Note that acidic fen and mire habitats are rare within the county and should be conserved and enhanced through the naturalisation of hydrological regimes. Allow for periodic disturbance to make areas of bare ground suitable for use by invertebrate species or by plant species that are intolerant of competition.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 30: g1~ 18</p>			<p>~ = all further levels and any secondary codes</p>






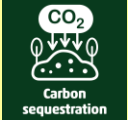

# Open Habitats theme

## Calcareous Grassland

Priorities for Calcareous Grassland	
<p><b>Biodiversity Priority 28:</b> Increase the extent of calcareous grassland habitat under restoration and in good condition</p> <p><b>Biodiversity Priority 29:</b> Reduce fragmentation and increase the functional connectivity between areas of calcareous grassland</p>	
Potential Measures that will support delivery of these Priorities	
<p><b>Potential Measure 31:</b>  <a href="#">Create or enhance species-rich calcareous grassland</a>                      WRLNRS21_PM31</p>	<p>Create new and/or enhance existing areas of calcareous grassland. Seek to buffer, extend and connect the areas of priority habitat which are under restoration and appropriate management and aim to increase botanical species-richness as appropriate to the habitat type. Consider the potential contribution of field margins, roadside verges and other linear corridors in enhancing habitat connectivity between sites. Take a habitat mosaic approach to incorporate scrub, orchard and ponds where appropriate. Allow for periodic disturbance to make areas of bare ground suitable for use by invertebrate species or by plant species that are intolerant of competition.</p>
	<p><b>Mapped Measure</b></p> 
<p>UKHab codes for Potential Measure 31: g2~ 18</p>	
<p>~ = all further levels and any secondary codes</p>	

# Open Habitats theme

Habitats associated with Arable Farmland

Priorities for Habitats associated with Arable Farmland			
<p><b>Biodiversity Priority 30:</b> Increase the number of sites supporting diverse, well-managed populations of arable wildflowers</p> <p><b>Biodiversity Priority 31:</b> Increase the abundance and diversity of pollinating insect species, birds and small mammals on farmland</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 32:</b>  <a href="#">Expand existing populations of arable wildflowers</a></p> <p>WRLNRS21_PM32</p>	<p>Enhance existing arable margins and cultivated headlands to support the expansion of populations of rare arable wildflower species.</p>	<p><b>Mapped Measure</b></p>	 
<p>UKHab codes for Potential Measure 32: c1c9</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 33:</b>  <a href="#">Create new arable wildflower sites</a></p> <p>WRLNRS21_PM33</p>	<p>Create new arable margins and cultivated headlands and manage these to provide conditions for rare arable wildflowers to flourish. Establish margins and headlands where these can provide buffering, stepping stones or connectivity between existing arable wildflower sites.</p>	<p><b>Mapped Measure</b></p>	 
<p>UKHab codes for Potential Measure 33: c1c9</p>		<p>~ = all further levels and any secondary codes</p>	
<p><b>Potential Measure 34:</b>  <a href="#">Create new wildlife habitats on cropped farmland</a></p> <p>WRLNRS21_PM34</p>	<p>Create new conservation headlands, field margins, over-winter bird food plots, and areas of rotational set-aside across farmland, using a diverse grassland species mix to provide year-round foraging, commuting and shelter opportunities for a variety of wildlife, including insects, small mammals and birds. Adopt integrated pest management in place of pesticide and herbicide use. If possible, locate new habitat where it can buffer or connect to existing similar habitats, roadside verge nature reserves, or lowland meadow priority habitat.</p>	<p><b>Non-Mapped Measure</b></p>	  

# Habitat Connectivity theme

## Local Sites Network

Priorities for Local Sites Network				
<b>Biodiversity Priority 32:</b> Increase the proportion of Local Sites that are in positive conservation management with habitats in good or recovering condition				
<b>Potential Measures that will support delivery of these Priorities</b>				
<p><b>Potential Measure 41:</b>  <a href="#">Enhance the biodiversity value of non-statutory nature conservation sites</a></p> <p>WRLNRS21_PM41</p>	<p>Enhance the habitats and other features for which the Local Wildlife Site, Local Geological Site, Roadside Verge Nature Reserve or Grassland Inventory Site has been designated (including new sites designated since LNRS publication), by implementing or continuing appropriate conservation management.</p>	<p><b>Mapped Measure</b></p>		
<p>Biodiversity Net Gain: to determine habitat creation and enhancement activity consistent with this measure refer to the Citation document for the relevant non-statutory site(s). Consistency will be achieved by delivering the Potential Measure(s) associated with the habitats for which the site has been designated. The user comments column within the Statutory Biodiversity Metric Calculation Tool should clearly articulate and justify the decision-making process, referring to the relevant LNRS Potential Measures.</p> <p><a href="#">Local Wildlife Sites   Worcestershire Wildlife Trust</a></p> <p><a href="#">Local Geological Sites: H&amp;W Earth Heritage Trust</a></p> <p><a href="#">Roadside Verge Nature Reserves   Worcestershire County Council</a></p> <p><a href="#">Contact Ecology Team   Worcestershire County Council</a></p>				
<p><b>Potential Measure 42:</b>  <a href="#">Buffer and enhance habitat connectivity around and between non-statutory nature conservation sites</a></p> <p>WRLNRS21_PM42</p>	<p>Within a minimum 50m buffer zone surrounding all Local Wildlife Sites and Grassland Inventory Sites (including new sites designated since LNRS publication), seek to create and enhance corridors or stepping stones of habitat to extend, buffer and connect the priority habitats within the nature conservation site with other adjacent or nearby priority habitat.</p>	<p><b>Mapped Measure</b></p>		
<p>Biodiversity Net Gain: to determine habitat creation and enhancement activity consistent with this measure refer to the Citation document for the relevant non-statutory site(s). Consistency will be achieved by delivering the Potential Measure(s) associated with the habitats for which the site has been designated. The user comments column within the Statutory Biodiversity Metric Calculation Tool should clearly articulate and justify the decision-making process, referring to the relevant LNRS Potential Measures.</p> <p><a href="#">Local Wildlife Sites   Worcestershire Wildlife Trust</a></p> <p><a href="#">Contact Ecology Team   Worcestershire County Council</a></p>				

# Habitat Connectivity theme


Nature Recovery Network

Priorities for Nature Recovery Network			
<b>Biodiversity Priority 33:</b> Reduce fragmentation and increase the functional connectivity and condition of habitats within the Worcestershire Nature Recovery Network			
<b>Potential Measures that will support delivery of these Priorities</b>			
<p><b>Potential Measure 23:</b> <a href="#">Create and enhance a habitat mosaic</a></p> <p>WRLNRS21_PM23</p>	<p>Create and enhance a mosaic of locally appropriate habitats, including scrub, woodland, hedgerows, grassland, orchard, ponds and other wetland features. New and enhanced habitat mosaics should be located and subsequently managed so as to a) maximise habitat diversity within the mosaic, b) maximise the expansion, buffering and connectivity that can be delivered for (or between) existing on-site or adjacent priority habitats c) to create ecotones between habitats and d) to provide early successional habitat niches including areas of bare ground.</p> <p>If this Potential Measure is relevant to a BNG site or BNG Habitat Bank: see <b>Section 3.1 Biodiversity Net Gain</b> in LNRS Statement of Biodiversity Priorities.</p>	<p><b>Mapped Measure</b></p>	
See Section 3.1 of the Worcestershire Local Nature Recovery Strategy for guidance on creating a habitat mosaic for BNG			
<p><b>Potential Measure 41:</b> <a href="#">Enhance the biodiversity value of non-statutory nature conservation sites</a></p> <p>WRLNRS21_PM41</p>	<p>Enhance the habitats and other features for which the Local Wildlife Site, Local Geological Site, Roadside Verge Nature Reserve or Grassland Inventory Site has been designated (including new sites designated since LNRS publication), by implementing or continuing appropriate conservation management.</p>	<p><b>Mapped Measure</b></p>	
See previous page for 'Local Sites Network' sub-theme			
<p><b>Potential Measure 42:</b> <a href="#">Buffer and enhance habitat connectivity around and between non-statutory nature conservation sites</a></p> <p>WRLNRS21_PM42</p>	<p>Within a minimum 50m buffer zone surrounding all Local Wildlife Sites and Grassland Inventory Sites (including new sites designated since LNRS publication), seek to create and enhance corridors or stepping stones of habitat to extend, buffer and connect the priority habitats within the nature conservation site with other adjacent or nearby priority habitat.</p>	<p><b>Mapped Measure</b></p>	
See previous page for 'Local Sites Network' sub-theme			

Nature Recovery Network continued...



# Habitat Connectivity theme

Nature Recovery Network continued

Priorities for Nature Recovery Network			
<b>Biodiversity Priority 33:</b> Reduce fragmentation and increase the functional connectivity and condition of habitats within the Worcestershire Nature Recovery Network			
<b>Potential Measures that will support delivery of these Priorities</b>			
<b>Potential Measure 43:</b> <a href="#">Create wildlife crossings over or under roads or rail lines</a>  WRLNRS21_PM43	Incorporate a wildlife crossing element into active travel or all-modes bridges or underpasses.	<b>Non-Mapped Measure</b>	
<b>Potential Measure 44:</b> <a href="#">Create arboreal links between woodland blocks</a>  WRLNRS21_PM44	Create new arboreal (hedgerow and tree) links/crossovers/hop-overs for dormice, birds, butterflies and bats through targeted tree retention and identification of future veteran trees at identified crossing points.	<b>Non-Mapped Measure</b>	



# Habitat Connectivity theme

## Transport Corridors

Priorities for Transport Corridors			
<b>Biodiversity Priority 34:</b> Increase the biodiversity value of road verges and other linear transport corridors across Worcestershire			
<b>Potential Measures that will support delivery of these Priorities</b>			
<p><b>Potential Measure 41:</b>  <a href="#">Enhance the biodiversity value of non-statutory nature conservation sites</a></p> <p>WRLNRS21_PM41</p>	<p>Enhance the habitats and other features for which the Local Wildlife Site, Local Geological Site, Roadside Verge Nature Reserve or Grassland Inventory Site has been designated (including new sites designated since LNRS publication), by implementing or continuing appropriate conservation management.</p>	<p><b>Mapped Measure</b></p>	
See 'Local Sites Network' sub-theme			
<p><b>Potential Measure 47:</b>  <a href="#">Enhance the biodiversity value of greenspace within transport corridors</a></p> <p>WRLNRS21_PM47</p>	<p>Enhance the biodiversity value of greenspace within linear transport corridors, including canal towpaths, road verges and railway lines (in-use and disused). Aim to improve 'full-lifecycle' opportunities for pollinators, birds, small mammals and other wildlife. Manage grassland in line with Plantlife best practice guidance on timing and frequency of cutting, and remove arisings where possible. Place signage where safe and appropriate to inform and educate the public. New verges and works to existing verges which require turf stripping should ensure no topsoil is reintroduced, so that the broadcast of grasses and wildflower seeds can successfully establish on low nutrient soils. Native, perennial, locally-appropriate, and 'wildlife-friendly' species-rich seed mixes should be used within planting schemes wherever possible. Where appropriate include scattered native trees and scrub, including orchards.</p>	<p><b>Non-Mapped Measure</b></p>	

# Habitat Connectivity theme

## Artificial Light at Night

Priorities for Artificial Light at Night			
<b>Biodiversity Priority 35:</b> Reduce the harm to wildlife caused by artificial light at night			
<b>Potential Measures that will support delivery of these Priorities</b>			
<p><b>Potential Measure 45:</b>  <a href="#">Reduce levels of artificial light at night in the countryside</a></p> <p>WRLNRS21_PM45</p>	<p>Artificial lighting at night should be used only where and when needed. Existing dark corridors should be maintained and protected. This can be achieved by:</p> <ul style="list-style-type: none"> <li>• Removing harmful and excess light by replacing cold-blue and white light sources (&gt;3000K CCT) with dimmer, more controlled and warmer-coloured LED lighting (&lt;2700K CCT).</li> <li>• Controlling light spill to avoid illuminating trees, hedgerows, waterbodies and watercourses.</li> <li>• Using timers or sensors to control light.</li> <li>• Strengthening lines of linear vegetation such as street trees and hedgerows.</li> </ul>	<p><b>Mapped Measure</b></p>	
UKHab codes for Potential Measure 45: w1~, h2a, 200, 201, 202		~ = all further levels and any secondary codes	
<p><b>Potential Measure 46:</b>  <a href="#">Reduce the impacts of artificial light at night on wildlife within the built environment</a></p> <p>WRLNRS21_PM46</p>	<p>Nature-sensitive lighting and lighting schemes should be used within the built environment. Where new lighting is required or upgrades, modernisation or retrofits to lighting are planned:</p> <ul style="list-style-type: none"> <li>• Use dimmer, more controlled and warmer-coloured LED lighting (&lt;2700K CCT) in place of cold-blue and white light sources (&gt;3000K CCT).</li> <li>• Control light spill to avoid illuminating trees, hedgerows, waterbodies and watercourses.</li> <li>• Using timers or sensors to control light.</li> </ul>	<p><b>Mapped Measure</b></p>	
UKHab codes for Potential Measure 46: w1~, h2a, 200, 201, 202		~ = all further levels and any secondary codes	



# Earth Heritage theme

## Soils

Priorities for Soils				
<p><b>Biodiversity Priority 36:</b> Halt the loss of soils from agricultural land</p> <p><b>Biodiversity Priority 37:</b> Improve organic matter, biodiversity, water retention capacity and carbon content within agricultural soils</p>				
Potential Measures that will support delivery of these Priorities				
<p><b>Potential Measure 35:</b> <a href="#">Improve soil health</a></p> <p>WRLNRS21_PM35</p>	<p>Improve the health and resilience of agricultural soils by adopting land management techniques that will support a reduction in soil erosion and an increase in soil organic matter, biodiversity, carbon content and water retention. Share knowledge through research or demonstration.</p>	<p><b>Non-Mapped Measure</b></p>		
<p><b>Potential Measure 36:</b> <a href="#">Protect soils from erosion</a></p> <p>WRLNRS21_PM36</p>	<p>Protect soils from erosion by removing cultivation in steeper areas, implementing no- or low-till arable management, using cover crops so ground is not left bare, planting and restoring hedgerows, and creating in-field and field edge grass buffer strips.</p>	<p><b>Non-Mapped Measure</b></p>		


# Earth Heritage theme

## Rock and Scree Habitats

Priorities for Rock and Scree Habitats			
<b>Biodiversity Priority 38:</b> Increase the number of well managed geological exposures to provide early successional habitats important for a range of plant and invertebrate assemblages and nesting birds, as well as research and educational opportunities			
Potential Measures that will support delivery of these Priorities			
<b>Potential Measure 37:</b> <a href="#">Create and enhance niche biological habitats within geological exposures</a>  WRLNRS21_PM37	Create new or enhance existing permanent geological exposures and maintain these to provide niches for unique biological habitats to thrive and to provide research and educational opportunities.	<b>Non-Mapped Measure</b>	 Pollination services  Health and wellbeing

# Green Infrastructure theme

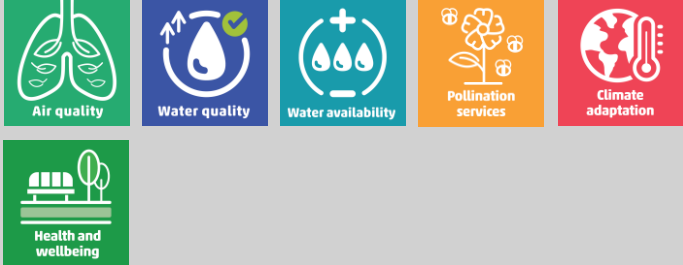

## Green Spaces in the Built Environment

Priorities for Green Spaces in the Built Environment		
<p><b>Biodiversity Priority 39:</b> Cities, towns and villages to be places richer in nature with a greater extent of connected, accessible greenspace within them</p> <p><b>Biodiversity Priority 40:</b> All built development to maximise the provision of wildlife-friendly features and corridors within their design</p>		
Potential Measures that will support delivery of these Priorities		
<p><b>Potential Measure 38:</b>  <a href="#">Increase the extent, connectedness and quality of wildlife habitats within the built environment</a>                       WRLNRS21_PM38</p>	<p>All built environments should allow wildlife to safely move through them and thrive within them. Decisions on the layout and design of built-up areas, at all scales, should seek to make a positive contribution to providing more, bigger and better-connected landscapes and areas of natural habitats. As a minimum, developers and decision-makers should seek to:</p> <ul style="list-style-type: none"> <li>• Increase urban tree canopy cover, aiming for a minimum of 20%, through, for example, planting street trees, trees in green spaces, hedgerows, community orchards, or small woodland blocks, strips or corridors.</li> <li>• Create and enhance areas of locally distinctive grassland with a species mix appropriate to the local geology and soil-type.</li> <li>• Make individual homes, gardens and boundary features more wildlife-friendly through, for example, the installation of hedgehog highways, universal swift nest bricks and integrated bat bricks.</li> <li>• Ensure lighting specifications meet those set out within Potential Measures 45 and 46.</li> <li>• Create more wildlife ponds within public greenspaces and gardens.</li> <li>• Incorporate sustainable water capture, storage and management features including biodiverse raingardens and Sustainable Drainage Schemes (SuDS), and design alternative solutions to engineered culverts.</li> <li>• Provide green active travel corridors that function as linear wildlife habitats as well as cycleways and footways.</li> <li>• Retain and restore existing or historic landscape features such as ponds, hedgerows, hedgerow trees and street trees.</li> <li>• Design the layout of new gardens, greenspaces and buffers between development so that they contribute to a cohesive network of green corridors within the built environment.</li> <li>• Link urban green spaces and green corridors to the local nature network in the surrounding countryside.</li> <li>• Retain and enhance existing on-site habitats which are of medium distinctiveness or higher (as defined within the Statutory Biodiversity Metric).</li> </ul>	<p><b>Mapped Measure</b></p> 
<p>UKHab codes for Potential Measure 38: u1f 80, u~ 86, 87, 88, 89, u~ 841, 842, 843, 848, 849, 850, 830, 27</p> <p style="text-align: right;">~ = all further levels and any secondary codes</p>		

Green Spaces in the Built Environment continued...

# Green Infrastructure theme

## Green Spaces in the Built Environment continued

Priorities for Green Spaces in the Built Environment			
<p><b>Biodiversity Priority 39:</b> Cities, towns and villages to be places richer in nature with a greater extent of connected, accessible greenspace within them</p> <p><b>Biodiversity Priority 40:</b> All built development to maximise the provision of wildlife-friendly features and corridors within their design</p>			
Potential Measures that will support delivery of these Priorities			
<p><b>Potential Measure 39:</b>  <a href="#">Enhance community green spaces for wildlife</a>                       WRLNRS21_PM39</p>	<p>Enhance community green spaces for wildlife by creating and managing areas of natural habitat appropriate to the location, for example mini-meadows, tussocky grassland, ponds, fruit trees and hedgerows and providing features such as nest boxes and hibernacula for birds, bats, hedgehogs and insects. Encourage the adoption of wildlife-friendly food production methods within growing spaces e.g. the use of natural pest control. Green spaces should be managed on organic principles with no routine use of chemicals.</p>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 39: r1~, g1~, g2~, g3a~, g3b~, g3c~, w1~, h2a, h3 <span style="float: right;">~ = all further levels and any secondary codes</span></p>			
<p><b>Potential Measure 40:</b>  <a href="#">Install gully-pot escape ladders</a>                       WRLNRS21_PM40</p>	<p>Include gully-pot escape ladders within the design of drainage systems for all new roads. Retrofit ladders to existing gully pots within ‘pondscapes’ defined by Potential Measure 7.</p>	<p><b>Non-Mapped Measure</b></p>	
<p><b>Potential Measure 46:</b>  <a href="#">Reduce the impacts of artificial light at night on wildlife within the built environment</a>                       WRLNRS21_PM46</p>	<p>Nature-sensitive lighting and lighting schemes should be used within the built environment. Where new lighting is required or upgrades, modernisation or retrofits to lighting are planned:</p> <ul style="list-style-type: none"> <li>• Use dimmer, more controlled and warmer-coloured LED lighting (&lt;2700K CCT) in place of cold-blue and white light sources (&gt;3000K CCT).</li> <li>• Control light spill to avoid illuminating trees, hedgerows, waterbodies and watercourses.</li> <li>• Using timers or sensors to control light.</li> </ul>	<p><b>Mapped Measure</b></p>	
<p>UKHab codes for Potential Measure 46: w1~, h2a, 200, 201, 202 <span style="float: right;">~ = all further levels and any secondary codes</span></p>			

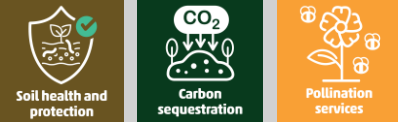
# Green Infrastructure theme

## Prioritisation of Nature Recovery

Priorities for Prioritisation of Nature Recovery				
<b>Biodiversity Priority 41:</b> The delivery of nature recovery is integral to both the strategic planning and design of new development and the development management process				
<b>Potential Measures that will support delivery of these Priorities</b>				
<p><b>Potential Measure 41:</b>  <a href="#">Enhance the biodiversity value of non-statutory nature conservation sites</a></p> <p>WRLNRS21_PM41</p>	<p>Enhance the habitats and other features for which the Local Wildlife Site, Local Geological Site, Roadside Verge Nature Reserve or Grassland Inventory Site has been designated (including new sites designated since LNRS publication), by implementing or continuing appropriate conservation management.</p>	<p><b>Mapped Measure</b></p>		
See 'Local Sites Network' sub-theme				
<p><b>Potential Measure 42:</b>  <a href="#">Buffer and enhance habitat connectivity around and between non-statutory nature conservation sites</a></p> <p>WRLNRS21_PM42</p>	<p>Within a minimum 50m buffer zone surrounding all Local Wildlife Sites and Grassland Inventory Sites (including new sites designated since LNRS publication), seek to create and enhance corridors or stepping stones of habitat to extend, buffer and connect the priority habitats within the nature conservation site with other adjacent or nearby priority habitat.</p>	<p><b>Mapped Measure</b></p>		
See 'Local Sites Network' sub-theme				
<p><b>Potential Measure 45:</b>  <a href="#">Reduce levels of artificial light at night in the countryside</a></p> <p>WRLNRS21_PM45</p>	<p>Artificial lighting at night should be used only where and when needed. Existing dark corridors should be maintained and protected. This can be achieved by:</p> <ul style="list-style-type: none"> <li>• Removing harmful and excess light by replacing cold-blue and white light sources (&gt;3000K CCT) with dimmer, more controlled and warmer-coloured LED lighting (&lt;2700K CCT).</li> <li>• Controlling light spill to avoid illuminating trees, hedgerows, waterbodies and watercourses.</li> <li>• Using timers or sensors to control light.</li> <li>• Strengthening lines of linear vegetation such as street trees and hedgerows.</li> </ul>	<p><b>Mapped Measure</b></p>		
UKHab codes for Potential Measure 45: w1~, h2a, 200, 201, 202			~ = all further levels and any secondary codes	
<p><b>Potential Measure 46:</b>  <a href="#">Reduce the impacts of artificial light at night on wildlife within the built environment</a></p> <p>WRLNRS21_PM46</p>	<p>Nature-sensitive lighting and lighting schemes should be used within the built environment. Where new lighting is required or upgrades, modernisation or retrofits to lighting are planned:</p> <ul style="list-style-type: none"> <li>• Use dimmer, more controlled and warmer-coloured LED lighting (&lt;2700K CCT) in place of cold-blue and white light sources (&gt;3000K CCT).</li> <li>• Control light spill to avoid illuminating trees, hedgerows, waterbodies and watercourses.</li> <li>• Using timers or sensors to control light.</li> </ul>	<p><b>Mapped Measure</b></p>		
UKHab codes for Potential Measure 46: w1~, h2a, 200, 201, 202			~ = all further levels and any secondary codes	

# Green Infrastructure theme

Prioritisation of Nature Recovery continued

Priorities for Prioritisation of Nature Recovery			
<b>Biodiversity Priority 41:</b> The delivery of nature recovery is integral to both the strategic planning and design of new development and the development management process			
<b>Potential Measures that will support delivery of these Priorities</b>			
<p><b>Potential Measure 48:</b> <a href="#">Maximise the biodiversity value of energy infrastructure development sites</a></p> <p>WRLNRS21_PM48</p>	<p>Energy infrastructure developments should contribute to restoring and enhancing local ecological networks. Actions could include:</p> <ul style="list-style-type: none"><li>• Creation/retention of hedgerows, ditches, stone walls, rough grassland and scrub within boundary margins.</li><li>• Creation of pollen and nectar strips and the use of climbing plants on security fencing.</li><li>• Leaving a 20-30mm gap between the base of fences and the ground.</li><li>• Creating areas of wildflower meadow and tussocky grassland.</li><li>• Using a wildflower-friendly grazing regime to manage grassland beneath/between PV panels.</li><li>• Installing artificial structures such as nest boxes, hibernacula and log piles.</li></ul>	<p><b>Non-Mapped Measure</b></p>	

## Individual Species

Priority: Recovery of <b>Water Vole</b> population		
<b>Potential Measure 49</b> WRLNRS21_SPECIES_PM49	<ul style="list-style-type: none"><li>• Carry out mink control / eradication programmes, preferably co-ordinated at a catchment or landscape scale.</li><li>• Restore watercourses and their marginal and riparian vegetation to a natural state.</li><li>• Create waterbodies and areas of wetland with significant marginal vegetation.</li><li>• Improve water quality by buffering watercourses from sources of pollution/agri-chemicals and soil run-off.</li></ul> <p><b>Supporting Habitat Potential Measures:</b> PM1, PM2, PM4, PM5, PM8</p>	<b>Mapped Measure</b>

Priority: Expand the range of the two core <b>Adder</b> populations		
<b>Potential Measure 50</b> WRLNRS21_SPECIES_PM50	<ul style="list-style-type: none"><li>• Maintain and expand range via natural colonisation and habitat creation/connectivity/restoration that includes a mosaic of scrub cover, heathland, hibernation areas (including artificial hibernacula) and wildlife corridors (hedges, raised banks, set aside, buffer strips).</li><li>• Ensure open areas maintained within broadleaved woodland (ideally away from footpaths).</li><li>• Restore damper areas, e.g. wet flushes and ephemeral ponds, and maintain humid environments as alternative habitat areas to increasingly drier habitats (due to climate change).</li><li>• Restore areas of Plantations on Ancient Woodland Sites (PAWS) back to native broadleaved woodland.</li><li>• Sympathetic grazing regimes (stocking density and timings).</li><li>• Manage predator threats and reduce disturbance to adder populations and hibernacula by: engaging with the public to raise awareness of and prevent disturbance by cats and dogs; working with landowners and shooting organisations to prevent adder predation by pheasants and promote adherence to the Code of Good Shooting Practice; working with woodland managers to prevent disturbance by forestry operations, machinery and vehicles.</li><li>• Reducing risk of fires.</li><li>• Genetic rescue of populations if appropriate.</li><li>• Regular monitoring of populations to assess range expansions or contractions and inform management.</li><li>• Increase public awareness of the species, its conservation status and habitat requirements.</li></ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM23, PM30</p>	<b>Mapped Measure</b>

## Individual Species

Priority: Expand the range of the <b>Dormouse</b> population		
<p><b>Potential Measure 51</b></p> <p>WRLNRS21_SPECIES_PM51</p>	<p>Habitat creation and enhancement for dormouse:</p> <ul style="list-style-type: none"> <li>• Landscape scale habitat restoration/enhancement and connectivity.</li> <li>• Retain (veteran) trees with cracks/crevices and deadwood.</li> <li>• Rotational coppicing/removal of woodland to maintain a well-lit understorey.</li> <li>• Ensure arboreal connections across woodland rides every 50-100m and erect dormouse boxes and/or tubes.</li> <li>• Limit clear felling where possible in dormouse locations and undertake coppicing on rotation, retaining unbroken canopy corridors and taking particular care not to remove coppice stools that may be used for hibernation.</li> <li>• Regular, long-term monitoring of populations to assess range expansions or contractions and inform management.</li> <li>• Increase the number of sites participating in the National Dormouse Monitoring Programme.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM12, PM13, PM14, PM16, PM17</p>	<p><b>Mapped Measure</b></p>
<p><b>Potential Measure 52</b></p> <p>WRLNRS21_SPECIES_PM52</p>	<p>Dormouse surveys and reintroductions:</p> <ul style="list-style-type: none"> <li>• Improve knowledge of dormouse distribution by carrying out habitat assessments and presence/absence surveys in all areas of suitable interconnected habitat, including plantations, hedgerows and scrub.</li> <li>• Use improved knowledge to develop a Worcestershire dormouse reintroduction strategy that supports the national reintroduction programme.</li> <li>• Where habitat and landscape conditions meet the necessary criteria and permits/licenses are obtained, undertake species reintroductions to suitable release sites.</li> <li>• Regular, long-term monitoring of populations to assess range expansions or contractions and inform management</li> <li>• Increase the number of sites participating in the National Dormouse Monitoring Programme.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM12, PM13, PM14, PM16, PM17</p>	<p><b>Non-Mapped Measure</b></p>
Priority: Increase nesting habitat and food sources for <b>Pied Flycatcher</b>		
<p><b>Potential Measure 53</b></p> <p>WRLNRS21_SPECIES_PM53</p>	<ul style="list-style-type: none"> <li>• Landscape scale woodland (especially oak) habitat regeneration, expansion and restoration.</li> <li>• Provision of nestboxes in suitable woodland (install in sets of 3 within a 10m radius to mitigate against nestbox competition from Tit species) and monitor nestboxes.</li> <li>• Manage habitat to increase chick food supply (predominantly caterpillars).</li> <li>• Manage understorey to keep below 1.5m (to improve visibility of displaying males).</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM11, PM12, PM13, PM14</p>	<p><b>Mapped Measure</b></p>

## Individual Species

Priority: Increase <b>Hedgehog</b> population		
<p><b>Potential Measure 54</b></p> <p>WRLNRS21_SPECIES_PM54</p>	<ul style="list-style-type: none"> <li>• In urban areas install hedgehog highways (in fences and walls) and hedgehog houses.</li> <li>• Increased planting of diverse native plant species (structure and diversity) in public greenspaces and in private gardens.</li> <li>• Create permanent leaf stores and a mosaic of grass heights and bare soil.</li> <li>• On farmland create wide, grassy field margins (to increase prey availability) and other hedgehog friendly habitat.</li> <li>• Increase habitat complexity by providing more and denser hedgerows, which also increases connectivity between wildlife friendly farms.</li> <li>• Increase uptake of Integrated Pest Management to reduce use of rodenticides, pesticides, molluscicides and insecticides.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM16, PM17, PM34, PM38, PM39, PM40, PM46</p>	<p><b>Non-Mapped Measure</b></p>
Priority: Habitat creation and enhancement for <b>Nightingale</b>		
<p><b>Potential Measure 55</b></p> <p>WRLNRS21_SPECIES_PM55</p>	<ul style="list-style-type: none"> <li>• Carry out rotational coppicing and deer management to promote structural diversity in the scrub layer. Management should aim to maximise the area of scrub at vigorous thicket stage, typically by managing a large area of habitat, ideally within a woodland edge or ecotone location, on a 10–15-year rotational cutting cycle to ensure a constant supply of vigorous new growth.</li> <li>• Many of the best patches of scrub for Nightingales contain Blackthorn, Hawthorn and, on wetter sites, Willow. Dog Rose and brambles are often present. However, the most important feature is the structure of the scrub itself rather than the species composition.</li> <li>• Create brush piles covered in dense bramble approx. 12m x 12m in size and up to 2m high, thinning surrounding trees as necessary to allow light in. Leave standard trees to function as song posts.</li> <li>• Focus efforts on creating new habitats adjacent to existing sites.</li> <li>• Monitor grazing pressure and take preventative measures (i.e. rabbit/deer fencing) if it becomes too high.</li> <li>• Re-wet areas of scrubby woodland to improve invertebrate food supply.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM13, PM15, PM23, PM24</p>	<p><b>Mapped Measure</b></p>
Priority: Habitat creation and management for <b>Brown Hairstreak</b>		
<p><b>Potential Measure 56</b></p> <p>WRLNRS21_SPECIES_PM56</p>	<ul style="list-style-type: none"> <li>• Retain and cut all hedges on a rotation so that each stretch of hedge is cut every other year, or preferably every 3-4 years.</li> <li>• Create new habitat by planting hedges using a good proportion of Blackthorn. Where possible, allow small suckers to grow into field margins and manage these on rotation.</li> <li>• Increase the connectivity of suitable habitats by creating and extending stands, trees, and hedgerows containing Blackthorn which connect existing areas. Create wide rides, glades, and scrub edges in and around woodlands.</li> <li>• Monitor populations through winter egg counts or timed counts of adults.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM13, PM16, PM17, PM18</p>	<p><b>Mapped Measure</b></p>

## Individual Species

Priority: Recovery of <b>White-clawed Crayfish</b> population		
<p><b>Potential Measure 57</b></p> <p>WRLNRS21_SPECIES_PM57</p>	<ul style="list-style-type: none"> <li>• Increased biosecurity.</li> <li>• In-channel and riparian habitat enhancements.</li> <li>• Improve knowledge of white-clawed crayfish distribution by carrying out habitat assessments and species surveys wherever suitable opportunity arises.</li> <li>• Identify further suitable locations for ARK sites, potential donor sites and provide support for captive breeding programmes.</li> <li>• If successful methodology created, removal of signal crayfish.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM1, PM4, PM5</p> <p>Potential conflict with PM62 Remove barriers to migratory fish passage</p>	<p><b>Mapped Measure</b></p>
Priority: Increase the numbers and distribution of <b>Toad</b>		
<p><b>Potential Measure 58</b></p> <p>WRLNRS21_SPECIES_PM58</p>	<ul style="list-style-type: none"> <li>• Deliver specific habitat interventions to support safe crossing of roads by migrating toads such as adjustments to timing of verge cutting and installation of natural barriers to direct toads to safer crossing points.</li> <li>• Support the operation of amphibian road-crossing patrols where these are required including signage.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM6, PM7, PM8, PM47</p>	<p><b>Non-Mapped Measure</b></p>
Priority: Recovery of <b>Turtle Dove</b> population		
<p><b>Potential Measure 64</b></p> <p>WRLNRS21_SPECIES_PM64</p>	<ul style="list-style-type: none"> <li>• Provide uncropped margins/plots, rotational set-aside, conservation headlands and buffer strips.</li> <li>• Reduce use of pesticides and herbicides, i.e. increased uptake of Integrated Pest Management.</li> <li>• Provide suitable feeding habitat, e.g. plant a bespoke seed mix, adjacent to nesting habitat and water body.</li> <li>• Provide scrub or dense hedgerow at a minimum, 3m tall and 4m wide. Cut on a long-term (15+ year) rotation.</li> <li>• Encourage and keep native thorny species and climbing plants.</li> <li>• Restore/create semi-natural grassland with bare ground.</li> <li>• Provide good quality, buffered freshwater sources, e.g. ponds and streams.</li> <li>• Supply supplementary food (see Agri-environment Species Supplement).</li> <li>• Implement the national Turtle Dove action plan.</li> <li>• Re-establish foraging and nesting habitat on historic Turtle Dove sites.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM6, PM7, PM16, PM17, PM23, PM24, PM26, PM34</p>	<p><b>Mapped Measure</b></p>

## Individual Species

Priority: Reintroduction of <b>Kentish Glory</b> moth to Wyre Forest		
<p><b>Potential Measure 67</b></p> <p>WRLNRS21_SPECIES_PM67</p>	<ul style="list-style-type: none"><li>• Rotational coppicing and strategic thinning/clear-felling of birch coupes (maintain tree height below 3m), ensuring the habitat requirement of other species present have been assessed and are not compromised.</li><li>• Captive breeding and reintroduction to suitable release sites.</li><li>• Survey and monitor populations.</li></ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM13</p>	<p><b>Mapped Measure</b></p>
Priority: Increase the numbers and distribution of <b>True Service Tree</b>		
<p><b>Potential Measure 68</b></p> <p>WRLNRS21_SPECIES_PM68</p>	<ul style="list-style-type: none"><li>• Propagate trees from local seeds.</li><li>• Reintroduce to targeted, suitable locations.</li><li>• Place Tree Preservation Orders on vulnerable trees.</li><li>• Carry out survey work to collect new records of trees.</li><li>• Carry out DNA analysis work.</li></ul> <p><b>Supporting Habitat Potential Measures:</b> PM12</p>	<p><b>Non-Mapped Measure</b></p>
Priority: Increase the numbers, genetic diversity and distribution of <b>Black Poplar</b>		
<p><b>Potential Measure 69</b></p> <p>WRLNRS21_SPECIES_PM69</p>	<ul style="list-style-type: none"><li>• Assess the current population status of Black Poplar in Worcestershire through survey work to support reintroduction, protection and management of the species.</li><li>• Reintroduce male and female trees in groups (ideally one female to several surrounding males) in suitable locations and add female trees to existing groups of male trees.</li><li>• Protect existing Black Poplars and extend the life of ancient/veteran specimens through careful management to re-balance or reduce weight in the crown.</li><li>• Protect planted Black Poplars from deer, livestock, garden machinery and herbicides.</li><li>• Maintain some male and female trees as maiden trees (i.e. do not coppice).</li><li>• Take DNA samples of existing native trees and establish a clone bank to support the planting of Black Poplar with a more diverse range of genotypes.</li></ul> <p><b>Supporting Habitat Potential Measures:</b> PM2, PM5, PM8</p>	<p><b>Non-Mapped Measure</b></p>

## Individual Species

Priority: Increase the numbers and distribution of <b>Six-spotted Pot Beetle</b>		
<p><b>Potential Measure 70</b></p> <p>WRLNRS21_SPECIES_PM70</p>	<ul style="list-style-type: none"> <li>Regular rotational coppicing of Hazel, Aspen, Birch and Crack Willow.</li> <li>Connect stands of Hazel, Aspen, Birch and Crack Willow where appropriate.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM12, PM13</p>	<p><b>Mapped Measure</b></p>
Priority: Increase the numbers and distribution of <b>Longhorn Lime Beetle</b>		
<p><b>Potential Measure 71</b></p> <p>WRLNRS21_SPECIES_PM71</p>	<ul style="list-style-type: none"> <li>Regular rotational coppicing of Small-leaved Lime.</li> <li>Connecting stands of Small-leaved Lime.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM12, PM13</p>	<p><b>Mapped Measure</b></p>
Priority: Increase the numbers and distribution of <b>Poplar Leaf-rolling Weevil</b>		
<p><b>Potential Measure 72</b></p> <p>WRLNRS21_SPECIES_PM72</p>	<ul style="list-style-type: none"> <li>Successional planting of Aspen (<i>Populus tremula</i>) in woodland at known population sites and expansion areas.</li> <li>Protect emerging Aspen against predation (deer) and trampling.</li> <li>Cut regenerating Aspen on a 4-year rotation.</li> <li>Increase/appropriately manage woodland glades.</li> <li>Captive breeding and reintroduction if appropriate.</li> <li>Survey and monitor populations.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM12, PM13</p>	<p><b>Mapped Measure</b></p>
Priority: Increase the numbers and distribution of <b>Stag Beetle</b>		
<p><b>Potential Measure 76</b></p> <p>WRLNRS21_SPECIES_PM76</p>	<ul style="list-style-type: none"> <li>Retain deadwood and stumps and create loggeries and buried deadwood piles to support larval development, with wood buried up to 50cm to provide decaying wood underground.</li> <li>Minimise use of weed matting that can trap beetles underground – use non-treated wood chip or bark instead (which also provides habitat for stag beetles).</li> <li>Cover water butts and provide escape routes from ponds.</li> <li>Avoid using pesticides and insecticides that are toxic to non-target species.</li> <li>Raise public awareness of stag beetle habitat requirements and promote wildlife-friendly gardening practices.</li> <li>Support local recording and monitoring of stag beetles and submit sightings to <a href="#">iRecord</a> and <a href="#">The Great Stag Hunt</a>.</li> <li>Safeguard known breeding sites through planning and land management.</li> <li>Explore opportunities for translocation of populations where natural dispersal is considered unlikely due to habitat loss and fragmentation.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM21, PM22, PM38, PM39</p>	<p><b>Mapped Measure</b></p>

## Species Assemblages

Priority: Increase nesting habitat and food sources for <b>House Martin and Swift</b>		
<p><b>Potential Measure 59</b></p> <p>WRLNRS21_SPECIES_PM59</p>	<ul style="list-style-type: none"> <li>Do not disturb nests or block known or potential nest sites. When replacing or refurbishing roofs ensure building work protects and maintains nesting holes and nest spaces.</li> <li>New building design to include installation of universal swift nest bricks and house martin artificial nest cups at a minimum ratio of one per dwelling within new development.</li> <li>Building renovation or retrofitting to install universal swift nest bricks if possible, or external swift nest boxes if not, and house martin artificial nest cups at a minimum ratio of one per dwelling.</li> <li>Swift or house martin calls played during breeding season.</li> <li>Implement sustainable land management practices aimed at increasing invertebrate prey populations.</li> <li>Create and enhance more green and blue spaces within and adjacent to urban areas to increase invertebrate prey populations, including species-rich grassland and wetland habitat.</li> <li>Countywide survey effort to map important populations and important buildings. Educate the public and building owners about the species and its requirements. Promote submission of records to <a href="#">British Trust for Ornithology (BTO)</a> or <a href="#">Swift Mapper</a>.</li> <li>Leave existing nests in place for the following year.</li> <li>Landscape scale wetland habitat regeneration, expansion and restoration.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM3, PM4, PM8, PM34, PM38, PM39</p>	<p><b>Mapped Measure</b></p>
Priority: Habitat creation and enhancement for <b>Woodland Bats</b> (Barbastelle and Bechstein's)		
<p><b>Potential Measure 60</b></p> <p>WRLNRS21_SPECIES_PM60</p>	<p>These bat species require multiple different habitat-based and environmental interventions to be delivered within the same location to support feeding and breeding success:</p> <ul style="list-style-type: none"> <li>Planting and restoration of hedgerows, particularly those linking broadleaved and ancient woodlands.</li> <li>Creation and maintenance of standing deadwood within broadleaved woodlands (and potential veteranisation of trees).</li> <li>Improved management of broadleaved woodland and establish dense understorey in woodland (especially around woodland ponds etc.) used by these species.</li> <li>Restoration and improved management of riparian habitat.</li> <li>Maintain and improve quality and quantity of wetland habitats.</li> <li>Dark skies initiative/create and maintain ecologically functioning dark corridors.</li> <li>Arable: promote organic/regenerative farming, field margin habitat for moths and beetles, reduction in/cessation of anti-parasitic treatments in grazing animals, reduction in pesticide use, promote organic/regen farming particularly within 3km of maternity roosts.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM2, PM8, PM10, PM11, PM12, PM13, PM14, PM34, PM45, PM46</p>	<p><b>Non-Mapped Measure</b></p>

## Species Assemblages

<p>Priority: Habitat creation and enhancement for <b>Cave and Building Bats</b> (Greater Horseshoe, Lesser Horseshoe, Brandt's and Serotine Bats)</p>		
<p><b>Potential Measure 61</b> WRLNRS21_SPECIES_PM61</p>	<p>These bat species require multiple different habitat-based and environmental interventions to be delivered within the same location to support feeding and breeding success:</p> <ul style="list-style-type: none"> <li>• Restoration, planting and gap-planting of hedgerows, with the aim of providing tall and bushy hedgerows, particularly those linking broadleaved woodland used by these species.</li> <li>• Improved management of broadleaved woodland and establish dense understorey in woodland (especially around woodland ponds etc.) used by these species.</li> <li>• Dark skies initiative/create and maintain ecologically functioning dark corridors.</li> <li>• In arable areas reduce or stop use of anti-parasitic treatments in grazing animals, reduce pesticide use particularly within 3km of maternity roosts, and promote organic/regenerative farming.</li> <li>• Conservation work to historic assets such as icehouses or follies should be sympathetic to roosting and hibernating bats.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM16, PM17, PM18, PM34, PM38, PM45, PM46</p>	<p><b>Non-Mapped Measure</b></p>
<p>Priority: Remove barriers to <b>Migratory Fish</b> (in particular, Eel, Sea Lamprey, River Lamprey, Brown Trout, Atlantic Salmon, Allis Shad, Twait Shad)</p>		
<p><b>Potential Measure 62</b> WRLNRS21_SPECIES_PM62</p>	<ul style="list-style-type: none"> <li>• Remove or modify in-channel barriers to allow passage.</li> <li>• Re-naturalise watercourse banks and beds, restore gravel beds, and create and enhance in-line wetland habitat to provide feeding and spawning opportunities.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM1, PM4, PM5, PM8</p> <p>Potential conflict with PM57 Recovery of White-clawed Crayfish population</p>	<p><b>Mapped Measure</b></p>
<p>Priority: Create and enhance habitat for <b>Wetland and Wader Birds</b> (in particular, Curlew, Redshank, Lapwing)</p>		
<p><b>Potential Measure 63</b> WRLNRS21_SPECIES_PM63</p>	<ul style="list-style-type: none"> <li>• Create and enhance habitat (including adjacent fields) to support breeding, over-wintering and passage birds. Pasture and wetland features should include areas of floodplain meadow, scrapes and ditches, open water, and rushy damp pasture. Field margins, bare ground and stubbles should be available within arable fields or rotations.</li> <li>• Locations away from Public Rights of Way or permissive access should be prioritised for habitat provision and/or minimise recreational disturbance at sites (including dogs). Protect nesting areas with electric fencing if necessary.</li> <li>• Legal control of predator numbers where possible and appropriate to reduce losses of eggs and chicks and reduce disturbance. Avoid tree planting to prevent their use by avian predators.</li> <li>• Sensitive management of grassland and pasture must include late hay cuts or strip-cutting over an extended period of several months to minimise accidental nest destruction.</li> <li>• Raise public awareness of the importance of not disturbing ground-nesting birds.</li> <li>• Carry out site surveys to establish the full, year-round assemblage of birds using sites to inform habitat management.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM3, PM8, PM9, PM34</p>	<p><b>Mapped Measure</b></p>

## Species Assemblages

Priority: Recovery of <b>Farmland Bird</b> populations (in particular, Corn Bunting, Grey Partridge, Yellow Wagtail)		
<p><b>Potential Measure 65</b></p> <p>WRLNRS21_SPECIES_PM65</p>	<ul style="list-style-type: none"> <li>• Provide overwinter stubble, bird seed-rich winter cover crops, unsprayed and unharvested arable headlands, buffer strips and beetle banks.</li> <li>• Reduce use of pesticides and herbicides in favour of increased uptake of Integrated Pest Management. Avoid use of broad-spectrum insecticides after 15<sup>th</sup> March and avoid spraying outer 6m of cereal fields.</li> <li>• Provide suitable foraging and nesting habitats e.g. restore/create semi-natural grassland, manage hedgerows on a 3-year rotation and plant wild bird seed mixes/cereal-rich wild bird cover crops.</li> <li>• Provide spring sown crops in nesting arable fields to help improve productivity by extending the breeding season, or a mosaic of autumn sown crops for later broods (for Corn Bunting).</li> <li>• Supply supplementary food.</li> <li>• Provide good quality, buffered freshwater sources, e.g. ponds, streams, wet ditches.</li> <li>• Create Skylark plots within winter cereals.</li> <li>• Delay cutting of silage and hay crops.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM6, PM7, PM16, PM17, PM29, PM34</p>	<p><b>Non-Mapped Measure</b></p>

Priority: Recovery of <b>Fritillary Butterfly</b> populations (Pearl-bordered Fritillary, Small Pearl-bordered Fritillary)		
<p><b>Potential Measure 66</b></p> <p>WRLNRS21_SPECIES_PM66</p>	<ul style="list-style-type: none"> <li>• Seek to create and strengthen connectivity of well-managed habitat between occupied sites and those that are unoccupied but suitable.</li> <li>• Engage with landowners to secure commitment to long-term appropriate management, particularly post-reintroduction.</li> <li>• Establish long-term habitat monitoring and species population monitoring on known sites to inform management.</li> </ul> <p>Open habitat measures:</p> <ul style="list-style-type: none"> <li>• Specific bracken management to establish optimum density of bracken, dog violet and marsh violet. Use of machinery e.g. robo-cutter and/or livestock at suitable stocking density.</li> <li>• Breeding programme and reintroduction to suitable release sites.</li> </ul> <p>Woodland measures:</p> <ul style="list-style-type: none"> <li>• Rotational coppicing.</li> <li>• PAWS restoration.</li> <li>• Rotational management of open areas (glades, rides, etc.) which are not grazed to ensure a succession of habitats.</li> <li>• Create/maintain woodland flushes in a mix of shaded and unshaded areas.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM13, PM23, PM29, PM30, PM31</p>	<p><b>Mapped Measure</b></p>

## Species Assemblages

Priority: Increase the numbers and distribution of <b>Rare Plants</b> (Tower Mustard, Deptford Pink, Sand Catchfly, Round-leaved Wintergreen, Round-leaved Sundew)		
<p><b>Potential Measure 73</b></p> <p>WRLNRS21_SPECIES_PM73</p>	<ul style="list-style-type: none"> <li>Collect seed, propagate and reintroduce to targeted locations.</li> <li>Appropriate habitat management where present/reintroduced (e.g. scrub clearance, periodic disturbance).</li> <li>Survey and monitor populations.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM8, PM11, PM30, PM41, PM47</p>	<b>Non-Mapped Measure</b>
Priority: Increase the numbers and distribution of <b>Helleborine</b> species (Narrow-leaved Helleborine, White Helleborine)		
<p><b>Potential Measure 74</b></p> <p>WRLNRS21_SPECIES_PM74</p>	<ul style="list-style-type: none"> <li>Habitat management to maintain correct light levels (dappled shade). Do not plant conifer or other evergreen species such as Holly and Yew in order to prevent overshadowing.</li> <li>Create adjacent areas of exposed soil for seeds to settle on and germinate in.</li> <li>Protect populations from deer browsing.</li> <li>Monitor existing populations and carry out survey work to identify new populations.</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM10, PM11, PM13</p>	<b>Non-Mapped Measure</b>
Priority: Increase the numbers and distribution of rare <b>Wet Woodland Plants</b> (Elongated Sedge, Alder Bolete and <i>Pholiota lucifera</i> (Scalycap fungus))		
<p><b>Potential Measure 75</b></p> <p>WRLNRS21_SPECIES_PM75</p>	<ul style="list-style-type: none"> <li>Replant Alder to reconnect habitat.</li> <li>Long-term rotational coppicing of Alder and Willow.</li> <li>Retain dead wood (especially Alder).</li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM2, PM8, PM10, PM11, PM13</p>	<b>Mapped Measure</b>
Priority: Increase the numbers and distribution of <b>Waxcap and other Grassland Fungi</b>		
<p><b>Potential Measure 77</b></p> <p>WRLNRS21_SPECIES_PM77</p>	<ul style="list-style-type: none"> <li>Countywide survey effort to locate, document and record the condition of more of Worcestershire's 'old grasslands' to enhance the county Grassland Inventory.</li> <li>Survey for waxcaps and other grassland fungi on likely sites during the autumn. See <a href="#">Plantlife ID Guide</a>.</li> <li>To conserve and enhance populations of waxcap and other grassland fungi: <ul style="list-style-type: none"> <li>❖ Maintain a short sward height, especially during late summer/early autumn, either through localised, low-impact livestock grazing or mowing (remove cuttings to maintain low nutrient levels).</li> <li>❖ Avoid ploughing/scarification and application of fertilisers, manures, pesticides or mosskiller.</li> <li>❖ Avoid activities that cause soil compaction e.g. heavy machinery or rutting by vehicles and bikes.</li> <li>❖ Prevent encroachment/establishment of trees and scrub.</li> </ul> </li> </ul> <p><b>Supporting Habitat Potential Measures:</b> PM29, PM30, PM31, PM39</p>	<b>Non-Mapped Measure</b>

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