

## Herefordshire Local Nature Recovery Strategy

### Mapping Proposals – July 2023

Please see attached 'Mapping Flow Chart' which sets out a staged approach to LNRS work and is taken from the Defra Statutory Guidance.

#### Baseline

Based on discussions with Gloucestershire Wildlife Trust (GWT) a baseline map as set out in the Defra LNRS Statutory Guidance has not been compiled for Herefordshire.

The Guidance is very clear (paragraph 21 and 22) on what can be included in the baseline mapping. This is in order that all the baseline maps can be amalgamated into a national map.

The baseline must include:

- Nationally designated sites (SSSI's and NNRS).
- Local Nature Reserves (LNRs).
- Local Wildlife Sites (LWS).
- Irreplaceable habitats (waiting on LNRS definition but currently using NPPF definition of ancient woodlands, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen).
- Any other habitat which the Secretary of State writes to the RA and instructs them to include.

Paragraph 26 of the guidance is clear that 'Responsible authorities should not map any other areas that are not mentioned in paragraph 22 as being of particular importance for biodiversity.'

#### Challenges

One of the reasons which this was not included in the mapping work for Herefordshire by GWT is that the Local Wildlife Sites data currently does not include habitat information. It just identifies the boundary. The LWS cannot be taken into the opportunity mapping in this format and so were excluded from the work.

#### Options

To allocate a single habitat type to each LWS based on the site description (citation) alone.  
 To use aerial photography and the site citation to assign a habitat type, or types, to each LWS.  
 To phase 1 habitat survey each LWS and digitise the resultant data.

#### Proposed Actions

Action number	Description	Staff	Resource	Timescale
1	HC to amend the Local Wildlife Sites data using staff/volunteers and a mixture of the site citation and aerial photography to a) allocate one habitat type to sites where one type dominates and b) to map compartments and allocate habitat types to each compartment on other sites.	EG at HBRC to lead	Estimated 190 hours of work over a 2-3 month period.	September 2023 – January 2024

Action number	Description	Staff	Resource	Timescale
2	HC to create baseline map in house with amended LWS data, nationally available data sets and responding to forthcoming irreplaceable habitats definition from Defra.	EG at HBRC to lead	LWS work under action 1. Other datasets available and ready for use. Dependent on 'irreplaceable habitats' definition.	February/March 2024

## Opportunity Mapping

The work which GWT have done for Herefordshire covers this stage of the LNRS mapping process. HC met HWT and then separately with Juliet Hynes who carried out the mapping work, seeking to understand what has been done so far and the potential for taking that work further.

### What has been done so far?

An opportunity map has been produced based on a range of national habitat inventories along with phase 1 habitat mapping provided by HBRC.

Habitats have been grouped into 3 networks: open habitats, wetland habitats and woodland habitats and each element of the network has been weighted for permeability and for the opportunity it represents.

A habitat intersection map has been produced showing where each habitat network intersects with another network. This layer indicates where habitat creation, restoration or management would need to take more than one set of priorities into account in order to maintain permeability of both/all networks present.

### What changes in approach have GWT made since mapping Herefordshire?

GWT are applying this work in Gloucestershire and in Worcestershire and several amendments have been made or are proposed to the approach:

- A forth habitat network relating to arable land has been mapped. This was always the intention but a methodology for arable land took longer to develop so this element is not included in the Herefordshire mapping currently. This is derived from the needs of both ground nesting and hedge/tree nesting farmland birds and important arable plant areas (Plantlife) and relates to Countryside Stewardship Option data. This has been applied to Gloucestershire and Worcestershire.
- An amendment is proposed to the methodology for mapping the wetland network to separate out wetlands from waterbodies and to apply separate methodologies for identifying opportunities for each. This would be based, in part, on Cranfield soil data. This is being worked up by GWT and WWT and will be applied to Gloucestershire and Worcestershire going forward.

### Challenges going forward in Herefordshire

GWT have identified that the coverage and quality of the phase 1 habitat mapping that exists for Herefordshire is an issue within the model and that its nature (complete coverage at unknown

quality) can mask some of the other data sets. Juliet recommended an amended approach to Phase 1 habitat data if we were to look again at the modelling.

GWT have identified that the vast areas of high quality (grade 1 and 2) agricultural land in Herefordshire, when compared to Gloucestershire and Worcestershire, might warrant an amended approach to part of the model. Currently high grade agricultural land is classed as 'low opportunity' for habitat creation/restoration in the model in order to balance food production with restoration of biodiversity. Opportunities to improve permeability are identified but large scale habitat creation is prioritised to lower quality agricultural land. That approach might result in a lack of opportunities in some areas of Herefordshire and we would need to consider how we strike that balance between nature's recovery and food production.

These, and the Local Wildlife Sites data (above), were the biggest challenge specific to Herefordshire.

### Options

Phase 1 habitat mapping options:

- A) Remove the phase 1 mapping altogether and rely only on habitat inventories and priority habitat layers. This is unlikely to achieve sufficient coverage for the model.
- B) Remove the phase 1 mapping and replace it with:
  - i. Habitat inventories
  - ii. Priority habitat layers
  - iii. Gap fill with automatic aerial photography interpretation tool (noting that these tools are very bad at differentiating between grassland habitat types)
- C) As B but in stage (iii) remove the grassland parcels and further increase quality of decision making for these habitats by using a combination of the aerial photography interpretation outcomes, the BAP Priority Habitat Inventory for Herefordshire, NE habitat inventories, grassland surveys where they exist and data held by Herefordshire Meadows group.
- D) Follow option C for the initial iteration of the opportunity map and then carry out a grassland specific survey project to ground truth the outcomes in order to feed better quality data back into the opportunities map at the first revision (between three and ten years from April 2023).

### Actions

Action number	Description	Staff	Resource	Timescale
3	HC to seek a quote from GWT to carry out the opportunity mapping for Herefordshire and additional quotes or evidence as required under procurement rules. Approach based on work already completed but with amendments around the addition of the arable network, the amended methodology for the wetland network, an amended approach to weighting opportunities in high quality arable land, an amended approach to the input of phase 1 habitat data if using GWT.	ED to lead	Officer time  Unknown cost until quote(s) received	Quotes – Sept/Oct 2023  Work – March 2024 – September 2024

Action number	Description	Staff	Resource	Timescale
4	HBRC to establish a methodology for improving the phase 1 habitat data to be input into the model. HBRC to carry out the work to prepare the layer and provide to the consultant.	EG at HBRC to lead	Unknown (EG working up)	Sept – Dec 2023??
5	HC to work with the consultant and the steering group to explore options around weighting of high quality agricultural land in opportunity mapping and to establish an agreed methodology.	FL to lead	Staff time, consultant time, steering group time.	Jan/Feb 2024
6	HBRC and HC to prepare a grasslands survey project brief and associated costings. To procure against that brief and to produce a ground trothed grassland habitat layer for future iterations of LNRS mapping.	EG at HBRC to lead	Unknown at this time	By April 2028.