Environment Act Habitat Target - Reporting Data Model and Standard

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Natural England Technical Information Note TIN223

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Contents

The habitat target

The long-term legally binding Environment Act habitat target is to restore or create more than 500,000 hectares of a range of wildlife-rich habitats outside of protected sites by 31st December 2042.

The target will only count actions taken on areas that were not already wildlife-rich, because the target is to increase the total extent of wildlife-rich habitat. The Technical Information Note TIN219: 'Environment Act Habitat Target - Definitions and Descriptions' defines what is meant by wildlife-rich habitat.

This document was prepared jointly by Defra and Natural England and sets out the data required for reporting against the habitat target. This document will be regularly reviewed and updated where required.

The content of this document is to support external partners who may wish to supply information on the activities they are undertaking to restore or create wildlife-rich habitat.

Action-based Target

The target is an action-based (rather than outcome based) target, so information is required about the actions taken to restore or create wildlife-rich habitat and the size of the area intended to become wildlife-rich habitat as a result of those actions.

An action is defined as the interventions needed to create or restore habitat that would reasonably be expected to lead to wildlife-rich habitat. The interventions required to create or restore wildlife-rich habitat will vary depending on the starting land use and expected wildlife-rich habitat outcome, but may include:

- interventions aimed at removing or reducing pressures (e.g. removal of invasive non-native species, blocking drainage ditches, ceasing the use of fertilizers, or preventing grazing damage by changing stocking densities), and/or
- adding elements (e.g. by planting native trees and hedgerows or introducing an appropriate level of disturbance).

In many cases a suite of interventions will be required to be confident that wildlife-rich habitat will be established as a result. Where there is confidence that all these interventions will be undertaken and that they are sufficient to result in wildlife-rich habitat they should be grouped as a single action and their area of influence reported.

For example, an agri-environment scheme (AES) option might include several interventions to achieve the desired outcome. The same is likely to be true of multiple interventions in other funded projects. Alternatively, if there is only a single intervention that is insufficient on its own to deliver the outcome of wildlife-rich habitat, this should not be reported.

Interventions may be at a single point or across an area. Where the interventions are across an area, the size of the intervention area will often align closely to the size of the influenced area that is expected to become wildlife-rich habitat. For example, for an intervention involving planting native species to create a wildlife-rich native woodland habitat, the area of intervention (the area planted) aligns well with the area of influence (the area expected to become wildlife-rich woodland).

However, there may be cases where the intervention(s) have a footprint that is different in size or location to that of the wildlife-rich habitat expected to be established. For example, for peatland restoration where the intervention is blocking drainage ditches, the intervention footprint will cover a small area, but the area of peat rewetted (area of influence) will be much larger. In these cases, the area of influence where it can be reasonably expected for wildlife-rich habitat to be created or restored in response to the action taken should be reported. For actions that are included in the peat restoration roadmap this equates to the delivery unit boundary.

As this target seeks to record the size and location of the area intended to become wildlife-rich habitat following interventions, the reported area will be the area of influence expected from the interventions.

Outcomes of actions

Data is not required on the outcome of the action (i.e. the condition of resulting wildlife-rich habitat), as recovery as a response to actions can be ongoing. However, restoration may require multiple actions across different elements, particularly for water habitats where action is needed across hydrological, physical, chemical, and biological elements. This can make it hard to have confidence that any one action will lead to the wildlife-rich habitat outcome required for the action to be reported.

In such cases, confidence that outcomes will be achieved as a result of action may only be possible using outcome data from monitoring programmes. This data will be accepted where appropriate, and the required variations in the data model for these situations are set out in italics in the data model (see Data Model).

Where there is no longer confidence that the action is reasonably expected to lead to wildlife-rich habitat, the area will be removed from the figures reported against the target.

Data Sources

Reporting against the habitat target by Defra will draw on existing bulk data from Defra Group delivery mechanisms, e.g., data on AES.

Data from organisations and individuals outside of the Defra Group, e.g., from Other Government Departments (OGD), non-government organisations, private entities, or individuals, could also support reporting against the habitat target.

Data provided by external partners could provide new data on actions delivered outside of Defra Group mechanisms or add valuable additional context or resolution to information sourced from bulk data.

Defra seek to keep the reporting burden as low as possible for external partners who may wish to supply information on their wildlife-rich habitat restoration and creation activities, and as such advise that providing data on actions delivered outside of Defra Group mechanisms would be of most benefit to reporting.

Defra and Natural England are working to develop the approach to collecting data from external partners for reporting purposes. This document focuses on the type and standard of data required for reporting against the target.

Reporting of action that contributes to the habitat target by external partners is voluntary. It is unlikely that all actions undertaken by external partners that may contribute will be recorded.

However, any habitat creation/restoration action taken by external partners that is not captured in reporting will still benefit nature recovery.

Data Model

The Environmental Targets (Biodiversity) (England) Regulations 2023, sets out that a record must be maintained of action that has been or is being undertaken to restore or create wildlife-rich habitat, including the:

- location of the action,
- size of the area intended to become wildlife-rich habitat, and
- type of wildlife-rich habitat that is being restored or created.

Defra and Natural England have devised a ‘minimum viable’ data model to meet the reporting requirements outlined above. The guiding principle is to reduce complexity as much as possible on what is asked of data contributors.

Data contributors will need to address certain mandatory data requirements that will enable Defra to have sufficient confidence that the action can count towards the habitat target (see Mandatory data). There will also be optional fields through which additional useful information can be supplied (see Optional data).

The requirement also includes metadata describing each submitted dataset. The metadata supplied by data contributors will enable Defra and Natural England to develop comprehensive metadata for the aggregated dataset that will be used for reporting.

Metadata standard

Metadata provides information on the dataset submitted. Metadata is needed to have a thorough understanding of the origin and scope of each dataset and to enable traceability.

Metadata should be recorded in table format, for example using a spreadsheet.

The metadata standard is based on the GEMINI standard: the UK geographic metadata standard which provides guidance on how to publish geographic metadata in a way that conforms to UK government guidelines and the relevant ISO standards.

Metadata Categories (*mandatory)	Explanation	Standard	Example
Title *	Name Given to the Data Resource	Freetext 256 characters	The name should be readily recognisable e.g. Environment Agency Conservation Projects 2023
Alternative Title	Option to provide a fuller or shorter title for the data or an alternative name.	Freetext	Should be provided when the data resource has more than one title
Abstract *	Brief narrative summary of the data resource	Freetext	The abstract should provide a clear statement of the content of the dataset, and not general background information. e.g. This spatial dataset describes the delivery through eligible habitat restoration actions carried out by FCP in CS Management agreements commencing in 2023
Extent *	Geographical Extent (Bounding Box)	The bounding box shall be expressed with westbound and eastbound longitudes, and southbound and northbound	The bounding box describes the extent of the dataset

Metadata Categories (*mandatory)	Explanation	Standard	Example
		latitudes in decimal degrees, with a precision of at least two decimals.	
Spatial Reference System *	Identifier of the system of spatial referencing, whether by co-ordinates or geographic identifiers used in the data resource	OSGB36 National Grid	Polygons should be provided as shapefiles mapped to OSGB36 National Grid. Points should be provided as 6 figure BNG Northing and Easting mapped to OSGB36 National Grid for each action area
Temporal Extent - Start Date of Data Capture *	Start date for the content of the data resource.	Date YYYY-MM-DD	Temporal extent is the date of validity of the data e.g. 2022-01-01
Temporal Extent - End Date of Data Capture *	End date for the content of the data resource.	Date YYYY-MM-DD	Temporal extent is the date of validity of the data e.g. 2022-12-31
Data Provider *	Who provided the data	Freetext	Organisation providing the data
Date of Creation *	Date the dataset was created.	Date YYYY-MM-DD	Date Dataset was Finalised
When dataset Received *	Date when dataset was received	Date YYYY-MM-DD	Receiving Organisation to Record
Date of Last Revision *	Date when dataset was last revised (if at all).	Date YYYY-MM-DD	May not be needed. But to identify any alterations after receipt
Lineage *	Information about the events or source data used in the construction of the data resource	Freetext	Explains how this data came into existence and the stages it has passed through.

Metadata Categories (*mandatory)	Explanation	Standard	Example
	Describe source material, listing including information on each dataset used, data collection methods or processes used to create or update data, data standards used, and quality assurance and quality control processes.		
Licence*	Licence for dataset	Freetext	Description of any Licence Supplied with Dataset
Use Constraints	Detail the permissions and restrictions on using the data	Freetext	
Copyright*	What copyright text/statement(s) is/are required for this data? (Based on whether any new IP has been created and any pre-existing IP this data contains)	Freetext	
Responsible Organisation *	Name of the organisation responsible for the establishment, management, maintenance & distribution of the data. Organisation name should be generic, not those of individual people.	Freetext	e.g. Natural England
Contact address*	Email address contact for the organisation responsible for the establishment, management, maintenance and distribution of the data. Email address should be generic, not those of individual people.	Email Address	Generic email address for the contributing organisation e.g. Enquiries@xxxx.org

Data standard

The Data Standard sets out the minimum standard of data required, and the format data should be supplied in to enable a record of action to count towards the habitat target. Consistent and high-quality data is needed to allow confidence in reporting.

Mandatory data

Data contributors should provide spatial data (e.g. as a shapefile, file geodatabase or geopackage). The extent of wildlife-rich habitat expected from the action should be represented by polygons (or lines for linear habitats, and points for very small habitats like ponds) attributed to enable the fields in the below table to be populated.

Each polygon, line, or point should represent a patch of wildlife-rich habitat expected to result from the action taken on the site to which the record relates.

If data contributors are unable to provide polygons, then point data that is representative of the area where action is taken where wildlife-rich habitat will be established will be accepted. Post-hoc transformation of point data into indicative polygon data may be undertaken once data is shared, for instance to create buffers around points using the data provided on extent of the area influenced.

If data contributors are unable to provide spatial data, the data in a table (for example as a spreadsheet) with a representative coordinate given in British National Grid for each action may be accepted. This should be a 6 figure BNG Northing and Easting mapped to OSGB36 National Grid for each action area.

Where polygon spatial data is not available, point data will allow reporting but will be less accurate and robust. This is because accurate polygon spatial data will help avoid double counting by enabling actions reported by multiple stakeholders or mechanisms in the same area to be distinguished.

Each spatial record should be attributed as the table below:

Field	Explanation	Standard	Example
Source Dataset **Src_Data**	Name of Source Dataset This should be consistent with the Metadata field 'Title'	Maximum 254 characters YY_abbreviated organisation name_delivery mechanisms	24_Orgname _Delivmech
Source Data Reference	Database reference from source dataset, to enable traceability and mapping of data back to contributors	Maximum 60 characters	Agri-environment scheme

Field	Explanation	Standard	Example
Src_Ref			agreement number
Data Provider **Dat_Prov**	Organisational Provider This should be consistent with Metadata field 'Organisation Name'	Maximum 60 characters	Forestry Commission
Size of area expected to become wildlife-rich habitat ***Or size of area created or restored if outcome data provided.*** **Hab_Amt**	A figure for the amount of wildlife-rich habitat expected to be created or restored in response to actions undertaken on the site the record relates to. The amount should be calculated in two-dimensional space, not corrected for topography.	Maximum 15 characters Number given to 3 decimal places where possible	20.000
Unit associated with extent figure **Hab_Unit**	The unit associated with the figure provided for the amount of each habitat created or restored.	Allowable values are: • Hectares • Kilometres If contributors wish to provide a figure for linear habitats in hectares, local knowledge of the width of the habitat should be used for the transformation from kilometres or metres to hectares. Where this knowledge does not exist, an assumed width of 1.5 metres for hedgerows, and 5 metres for rivers can be used.	Hectares

Field	Explanation	Standard	Example
Type of wildlife-rich habitat expected to be restored or created ***or type of wildlife-rich habitat created or restored if outcome data is provided*** **Hab_Type**	Wildlife-rich habitat is defined by the legislation that sets the statutory habitat target. Annex A includes the list of allowable values for wildlife-rich habitats. Contributors should give the most precise descriptor name of the type of wildlife-rich habitat where possible. Where the specific wildlife-rich habitat name is not known, there is an option available for this. However, there must be confidence that one of the specific wildlife-rich habitats will be created or restored. In situations where there is minimal intervention and restoration is a result of removing pressures, the exact habitat type that is expected may be unknown. In these cases, so long as there is confidence that the endpoint will be one of the wildlife-rich habitat types, the habitat type can be reported as 'mosaic wildlife-rich habitat' followed by a comma separated list of the broad habitats expected.	See Annex A – Allowable values for 'Type of wildlife-rich habitat' Each polygon, line, or point should map the individual habitat patch expected. If pressures have been removed and a mosaic habitat is expected the patch should be reported as 'mosaic wildlife-rich habitat (comma separated list of habitats).	Lowland calcareous grassland priority habitat See Annex A – Allowable values for 'Type of wildlife-rich habitat'
Funding Mechanism used **Act_Mech**	Description of how the action was funded	Maximum 254 characters List of comma-separated values if multiple funding mechanisms used	Countryside Stewardship See Annex B – Suggested values for

Field	Explanation	Standard	Example
		See Annex B – Suggested values for 'Funding mechanism used'	'Funding mechanism used'
Description of the restoration or creation action undertaken ***Optional if outcome data provided.*** **Act_Desc**	A high-level description of the action that has been undertaken as part of creation or restoration activity. This information will support validation of data and provide confidence for the actions to be counted.	Maximum 254 characters If part of a standard scheme, offer name or option should be used, e.g. England Woodland Creation Offer (EWCO) or Countryside Stewardship (CS) WN7 Where this is not possible, the description of the action undertaken should acknowledge how action has addressed the 5 pillars of natural functioning: 1. Restoring natural hydrology (e.g. dealing with drainage, abstraction or water level control structures). 2. Restoring natural nutrient levels and eliminating other chemicals/pollutants. 3. Removing artificial structures and/or restoring natural soil/sediment types and processes or restoring topographic variation. 4. Vegetation management. 5. Restoring natural species assemblages e.g. removing non-native species or introducing typical species.	1. Blocked ditches 2. Ceased applications of fertilizer 3. Dug pond 4. Reduced grazing pressure 5. Initiated non-native species control programme
Date action to restore or create habitat started	This should be the date that actual work on the ground started.	YYYY-MM	2024-09

Field	Explanation	Standard	Example
Date habitat created or restored was first observed if outcome data provided. **Act_Date**	In some cases, the exact date when action began may not be known. In these cases, the date that an agreement or grant is signed could be used, or the date that a claim for completed works is made.		
Date type **Date_Typ**	This should explain the type of date provided in Act_Date	Max 60 characters Allowable values are: • Date action started • Date legal agreement started • Date claim for work submitted • Date initial site preparation completed • Other (specified)	Date action started
Baseline Habitat Type **Hab_Base**	What habitat type was present before the restoration or creation action. The target will only count actions taken on areas that were not already wildlife-rich, because the target is to increase the total extent of wildlife-rich habitat. For some delivery mechanisms, this data will not be routinely collected. In these cases, alternative information will be used to quality assure that an increased extent of wildlife-rich habitat is being created or restored.	Maximum 254 characters See Annex C – Allowable values for 'Baseline habitat type'	Arable See Annex C – Allowable values for 'Baseline habitat type'

Optional data

To understand the impact of creation and restoration actions, including to evaluate how action is supporting delivery of the species targets and to help identify potential duplication, additional contextual information will be useful.

Additional information can be provided through optional fields, and data contributors are encouraged to populate these as far as possible.

Field	Explanation	Standard	Example
Lead Delivery Organisation **Lead_Org**	This should indicate the delivery organisation that led the project. Determining the project lead organisation is up to the discretion of the data contributor, but could be done through considering which organisation: • did the most action on the ground, • provided the most funding, • owned the land where the action was undertaken, • or another factor. If there is no lead organisation, this field can be left blank.	Maximum 60 characters	National Trust
Other Delivery Organisations or Partners **Oth_Org**	This should list any other organisations involved in delivery of the restoration or creation action.	Maximum 254 characters List of comma-separated values if multiple delivery organisations involved Partners should be listed by organisation name rather than the names of individuals	WWT,Environment Agency,RSPB

Field	Explanation	Standard	Example
Ongoing management or protection **Mgmt**	This should note any ongoing management activity or protection afforded to the area of habitat that has been created or restored. This field may not be possible to fill out at the time that data is collected if reporting is done as actions are underway and may only be known if actions are being reported after a wildlife-rich habitat outcome has been observed.	Maximum 254 characters	• Relevant ELM Scheme Management Option • Conservation covenant • Local Nature Reserves • Accredited carbon credit projects
Duration of current funding for action **Act_Dur**	How long the funding for the action will last	Years and Months	0 year, 6 months
Amount of funding for action **Act_Fund**	How much funding is secured for this action	Figure to nearest whole number in GBP	£75,000

Actions with particular reporting considerations

There are some delivery elements for which a different approach will be needed in reporting. For instance:

a. The contribution of arable field margins to the habitat target will be capped at 40,000 hectares above the baseline amount present in 2022. This is because arable field margins are ephemeral, moveable, and relatively easy to deliver. As such the contribution from arable field margins may not be mapped, but will be reported through delivery statistics up to the agreed cap.

b. Biodiversity Net Gain (BNG) will count towards the habitat target where an excess of wildlife-rich habitat has been created or restored beyond the direct replacement of existing habitat. The direct replacement of habitat by BNG does not count. BNG actions can be mapped where data is available, but the contribution of BNG to the habitat target will be reported separately as only the 10% gain from BNG can be counted towards the habitat target.

Annex A – Allowable values for ‘Type of wildlife-rich habitat’

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
Mixed	**Mosaic wildlife-rich habitat (followed by comma separated value list of the types of wildlife-rich habitat broadly expected)**	The desired outcome for this allowable value should be the relevant desired outcome(s) listed below for the wildlife-rich habitats that are present in the mosaic.
Arable and horticulture	**Arable field margin priority habitat**	Aim to meet agreed habitat definition for arable field margins Recorded simply as the area of selected AES options
Grassland	**Wildlife-rich grassland - type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich grassland habitat is unknown, but there is confidence that one of the wildlife-rich grassland habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich grasslands listed below.
Acid Grassland	**Wildlife-rich acid grassland - type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich grassland habitat is unknown, but there is confidence that one of the wildlife-rich grassland habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich grasslands listed below.
Acid Grassland	**Lowland dry acid grassland priority habitat**	Aim to meet priority habitat definition for Lowland dry acid grassland also see PHI Guidance and ‘good condition’ as outlined in the BNG Condition Assessments sheets Tab 6A ‘Grassland Med High & V. High’
Acid Grassland	**Wildlife-rich lowland acid grassland**	Aim to meet 'good condition' for ‘other lowland acid grassland’ as outlined in the BNG Condition Assessments sheets Tab 6A ‘Grassland Med High & V. High’.

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
Acid Grassland	**Wildlife-rich Upland dry acid grassland** **Nardus grassland on siliceous substrates in mountain areas.** **Wildlife-rich wax cap grasslands in the uplands**	Wildlife-rich upland acid grasslands of sufficient quality should aim to meet one of the following 3 criteria: (i) The lowland dry acid grassland definition but occur in the uplands (ii) Meet the annex 1 of the EU Habitats Directive habitat definition for nardus grassland on siliceous substrates in mountain areas. (iii) Meet the criteria for wax cap grasslands and be in the uplands. Also aim to meet 'good condition' for 'upland acidic grassland' as outlined in the BNG Metric Tab 6A 'Grassland Med High & V. High'.
Calcareous Grassland	**Lowland calcareous grassland priority habitat**	Aim to meet priority habitat definition for lowland calcareous grassland also see PHI Guidance and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 6A 'Grassland Med High & V. High'
Calcareous Grassland	**Upland calcareous grassland priority habitat**	Aim to meet priority habitat definition for upland calcareous grassland also see PHI Guidance and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 6A 'Grassland Med High & V. High'
Neutral Grassland	**Lowland meadows priority habitat**	Aim to meet priority habitat definition for lowland meadows also see PHI Guidance and 'good condition' as outlined in the BNG condition Assessments sheets Tab 6A 'Grassland Med High & V. High'
Neutral Grassland	**Upland hay meadows priority habitat**	Aim to meet priority habitat definition for upland hay meadows also see PHI Guidance and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 6A 'Grassland Med High & V. High'
Neutral Grassland	**Wildlife-rich neutral grassland**	Aim to meet 'good condition' for 'other neutral grassland' as outlined in the BNG Condition Assessments sheets Tab 6A 'Grassland Med High & V. High'.
Modified grassland	**Coastal and floodplain grazing marsh priority habitat**	Aim to improve natural function wherever possible as part of future restoration within the floodplain. A definition for Floodplain wetland mosaic habitat is proposed to replace the definition for Coastal and floodplain grazing marsh. A brief definition of floodplain wetland mosaic habitat can be found in UK Habitat Classification. The locations of modified floodplain areas providing highly important refuges for wetland wildlife of high biodiversity value within the existing inventory form part of this new habitat definition. Aim to meet

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
		'good condition' as outlined in the BNG Condition Assessments sheets Tab 23A 'Wetland'
Mixed	**Wildlife-rich floodplain wetland mosaic**	A short definition for floodplain wetland mosaic habitat can be found in UK Habitat Classification. Aim to meet the 6 general criteria and the different criteria for any habitats anticipated to form mosaics as outlined in 'Floodplain wetland mosaic and CFGM' in the BNG Condition Assessments sheets Tab 23A 'Wetland'. The ditches condition assessment should only be used where they are a key component of the modified floodplain areas providing highly important refuges for wetland wildlife.
Fen and Bog	**Wildlife-rich peatland habitat - type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich peatland habitat is unknown, but there is confidence that one of the wildlife-rich peatland habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich peatlands listed below. (Fen, Marsh, Swamp, Bog)
Fen	**Wildlife-rich fen habitat – type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich fen habitat is unknown, but there is confidence that it would meet the desired outcome for lowland fen, upland flushes fens and swamps, reedbeds or purple moor-grass rush pasture priority habitat.
Fen	**Purple moor-grass and rush pasture priority habitat**	Aim to meet priority habitat definition for purple moor-grass and rush pastures also see PHI Guidance and 'good condition' in the BNG Condition Assessments sheets Tab 23A 'Wetland'
Fen	**Lowland fen priority habitat**	Aim to meet priority habitat definition for lowland fens and 'good condition' in the BNG Condition Assessments sheets Tab 23A 'Wetland'
Fen	**Reedbed priority habitat**	Aim to meet priority habitat definition for reedbeds and 'good condition' in the BNG Condition Assessments sheets Tab 23A 'Wetland'
Fen	**Upland flushes, fens and swamps priority habitat**	Aim to meet priority habitat definition for upland flushes, fens and swamps and 'good condition' in the BNG Condition Assessments sheets Tab 23 A 'Wetland'
Bogs	**Wildlife-rich bog habitat – type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible.

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
		This allowable value should only be selected where the specific type of wildlife-rich bog habitat is unknown, but there is confidence that it would meet the desired outcome for lowland raised bog in the uplands or lowlands or blanket bog priority habitat.
Bogs	**Blanket bog priority habitat**	Aim to meet priority habitat definition for blanket bog and 'good condition' in the BNG Condition Assessments sheets Tab 23A 'Wetland'
Bogs	**Lowland raised bog priority habitat**	Aim to meet priority habitat definition for lowland raised bog and 'good condition' in the BNG Condition Assessments sheets Tab 23A 'Wetland'
Montane Habitats	**Mountain heaths and willow scrub priority habitat**	Aim to meet priority habitat definition for Mountain heaths and willow scrub and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 7A 'Heathlands'
Dwarf Shrub Heath	**Lowland heathland priority habitat**	Aim to meet priority habitat definition for lowland heathland and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 7A 'Heathland'
Dwarf Shrub Heath	**Upland heathland priority habitat**	Aim to meet priority habitat definition for upland heathland and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 7A 'Heathland'
Inland rock	**Calaminarian grasslands priority habitat**	Aim to meet priority habitat definition for calaminarian grasslands and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 6A 'Grassland Med High & V High'
Inland rock	**Inland rock outcrop and scree habitats priority habitat**	Aim to meet priority habitat definition for inland rock outcrop and scree habitats and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 21A 'Sparsely vegetated land'
Inland rock	**Limestone pavements priority habitat**	Aim to meet priority habitat definition for limestone pavements and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 15A 'Limestone pavement'
Inland rock	**Open mosaic habitats on previously developed**	Aim to meet priority habitat definition for open mosaic habitats on previously developed land

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
	land priority habitat	
Inland rock	**Wildlife-rich Inland rock and scree**	Aim to meet 'good condition' for 'other inland rock and scree' as outlined in the BNG Condition Assessments sheets Tab 21A 'Sparsely vegetated land'
Standing open waters	**Wildlife-rich lake habitat (greater than 2ha) – type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich lake habitat is unknown, but there is confidence that one of the wildlife-rich lake habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich lakes listed below.
Standing open waters	**Aquifer-fed naturally fluctuating water bodies priority habitat**	Aim for naturally functioning habitat as described in B6 and the Lake naturalness assessment – guidance document. Note that entirely pristine habitat is not required for this target, class 2 in the above assessments will be acceptable. For attributes such as water quality included in Water Environment Regulations this equates to good. Actions to reach Good Ecological Status will have a considerable role in restoring these habitats but additional actions may also be required.
Standing open waters	**Eutrophic standing waters priority habitat**	Aim for naturally functioning habitat as described in B6 and the Lake naturalness assessment – guidance document. Note that entirely pristine habitat is not required for this target, class 2 in the above assessments will be acceptable. For attributes such as water quality included in Water Environment Regulations this equates to good. Actions to reach Good Ecological Status will have a considerable role in restoring these habitats but additional actions may also be required.
Standing open waters	**Mesotrophic lakes priority habitat**	Aim for naturally functioning habitat as described in B6 and the Lake naturalness assessment – guidance document. Note that entirely pristine habitat is not required for this target, class 2 in the above assessments will be acceptable. For attributes such as water quality included in Water Environment Regulations this equates to good. Actions to reach Good Ecological Status will have a considerable role in restoring these habitats but additional actions may also be required.
Standing open waters	**Oligotrophic and dystrophic lakes priority habitat**	Aim for naturally functioning habitat as described in B6 and the Lake naturalness assessment – guidance document. Note that entirely pristine habitat is not required for this target, class 2 in the above assessments will be acceptable. For attributes such as water quality included in Water Environment Regulations this equates to good. Actions to reach Good Ecological Status will have a considerable role in restoring these habitats but additional actions may also be required.
Standing open waters	**Pond priority habitat less than 2 ha**	Aim to meet priority habitat definition for ponds and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 18A 'Pond'

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
Rivers and Streams	**Rivers and Stream priority habitat**	Aim for naturally functioning habitat as described in B6 and the River-naturalness-assessment-guidance-document. Note that entirely pristine habitat is not required for this target, class 2 in the above assessments will be acceptable. For attributes such as water quality included in Water Environment Regulations this equates to good. Actions to reach Good Ecological Status will have a considerable role in restoring these habitats but additional actions may also be required.
Broadleaved, Mixed, and Yew Woodland	**Wildlife-rich native woodland: broadleaved**	Aim for 'good condition' in the BNG Condition Assessments sheets Tab 24A 'Woodland' or more than 35 points within the woodland Condition survey forms. The Woodland Wildlife Toolkit states that Native woodland is defined as woodland that is composed of at least 80% native tree species. Up to 20% of this can comprise "naturalised species" if they are already present in the wood. This will still meet the favourable condition threshold for 'nativeness'. On ancient woodland sites which have been converted to plantations dominated by non-native species (known as "plantations on ancient woodland sites" or PAWS), the preferred long-term outcome is gradual restoration, eventually resulting in a stand with over 80% of the canopy containing native species. All new woodlands should follow the FC woodland establishment guidance, delivery of the woodland habitats may best be achieved through natural woodland colonisation
Broadleaved, Mixed, and Yew Woodland	**Lowland beech and yew woodland priority habitat**	Aim to meet priority habitat definition for lowland beech and yew woodland and 'good condition' in the BNG Condition Assessments sheets Tab 24A 'Woodland' All new woodlands should follow the FC woodland establishment guidance, delivery of the woodland habitats may best be achieved through natural woodland colonisation
Broadleaved, Mixed, and Yew Woodland	**Lowland mixed deciduous woodland priority habitat**	Aim to meet priority habitat definition for lowland mixed deciduous woodland and 'good condition' in the BNG Condition Assessments sheets Tab 24A 'Woodland' All new woodlands should follow the FC woodland establishment guidance, delivery of the woodland habitats may best be achieved through natural woodland colonisation
Broadleaved, Mixed, and Yew Woodland	**Upland mixed ashwoods priority habitat**	Aim to meet priority habitat definition for upland mixed ashwoods and 'good condition' in the BNG Condition Assessments sheets Tab 24A 'Woodland' All new woodlands should follow the FC woodland establishment guidance, delivery of the woodland habitats may best be achieved through natural woodland colonisation
Broadleaved, Mixed, and Yew Woodland	**Upland oakwood priority habitat**	Aim to meet priority habitat definition for upland oakwood and 'good condition' in the BNG Condition Assessments sheets Tab 24A 'Woodland' All new woodlands should follow the FC woodland establishment guidance, delivery of the woodland habitats may best be achieved through natural woodland colonisation

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
Broadleaved, Mixed, and Yew Woodland	**Wet woodland priority habitat**	Aim to meet priority habitat definition for wet woodland and 'good condition' in the BNG Condition Assessments sheets Tab 24A 'Woodland' All new woodlands should follow the FC woodland establishment guidance, delivery of the woodland habitats may best be achieved through natural woodland colonisation
Broadleaved, Mixed, and Yew Woodland	**Wildlife-rich mixed woodland**	Mixed woodland: mainly native broadleaved (with a minimum requirement of 70% native broadleaved species). Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 24 A 'Woodland', except for criteria E cover of native tree and shrub species which may be 70% All new woodlands should follow the FC woodland establishment guidance, delivery of the woodland habitats may best be achieved through natural woodland colonisation
Broadleaved, Mixed, and Yew Woodland	**Wood-pasture and parkland priority habitat**	Aim to meet priority habitat definition for Wood-pasture and parkland. The long term aim, for creating or restoring, would be to meet BNG 'good condition' in the BNG Condition Assessments sheets Tab 25A 'Wood-pasture and parkland' but as an interim, for the creation of new habitat within the first 30years (or restoration of an historic site where the veteran trees are no longer present), we suggest an aim to meet 'moderate' condition for BNG 4.0 aiming to pass at least criteria C, D, E, G and H.
Broadleaved, Mixed, and Yew Woodland	**Traditional orchards priority habitat**	Aim to meet priority habitat definition for Traditional orchards and 'good condition' in the BNG Condition Assessments sheets Tab 17A 'Orchard'
Scrub	**Wildlife-rich scrub - type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich scrub habitat is unknown, but there is confidence that one of the wildlife-rich scrub habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich scrub listed below.
Scrub	**Wildlife-rich blackthorn scrub**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 20A 'Scrub'
Scrub	**Wildlife-rich bramble scrub**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 20A 'Scrub'
Scrub	**Wildlife-rich gorse scrub**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 20A 'Scrub'
Scrub	**Wildlife-rich hawthorn scrub**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 20A 'Scrub'
Scrub	**Wildlife-rich hazel scrub**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 20A 'Scrub'

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
Scrub	**Wildlife-rich mixed scrub**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 20A 'Scrub'
Boundary and Linear Features	**Hedgerow priority habitat**	Aim to meet priority habitat definition for Hedgerows with the aim of meeting favourable condition as outlined in Annex 9 of the Hedgerow survey handbook.
Boundary and Linear Features	**Native Species-Rich Hedgerow with trees**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 8A 'Hedgerow'.
Boundary and Linear Features	**Native Species-Rich Hedgerow - Associated with bank or ditch**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 8A 'Hedgerow'.
Boundary and Linear Features	**Native Hedgerow with trees - Associated with bank or ditch**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 8A 'Hedgerow'.
Boundary and Linear Features	**Native Hedgerow - Associated with bank or ditch**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 8A 'Hedgerow'.
Boundary and Linear Features	**Native Hedgerow with trees**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 8A 'Hedgerow'.
Boundary and Linear Features	**Native Species-Rich Hedgerow**	Aim to meet 'good condition' in the BNG Condition Assessments sheets Tab 8A 'Hedgerow'.
Boundary and Linear Features	**Line of Trees (Ecologically Valuable)**	Aim to meet 'good condition' as outlined the BNG Condition Assessments sheets Tab 16A 'Line of Trees'.
Boundary and Linear Features	**Line of Trees (Ecologically Valuable) - with Bank or Ditch**	Aim to meet 'good condition' as outlined the BNG Condition Assessments sheets Tab 16A 'Line of Trees'.
Littoral Sediment	**Wildlife-rich littoral**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible.

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
	sediments - type unknown	This allowable value should only be selected where the specific type of wildlife-rich littoral sediment habitat is unknown, but there is confidence that one of the wildlife-rich littoral sediment habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich littoral sediment listed below.
Littoral Sediment	**Coastal saltmarsh priority habitat**	Aim to meet priority habitat definition for coastal saltmarsh and biotopes therein
Littoral Sediment	**Intertidal mudflats priority habitat**	Aim to meet priority habitat definition for intertidal mudflats and biotopes therein
Littoral Sediment	**Peat and clay exposures with Piddocks priority habitat**	Aim to meet priority habitat definition for peat and clay exposures and biotopes therein
Littoral Sediment	**Seagrass bed priority habitat**	Aim to meet priority habitat definition for seagrass beds and biotopes therein
Littoral Sediment	**Sheltered muddy gravel priority habitat**	Aim to meet priority habitat definition for sheltered muddy gravels and biotopes therein
Littoral Sediment	**Wildlife-rich coastal Saltmarsh and saline reedbeds**	Aim to meet MHC definition for coastal Saltmarsh and saline reedbeds and 'good condition' as outlined in BNG Metric Tab 3A 'Coastal Saltmarsh'
Littoral Sediment	**Wildlife-rich littoral muddy sand**	Aim to meet agreed habitat definition in EUNIS -Factsheet for Littoral sand and muddy sand (europa.eu)
Littoral Sediment	**Wildlife-rich Littoral coarse sediment**	Aim to meet MHC definition for littoral coarse sediment and 'good condition' as outlined in the BNG Condition Assessments sheets Tab 13A 'Intertidal sediment'
Littoral Sediment	**Wildlife-rich Littoral sand**	Aim to meet MHC definition for littoral sand and 'good condition' as outlined in BNG Condition Assessments sheets Tab 13A 'Intertidal sediment'
Littoral Sediment	**Wildlife-rich Littoral mixed sediments**	Aim to meet MHC definition for Littoral mixed sediment and biotopes therein and 'good condition' as outlined in BNG Condition Assessments sheets Tab 13A 'Intertidal sediment'

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
Littoral Sediment	**Wildlife-rich Features of littoral sediment**	Aim to meet agreed habitat definition in EUNIS - Factsheet for Features of littoral sediment (europa.eu)
Littoral rock	**Wildlife-rich littoral rock - type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich littoral rock habitat is unknown, but there is confidence that one of the wildlife-rich littoral rock habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich littoral rock listed below.
Littoral rock	**Intertidal boulder communities priority habitat**	Aim to meet priority habitat definition for intertidal boulder communities and biotopes therein
Littoral rock	**Intertidal chalk priority habitat**	Aim to meet priority habitat definition for intertidal chalk and biotopes therein
Littoral rock	***Sabellaria alveolata* reefs priority habitat**	Aim to meet priority habitat definition for *Sabellaria alveolata* reefs and biotopes therein
Littoral rock	**Wildlife-rich High energy littoral rock**	Aim to meet MHC definition for high energy littoral rock and 'good condition' as outlined in BNG Condition Assessments sheets Tab 19A 'Rocky Shore'
Littoral rock	**Wildlife-rich Moderate energy littoral rock**	Aim to meet MHC definition for moderate energy littoral rock and 'good condition' as outlined in BNG Condition Assessments sheets Tab 19A 'Rocky Shore'
Littoral rock	**Wildlife-rich low energy littoral rock**	Aim to meet MHC definition for low energy littoral rock and 'good condition' as outlined in BNG Condition Assessments sheets Tab 19A 'Rocky Shore'
Littoral rock	**Wildlife-rich features of littoral rock**	Aim to meet agreed habitat definition in EUNIS - Factsheet for Features of littoral rock (europa.eu)
Supralittoral rock	**Maritime cliff and slopes priority habitat**	Aim to meet priority habitat definition for maritime cliff and slopes and 'good condition' as outlined in BNG Condition Assessments sheets Tab 1A 'Coastal'
Sublittoral rock	**Wildlife-rich sublittoral**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible.

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
	rock - type unknown	This allowable value should only be selected where the specific type of wildlife-rich sublittoral rock habitat is unknown, but there is confidence that one of the wildlife-rich sublittoral rock habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich sublittoral rock listed below.
Sublittoral rock	**Estuarine rocky habitats priority habitat**	Aim to meet priority habitat definition for estuarine rocky habitats and biotopes therein
Sublittoral rock	**Fragile sponge and anthozoan communities on subtidal rocky habitats priority habitat**	Aim to meet priority habitat definition for fragile sponge and anthozoan communities on subtidal rocky habitats and biotopes therein
Sublittoral rock	***Sabellaria spinulosa* reef priority habitat**	Aim to meet priority habitat definition for *Sabellaria spinulosa* reefs and biotopes therein, definition of 'reefiness' in Defining and managing Sabellaria spinulosa reefs esp. Table 2 & 4
Sublittoral rock	**Subtidal chalk priority habitat**	Aim to meet priority habitat definition for subtidal chalk and biotopes therein
Sublittoral rock	**Tide-swept channels priority habitat**	Aim to meet priority habitat definition for tide-swept channels and biotopes therein
Sublittoral rock	**Wildlife-rich Infralittoral rock**	Aim to meet MHC definition for infralittoral rock
Sublittoral rock	**Wildlife-rich circalittoral rock**	Aim to meet MHC definition for circalittoral rock
Sublittoral rock	**Wildlife-rich subtidal stony reef**	Aim to meet the priority habitat definition for subtidal stony reef
Supralittoral sediment	**Wildlife-rich supralittoral sediment – type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich supralittoral sediment habitat is unknown, but there is confidence that one of the wildlife-rich supralittoral sediment habitats will be achieved.

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
		The desired outcome should be the relevant desired outcome(s) for the wildlife-rich supralittoral sediment listed below.
Supralittoral sediment	**Coastal sand dunes priority habitat**	Aim to meet the priority habitat definition for coastal sand dunes and 'good condition' as outlined in BNG Condition Assessments sheets Tab 1A 'Coastal'
Supralittoral sediment	**Coastal vegetated shingle priority habitat**	Aim to meet the priority habitat definition for coastal vegetated shingle and 'good condition' as outlined in BNG Condition Assessments sheets Tab 1A 'Coastal'
Sublittoral sediment	**Wildlife-rich sublittoral sediment, type unknown**	The most precise descriptor name of the type of wildlife-rich habitat should be given where possible. This allowable value should only be selected where the specific type of wildlife-rich sublittoral sediment habitat is unknown, but there is confidence that one of the wildlife-rich sublittoral sediment habitats will be achieved. The desired outcome should be the relevant desired outcome(s) for the wildlife-rich sublittoral sediment listed below.
Sublittoral sediment	**Saline lagoon priority habitat**	Aim to meet the priority habitat definition for saline lagoons and biotopes therein
Sublittoral sediment	**Blue mussel beds on sediment priority habitat**	Aim to meet the priority habitat definition for blue mussel beds and biotopes therein
Sublittoral sediment	**Horse mussel bed priority habitat**	Aim to meet the priority habitat definition for horse mussel beds and biotopes therein
Sublittoral sediment	**Maërl bed priority habitat**	Aim to meet the priority habitat definition for maërl beds and biotopes therein
Sublittoral sediment	**Mud habitats in deep water priority habitat**	Aim to meet the priority habitat definition for mud habitats in deep water and biotypes therein
Sublittoral sediment	**Subtidal sands and gravel priority habitat**	Aim to meet the priority habitat definition for subtidal sands and gravels and biotypes therein
Sublittoral sediment	**Wildlife-rich native oyster**	Aim to meet the habitat definition for native oyster (Ostrea edulis) beds

General habitat type	Allowable value for type of wildlife-rich habitat	Desired Outcome
	(*Ostrea edulis*) beds[1]	
Sublittoral sediment	**Wildlife-rich subtidal coarse sediment**	Aim to meet MHC definition for subtidal coarse sediment
Sublittoral sediment	**Wildlife-rich subtidal mixed sediments**	Aim to meet MHC definition for subtidal mixed sediments
Sublittoral sediment	**Wildlife-rich subtidal mud**	Aim to meet MHC definition for subtidal mud
Sublittoral sediment	**Wildlife-rich subtidal sand**	Aim to meet MHC definition for subtidal sand
Sublittoral sediment	**Wildlife-rich subtidal seagrass beds**	Aim to meet MHC definition for subtidal seagrass beds

Annex B – Suggested values for ‘Funding mechanism used’

- Countryside Stewardship
- Sustainable Farming Incentive
- Landscape Recovery
- Farming in Protected Landscapes
- Nature for Climate
- Species Recovery Grant Programme
- Species Survival Fund
- Heritage Lottery Nature Projects
- Big Nature Impact Fund
- Biodiversity Net Gain
- Nature Returns Programme
- Water Restoration Fund
- Water Environment Improvement Fund
- Projects for Nature
- Nature Markets
- Private finance (provide detail)

Annex C – Allowable values for ‘Baseline habitat type’

- Arable
- Horticulture
- Grassland – not currently wildlife-rich habitat
- Woodland – not currently wildlife-rich habitat
- Agroforestry
- Non-native coniferous woodland
- Mixed woodland less than 70% native broadleaved
- Non-native broadleaved woodland
- Scrub – not wildlife-rich habitat
- Bracken
- Rivers – not currently wildlife-rich habitat
- Lakes – not currently wildlife-rich habitat
- Ponds – not currently wildlife-rich habitat
- Degraded Peatlands – not currently supporting semi-natural wetland vegetation
- Previously developed land
- Degraded supralittoral rock – not currently a wildlife-rich habitat
- Degraded littoral rock habitats – not currently wildlife-rich habitat
- Degraded littoral sediment habitats – not currently wildlife-rich habitat
- Degraded sublittoral rock habitats – not currently wildlife-rich habitat
- Degraded sublittoral sediment habitats – not currently wildlife-rich habitat
- Degraded supralittoral sediments habitats – not currently wildlife-rich habitat
- Other non-wildlife-rich habitat
- Fragments of an existing wildlife-rich habitat[1]
- Information not available

Footnote 1: This includes areas where wildlife-rich habitats have been so degraded that only fragments remain so the site can no longer be easily recognised as that habitat type e.g. fragments of heath in a grassland or traditional orchards where the majority of trees have been lost.

About Natural England

Natural England is here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

Further Information

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