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Biodiversity Metric 3.1

Auditing and accounting for biodiversity

TECHNICAL SUPPLEMENT

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Biodiversity metric 3.1 forms an update to version 3.0 and is the culmination of more than 14-years' work to develop a practical metric to measure gains and losses of biodiversity in England. It builds on the model first proposed in the scoping study commissioned by Defra in 2008 (Treweek et al., 2009)[1], which was further developed to incorporate scores for habitat distinctiveness and condition (Treweek et al., 2010)[2] and used by Defra for their biodiversity offset pilots (Defra, 2012)[3] . It has been shaped by the knowledge and experience gained across a variety of different sectors since the offset pilots and the launch, in 2019, of a beta test version, biodiversity metric 2.0 (Crosher et al., 2019)[4].

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[1] TREWEEK J. ET AL. (2009) *Scoping study for the design and use of biodiversity offsets in an English Context* [online]. Defra, London. Available from: https://www.cbd.int/financial/offsets/unitedkingdom-scoping.pdf

[2] TREWEEK J., BUTCHER B. AND TEMPLE H. (2010) *Biodiversity offsets: possible methods for measuring biodiversity losses and gains for use in the UK.* CIEEM In Practice [online]. 69, 29-32. Available from: Researchgate

[3] DEFRA. (2012) Biodiversity offsetting pilots. *Technical paper: the metric for the biodiversity offsetting pilot in England.* Defra. March 2012. https://www.gov.uk/government/collections/biodiversity-offsetting

[4] CROSHER I. ET AL. (2019) *The Biodiversity Metric 2.0* [online]. Available from: The Biodiversity Metric 2.0 - JP029 (naturalengland.org.uk)

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Image credits

Page 4: Natural England (Paul Glendell)

Contents

Introduction

0.1 This technical supplement to biodiversity metric 3.1 provides technical resources to support data collection, condition assessment and further detail about the metric.

0.2 We recognise that not all users of biodiversity metric 3.1 will want or need this level of technical detail for everyday use. But for those that need to apply the metric in detail the technical supplement will be a key resource.

0.3 Part 1 provides details and reference sheets for assessing Habitat Condition, Part 2 sets out the rationale for the values in the component parts of the metric and Part 3 provides the detailed data tables used in the calculation tool.

Part 1a – Assessing habitat condition for biodiversity metric 3.1: Area habitats

Scope

1.1 This chapter explains how to assess the condition of area habitats for use within biodiversity metric 3.1. Methodologies for assessing condition of linear habitats (Hedgerows and lines of trees, and habitats within the Rivers and streams module) are provided in Part 1b and 1c respectively.

1.2 Biodiversity metric 3.1 uses habitat condition as one of the measures of habitat quality. The condition component of quality measures the biological working order of a habitat type, judged against the perceived ecological optimum state for that particular habitat. It is, therefore, a means of measuring variation in quality of patches of the same habitat type (i.e. an 'intra-habitat' measure) rather than a measure of quality between habitat types (i.e. an 'inter-habitat' measure) which is assessed in the metric through habitat distinctiveness. The process of assessing habitat condition considers key physical characteristics and a habitat's ability to support typical flora and fauna.

1.3 This method of assessing habitat condition can be used to:

a) Assess the condition of pre-intervention or baseline habitats to inform baseline biodiversity unit calculations.

b) Assess the condition of post-intervention habitats as part of ongoing monitoring requirements.

c) Inform habitat creation and enhancement interventions by defining what each condition state would look like for the habitat in question. Condition criteria themselves and the results of baseline condition assessments can be used to:

   i. identify specific interventions required to ensure newly created habitat achieves its target condition;

   ii. inform management and maintenance requirements to ensure retained habitat maintains its condition for the duration of the BNG requirement if no enhancement measures are proposed; or

   iii. inform design, management and maintenance plans for the restoration or enhancement of habitats through an improvement in condition.

1.4 Note that although the condition criteria may be used to monitor the effectiveness of habitat creation / management through the biodiversity metric 3.1, they have not been developed as management guidance. Any habitat creation and management plans should make use of the wide array of guidance developed by government, conservation NGO's, industry, and professional bodies. This is also applicable to the condition criteria for Hedgerows and Lines of Trees and Rivers and Streams, as detailed in parts 1b and 1c of this document (respectively).

Method

1.5 The method for assessing habitat condition is split into three main steps, all of which are outlined in detail below:

⇒ STEP 1: Considerations before assessing condition

⇒ STEP 2: Choosing the right condition sheet

⇒ STEP 3: Using condition sheets

Who?

1.6 A competent person must carry out the habitat survey and condition assessment. They should be able to confidently identify the positive and negative indicator species for the range of habitats likely to occur in a given geographic location at the time of year the survey is undertaken.

When?

1.7 Habitat surveys can be undertaken year-round, though it is important to note that the optimal survey season is April to September inclusive for most habitat types. Surveys outside of the optimal survey period should use a precautionary approach to assessing condition criteria which are not measurable at the time of year the survey is undertaken (see Step 3 for details).

Step 1: Considerations before assessing condition

1.8 The following points must be considered **before** undertaking a condition assessment survey:

a) Surveyors must have access to condition sheets (Annex 1) and sufficient copies of the condition assessment proforma (Annex 2) during the survey. These may be either digital or hard copies.

b) The habitat type of the parcel(s) to be assessed must be determined before consideration can be given to its condition since this is a pre-requisite to selecting the correct condition sheet. (See Table TS2-1 for a list of habitats included in biodiversity metric 3.1 and the classification system from which their definition is derived.) If habitat type cannot be accurately recorded, for example due to recent felling or intentional severe degradation, a condition assessment should not be undertaken. In this scenario, a habitat condition score of Good should be allocated to the habitat parcel as a precaution.

c) The location and extent of the habitat parcel(s) to be assessed should be mapped (either on digital or paper maps). The extent of a habitat parcel may subsequently change if condition is found to vary within the parcel during the condition assessment.

Step 2: Choosing the right condition sheet

1.9 Table TS1-1 lists the habitat condition sheets that are available and indicates which sheet should be used for each habitat type. Some condition sheets are unique to a single habitat type, others cover a range of habitat types within the same broad habitat category.

How to use:

1.10 Locate the relevant biodiversity metric 3.1 habitat type in column 1 of Table TS1-1, then refer to column 2 to determine which condition sheet should be used to assess that particular habitat type. Please note the following important points:

- Habitat types in Table TS1-1 correspond with those found in biodiversity metric 3.1 (see Table TS2-1).
- Certain habitats are allocated a fixed condition score and do not need their condition to be assessed. These are typically Low or Very Low distinctiveness habitats and are marked 'Condition Assessment N/A' or 'N/A – Other'.
- Habitats in **bold** are Priority Habitats.
- Table TS1-1 covers all area habitat types found in biodiversity metric 3.1. Linear habitats (Hedgerows and lines of trees, and Rivers and streams) are described in Chapter 8 of the User Guide and Parts 1b and 1c of this document.

TABLE TS1-1: Choosing the right condition sheet

(See paragraphs 1.8-1.9 for advice on using this table)

Habitat Type	Condition Sheet
Broad habitat type: Coastal lagoons	
Coastal lagoons - Coastal lagoons	Coastal Lagoons
Broad habitat type: Coastal saltmarsh	
Coastal saltmarsh - Coastal saltmarshes and saline reed beds	Coastal Saltmarsh
Coastal saltmarsh - Artificial coastal saltmarshes and saline reed beds	Coastal Saltmarsh
Broad habitat type: Cropland	
Cropland - Arable field margins cultivated annually	Condition Assessment N/A
Cropland - Arable field margins game bird mix	
Cropland - Arable field margins pollen & nectar	
Cropland - Arable field margins tussocky	
Cropland - Cereal crops	
Cropland - Cereal crops winter stubble	
Cropland - Horticulture	
Cropland - Intensive orchards	
Cropland - Non-cereal crops	
Cropland - Temporary grass and clover leys	
Broad habitat type: Grassland	
Grassland - Bracken	Condition Assessment N/A
Grassland - Floodplain wetland mosaic (Coastal and floodplain grazing marsh)	Use Wetland condition sheet (plus Ditch condition sheet for any ditches), unless associated with a priority species rich grassland sward, reedbed or fen, in which case record and

Habitat Type	Condition Sheet
	assess as the relevant habitat type within the metric.
Grassland - Lowland calcareous grassland	Grassland Medium/High/Very High distinctiveness
Grassland - Lowland dry acid grassland	Grassland Medium/High/Very High distinctiveness
Grassland - Lowland meadows	Grassland Medium/High/Very High distinctiveness
Grassland - Modified grassland	Grassland Low distinctiveness
Grassland - Other lowland acid grassland	Grassland Medium/High/Very High distinctiveness
Grassland - Other neutral grassland	Grassland Medium/High/Very High distinctiveness
Grassland - Tall herb communities (H6430)	Grassland Medium/High/Very High distinctiveness
Grassland - Traditional orchards	Orchard
Grassland - Upland acid grassland	Grassland Medium/High/Very High distinctiveness
Grassland - Upland calcareous grassland	Grassland Medium/High/Very High distinctiveness
Grassland - Upland hay meadows	Grassland Medium/High/Very High distinctiveness
Broad habitat type: Heathland and scrub	
Heathland and shrub - Blackthorn scrub	Scrub
Heathland and shrub - Bramble scrub	Condition Assessment N/A
Heathland and shrub - Gorse scrub	Scrub
Heathland and shrub - Hawthorn scrub	Scrub
Heathland and shrub - Hazel scrub	Scrub
Heathland and shrub - Lowland heathland	Heathland
Heathland and shrub - Mixed scrub	Scrub
Heathland and shrub - Mountain heaths and willow scrub	Use Heathland condition sheet for Mountain heaths OR Scrub condition sheet for Willow scrub
Heathland and shrub - Rhododendron scrub	Condition Assessment N/A
Heathland and shrub - Sea buckthorn scrub (Annex 1)	Scrub
Heathland and shrub - Sea buckthorn scrub (other)	Condition Assessment N/A
Heathland and shrub - Upland heathland	Heathland
Broad habitat type: Hedgerows and lines of trees	
Hedgerows and lines of trees - Line of trees	Line of trees
Hedgerows and lines of trees - Line of trees - associated with bank or ditch	Line of trees

Habitat Type	Condition Sheet
Hedgerows and lines of trees - Line of trees (ecologically valuable)	Line of trees
Hedgerows and lines of trees - Line of trees (ecologically valuable) - associated with bank or ditch	Line of trees
Hedgerows and lines of trees - Hedge ornamental non-native	Condition Assessment N/A
Hedgerows and lines of trees - Native hedgerow	Hedgerow
Hedgerows and lines of trees - Native hedgerow - associated with bank or ditch	Hedgerow
Hedgerows and lines of trees - Native hedgerow with trees	Hedgerow
Hedgerows and lines of trees - Native hedgerow with trees - associated with bank or ditch	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow - associated with bank or ditch	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow with trees	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow with trees - associated with bank or ditch	Hedgerow
Broad habitat type: Intertidal hard structures	
Intertidal hard structures - Intertidal artificial hard structures	Intertidal hard structures
Intertidal hard structures - Intertidal artificial features of hard structures	Intertidal hard structures
Intertidal hard structures - Intertidal artificial hard structures with integrated greening of grey infrastructure (IGGI)	Intertidal hard structures
Broad habitat type: Intertidal Sediments	
Intertidal Sediment - Littoral coarse sediment	Intertidal sediment
Intertidal Sediment - Littoral sand	Intertidal sediment
Intertidal Sediment - Littoral muddy sand	Intertidal sediment
Intertidal Sediment - Littoral mud	Intertidal sediment
Intertidal Sediment - Littoral mixed sediments	Intertidal sediment
Intertidal Sediment - Features of littoral sediment	Intertidal sediment
Intertidal Sediment - Artificial littoral coarse sediment	Intertidal sediment

Habitat Type	Condition Sheet
Intertidal Sediment - Artificial littoral mixed sediments	Intertidal sediment
Intertidal Sediment - Artificial littoral mud	Intertidal sediment
Intertidal Sediment - Artificial littoral muddy sand	Intertidal sediment
Intertidal Sediment - Artificial littoral sand	Intertidal sediment
Intertidal sediment - Littoral seagrass	Intertidal seagrass
Intertidal sediment - Littoral seagrass - on peat, clay or chalk	Intertidal seagrass
Intertidal sediment - Artificial littoral seagrass	Intertidal seagrass
Intertidal Sediment - Littoral biogenic reefs - Mussels	Intertidal biogenic reefs
Intertidal Sediment - Littoral biogenic reefs - Sabellaria	Intertidal biogenic reefs
Intertidal Sediment - Artificial littoral biogenic reefs	Intertidal biogenic reefs
Broad habitat type: Lakes	
Lakes - Aquifer fed naturally fluctuating water bodies	Lakes
Lakes - High alkalinity lakes	Lakes
Lakes - Low alkalinity lakes	Lakes
Lakes - Marl lakes	Lakes
Lakes - Moderate alkalinity lakes	Lakes
Lakes - Ornamental lake or pond	Lakes OR Ponds
Lakes - Peat lakes	Lakes
Lakes - Ponds (Priority Habitat)	Ponds
Lakes - Ponds (non-Priority Habitat)	Ponds
Lakes - Reservoirs	Lakes
Lakes - Temporary lakes, ponds and pools [C1.6]	Use Lake condition sheet for Temporary lakes OR Pond condition sheet for Temporary ponds and pools
Broad habitat type: Rivers and streams	
Rivers and streams - Ditches	Ditches
Broad habitat type: Rocky shore	
Rocky shore - High energy littoral rock	Rocky shore
Rocky shore - Moderate energy littoral rock	Rocky shore
Rocky shore - Low energy littoral rock	Rocky shore
Rocky shore - Features of littoral rock	Rocky shore
Rocky Shore - Features of littoral rock - on peat, clay or chalk	Rocky shore
Rocky shore - High energy littoral rock - on peat, clay or chalk	Rocky shore
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	Rocky shore

Habitat Type	Condition Sheet
Rocky shore - Low energy littoral rock - on peat, clay or chalk	Rocky shore
Broad habitat type: Sparsely vegetated land	
Sparsely vegetated land - Calaminarian grasslands	Grassland
Sparsely vegetated land - Coastal sand dunes	Coastal
Sparsely vegetated land - Coastal vegetated shingle	Coastal
Sparsely vegetated land - Ruderal/ephemeral	Urban
Sparsely vegetated land - Inland rock outcrop and scree habitats	Sparsely vegetated land
Sparsely vegetated land - Limestone pavement	Limestone pavement
Sparsely vegetated land - Maritime cliff and slopes	Coastal
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land
Broad habitat type: Urban	
Urban - Allotments	Urban
Urban - Artificial unvegetated, unsealed surface	N/A - Other
Urban - Bioswale	Urban
Urban - Biodiverse green roof	Urban
Urban - Built linear features	N/A - Other
Urban - Cemeteries and churchyards	Use Urban condition sheet as default. Where there are areas of grassland, woodland or scrub above the minimum mappable area, record and assess these as the relevant habitat type.
Urban - Developed land; sealed surface	N/A - Other
Urban - Façade-bound green wall	Urban
Urban - Ground based green wall	Urban
Urban - Ground level planters	Condition Assessment N/A
Urban - Intensive green roof	Urban
Urban - Introduced shrub	Condition Assessment N/A
Urban - Open mosaic habitats on previously developed land	Urban
Urban - Other green roof	Condition Assessment N/A
Urban - Rain garden	Urban
Urban - Actively worked sand pit, quarry or opencast mine	Condition Assessment N/A Note that this classification relates to non-vegetated working areas only.

Habitat Type	Condition Sheet
	Mineral extraction sites can support a wide range of habitats, including ponds, heathland, grassland, sparsely vegetated land, bare ground, flushes and springs etc. These should be assessed separately using the relevant condition sheet.
Urban - Urban trees	Urban trees
Urban - Sustainable urban drainage feature	Urban
Urban - Un-vegetated garden	N/A - Other
Urban - Vacant/derelict land/ bare ground	Urban
Urban - Vegetated garden	Condition Assessment N/A
Broad habitat type: Wetland	
Wetland - Blanket bog	Wetland
Wetland - Depressions on peat substrates (H7150)	Wetland
Wetland - Fens (upland & lowland)	Wetland
Wetland - Lowland raised bog	Wetland
Wetland – Oceanic valley mire [1] (D2.1)	Wetland
Wetland - Purple moor grass and rush pastures	Wetland
Wetland - Reedbeds	Wetland
Wetland - Transition mires and quaking bogs (H7140)	Wetland
Broad habitat type: Woodland	
Woodland and forest - Felled	No assessment required - condition fixed at Good Note that this classification should only be used when the original habitat type of the felled woodland cannot be determined. If the habitat type of the felled woodland is known (either through data records, imagery or field survey) then the area should be entered into the metric as the relevant woodland type. In the absence of evidence to the contrary, the baseline condition for that area must be fixed at Good.
Woodland and forest - Lowland beech and yew woodland	Woodland
Woodland and forest - Lowland mixed deciduous woodland	Woodland

Habitat Type	Condition Sheet
Woodland and forest - Native pine woodlands	Woodland
Woodland and forest - Other coniferous woodland	Woodland
Woodland and forest - Other Scot's pine woodland	Woodland
Woodland and forest - Other woodland; broadleaved	Woodland
Woodland and forest - Other woodland; mixed	Woodland
Woodland and forest - Upland birchwoods	Woodland
Woodland and forest - Upland mixed ashwoods	Woodland
Woodland and forest - Upland oakwood	Woodland
Woodland and forest - Wet woodland	Woodland
Woodland and forest - Wood-pasture and parkland	Wood-pasture and parkland

Step 3: Using condition sheets

1.11 Biodiversity metric 3.1 condition sheets for area habitats, hedgerows and lines of trees (Part 1b) and ditches, are provided in Annex 1. A draft condition assessment proforma is provided in Annex 2. Habitat specific proforma are also provided as a separate excel document.

Note: These do not include the condition assessment for Rivers and streams (including canals) which is described in Chapter 8 of the User Guide and Part 1c below.

1.12 The following instructions and points of clarification apply to most area habitat condition sheets. Additional habitat-specific instructions for Woodland and Lake condition sheets are provided separately below.

a) Complete one condition assessment proforma (either digital or hard copy) per habitat parcel. The proforma template provided in Annex 2 is a suggested format and can be adapted to suit the needs and preferences of the user, provided the same parameters are captured.

b) The number of criteria varies between condition sheets. When using a condition sheet with fewer than the maximum of 13 criteria, 'N/A' should be entered against the additional criteria numbers.

c) Some condition sheets employ 'essential' criteria. These are criteria which must be passed for the habitat parcel to achieve a particular condition. If applicable, such criteria must be highlighted when completing the condition assessment proforma.

d) Assess the habitat parcel against each condition assessment criterion for each indicator of condition, recording a result of 'pass' or 'fail' for each criterion assessed. Note: For woodland and intertidal habitats, assessing condition against each indicator will give a score of either 1, 2 or 3 (Poor, Moderate or Good respectively). These scores are then summed and compared to the overall score thresholds for the

habitat group and an overall assessment of condition is reached (see '**Using the Woodland and intertidal condition sheets'** below).

e) During a condition assessment it may become apparent that a single habitat parcel contains areas of differing condition. A change in condition should trigger a new condition assessment, with the original parcel being split accordingly to ensure that each individual parcel comprises an area of habitat having the same type and condition.

f) Habitat type should always be determined before starting a condition assessment (see Step 1 above), but if a habitat parcel is failing all criteria it is possible that the habitat type has been recorded incorrectly and the wrong condition sheet is being used. Surveyors should refer to the habitat description links at the top of each condition sheet to check whether this is the case. The habitat should be recorded as the best fit habitat listed in biodiversity metric 3.1.

g) Most condition sheets list species that are indicative of sub-optimal condition status (relevant to the habitat type(s) being assessed). These lists are not exhaustive. The assessment allows for expert judgement by the ecological surveyor to consider additional species within this category, such as those of specific geographical relevance. Any high-risk non-native invasive species should be reported to the GB non-native species secretariat.

h) Once all applicable condition criteria have been assessed, assign a result of Good, Moderate or Poor based on the scoring instructions provided within the condition sheets. An interim score of Fairly Poor or Fairly Good should only be used in special circumstances where a habitat does not fit the standard outcome of Good, Moderate or Poor. Justification for allocating an interim condition score must be provided within the condition assessment proforma and within the biodiversity metric 3.1 tool assessors comments.

i) Any relevant evidence for passing or failing against criteria, or for a particular score, should be captured within the habitat survey target notes or by taking photographs. Photographs and target notes should then be referenced on the condition assessment proforma.

j) Any survey limitations must be detailed on the proforma. These may include areas of limited access, or the survey being undertaken outside of the optimal survey season. If survey limitations prevent any criteria from being confidently and accurately assessed, then a precautionary approach is to be taken.

k) For habitats other than woodland or intertidal habitats; if a definitive pass or fail cannot be assigned through baseline survey, assume the criterion is passed. For monitoring of post-intervention habitat condition a precautionary approach would be to assume fail (or 'poor' in the case of woodland and intertidal habitats) for any criteria which cannot be assessed due to survey limitations.

l) The condition assessment survey is a good opportunity to identify any potential opportunities for habitat restoration or enhancement interventions. These should be noted on the condition assessment proforma.

Using the Woodland and Intertidal condition sheets

1.13 The Woodland condition sheet has been adapted from the 'Woodland Condition Survey' developed by the England Woodland Biodiversity Group (EWBG)[5]. However, all information needed to complete a Woodland condition assessment for the purpose of biodiversity metric 3.1 is provided within the Woodland condition sheet.

1.14 Point d) above does not apply to the Woodland and Intertidal condition sheets. Instead of allocating a pass or fail to each criterion, each of the indicators within these condition sheets are allocated a score of either 'Good' (3 points), 'Moderate' (2 points), or 'Poor' (1 point). Once all indicators have been scored, the points for each indicator are summed to give a total score. The total score is translated into a condition assessment result as per Points g) and h) above.

Using the Lake condition sheet

1.15 The Freshwater Biological Association's 'Habitat Naturalness Assessment' is used to assess the condition of lakes[6].

1.16 The average naturalness assessment scores for a lake are then converted into condition scores for use in biodiversity metric 3.1. Links to the key documents for undertaking a Habitat Naturalness Assessment, together with a conversion table for scores, are provided within the Lake condition sheet.

[5] The full, original EWBG method can be found at: ENGLAND WOODLAND BIODIVERSITY GROUP (EWBG) (No date). *Assessing your Woodland's Condition* [online]. Available from: Woodland Wildlife Toolkit (sylva.org.uk)

[6] Details of the methodology for assessing naturalness of lakes are available at: FRESHWATER BIOLOGICAL ASSOCIATION (FBA) AND NATURAL ENGLAND (No date) *Discovering Priority Habitats in England* [online]. Available from: Contribute data – Discovering Priority Habitats in England (wpengine.com)

Part 1b – Assessing Habitat Condition: Hedgerows and Lines of Trees

Types of hedgerow and lines of trees

1.6 The key and descriptions provided in the Defra (2007)[7] 'Hedgerow Survey Handbook' should be used to determine if a feature should be considered a hedgerow, hedgerow with trees, a line of trees or not a hedgerow at all. The specific type of hedgerow can then be identified using the detailed descriptions in Table TS1-2. Urban trees are considered separately to lines of trees in the wider environment, since they generally occur in an urban environment surrounded by developed land. For information on how Urban trees are considered in biodiversity metric 3.1 see Chapter 7 of the User Guide.

TABLE TS1-2: Hedgerow and line of trees habitat descriptions

Hedgerow type	Description
Hedge ornamental or non-native	Any hedgerow containing 20% or more canopy cover of a non-native species[8]. Ornamental hedgerows of native species, such as yew, box and privet, should be recorded in this habitat category on the assumption that they are garden varieties of the native form unless evidence can be shown to suggest otherwise.
Native hedgerow	80% or more cover of at least one woody UK native species. A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground, so that the woody linear feature as a whole appears as a 'shrubby' hedgerow, even though some of the woody species in it are capable of growing into trees. The shrubby component must be less than 5m wide at the base. This hedgerow type may have hedgerow trees along its length, but their canopies will be more than 20m apart[7].
Native hedgerow - with bank or ditch	80% or more cover of at least one woody UK native species. A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground, so that the woody linear feature as a whole appears as a 'shrubby' hedgerow, even though some of the woody species in it are capable of growing into trees. The shrubby component must be less than 5m wide at the base. This hedgerow type may have hedgerow trees along its length, but their canopies will be more than 20m apart. **Bank:** distinctive landscape features of Devon and Cornwall. Minimum vertical height of 0.5m[9] from the base of the bank; or

[7] See: DEFRA (2007) *Hedgerow Survey Handbook: A standard procedure for local surveys in the UK.* 2nd ed [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk)
[8] See: UKHAB LTD. (2022) *UK Habitat Classification* [online]. Available from: http://ukhab.org
[9] See: MENNEER, R. (2005) *Hedge (& wall) importance test. Instructions for working out separate hit marks for landscape, wildlife and history* [online]. Available from: hitindscores.pdf (cornishhedges.co.uk)

Hedgerow type	Description
	Ditch: linear excavated channel which may or may not hold water for part of the year. Ditches where the vegetation indicates that the channel holds water throughout the year should be recorded separately under the Rivers and streams metric.
Native hedgerow with trees	80% or more cover of at least one woody UK native species. A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground. The shrubby component must be less than 5m wide at the base. The hedgerow must be more than 30m of continuous vegetation and have a distinct Line of trees extending above it, the tree canopies being closer than 20m, so that the woody linear feature as a whole appears as a 'shrubby layer plus lollipops'.
Native hedgerow with trees - with bank or ditch	80% or more cover of at least one woody UK native species. A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground. The shrubby component must be less than 5m wide at the base. The hedgerow must be more than 30m of continuous vegetation and have a distinct Line of trees extending above it, the tree canopies being closer than 20m, so that the woody linear feature as a whole appears as a 'shrubby layer plus lollipops'. Bank or ditch: see 'Native hedgerow - with bank or ditch' for description.
Native species rich hedgerow	A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground, so that the woody linear feature as a whole appears as a 'shrubby' hedgerow, even though some of the woody species in it are capable of growing into trees. The shrubby component must be less than 5m wide at the base. This hedgerow type may have hedgerow trees along its length, but their canopies will be more than 20m apart. Where the structural species making up the 30m section of hedgerow include at least five (or at least four in northern and eastern England, upland Wales and Scotland) woody species that are either native to the UK, or which are archaeophytes (see Appendix 11 of the Hedgerow Survey Handbook), the hedgerow is defined as species-rich. Climbers and bramble do not count towards the total except for roses.
Native species rich hedgerow - with bank or ditch	A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground, so that the woody linear feature as a whole appears as a 'shrubby' hedgerow, even though some of the woody species in it are capable of growing into trees. The shrubby component must be less than 5m wide at the base. This hedgerow type may have hedgerow trees along its length, but their canopies will be more than 20m apart. Where the structural species making up the 30m section of hedgerow include at least five (or at least four in northern and eastern England, upland Wales and Scotland) woody species that are either native to the UK, or which are archaeophytes (see Appendix 11 of the Hedgerow Survey Handbook), the hedgerow is defined as species-rich. Climbers and bramble do not count towards the total except for roses.

Hedgerow type	Description
	Bank or ditch, see 'Native hedgerow - with bank or ditch' for description.
Native species rich hedgerow with trees	A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground. The shrubby component must be less than 5m wide at the base. The hedgerow must be more than 20m of continuous vegetation and have a distinct Line of trees extending above it, the tree canopies being closer than 20m, so that the woody linear feature as a whole appears as a 'shrubby layer plus lollipops'. Where the structural species making up the 30m section of hedgerow include at least five (or at least four in northern and eastern England, upland Wales and Scotland) woody species that are either native to the UK, or which are archaeophytes (see Appendix 11 of the Hedgerow Survey Handbook), the hedgerow is defined as species-rich. Climbers and bramble do not count towards the total except for roses.
Native species rich hedgerow with trees - with bank or ditch	A line of woody hedgerow plants that have some or all of their leafy canopies less than 2m in height from the ground. The shrubby component must be less than 5m wide at the base. The hedgerow must be more than 20m of continuous vegetation and have a distinct Line of trees extending above it, the tree canopies being closer than 20m, so that the woody linear feature as a whole appears as a 'shrubby layer plus lollipops'. Where the structural species making up the 30m section of hedgerow include at least five (or at least four in northern and eastern England, upland Wales and Scotland) woody species that are either native to the UK, or which are archaeophytes (see Appendix 11 of the Hedgerow Survey Handbook), the hedgerow is defined as species-rich. Climbers and bramble do not count towards the total except for roses. Bank or ditch, see 'Native hedgerow - with bank or ditch' for description.
Line of trees	This is a line of trees where the base of the canopy is greater than 2m from the ground and the gap between individual tree canopies is less than 20m, so that the woody linear feature as a whole appears as a 'line of lollipops'. To meet the handbook definition the width of the feature at the base of the tree trunks should be less than 5m. There may be a distinct shrub layer beneath the Line of trees, but this shrub layer has less than 20m of continuous canopy cover.
Line of trees - with bank or ditch	This is a line of trees where the base of the canopy is greater than 2m from the ground and the gap between individual tree canopies is less than 20m, so that the woody linear feature as a whole appears as a 'line of lollipops'. To meet the handbook definition the width of the feature at the base of the tree trunks should be less than 5m. There may be a distinct shrub layer beneath the Line of trees, but this shrub layer has less than 20m of continuous canopy cover. Bank or ditch, see 'Native hedgerow - with bank or ditch' for description.
Line of trees (ecologically valuable)	This is a line of trees where the base of the canopy is greater than 2m from the ground and the gap between individual tree canopies is less than 20m, so that the woody linear feature as a whole appears as a 'line of lollipops'. To meet the handbook definition the width of the feature at the base of the tree trunks should be less than 5m. There may be a distinct shrub layer beneath the Line of trees, but this shrub layer has less than 20m of continuous canopy cover.

Hedgerow type	Description
	To qualify as ecologically valuable there must be at least one tree per 30m length of ancient and/or veteran quality. All ancient trees are veteran trees, but not all veteran trees are ancient: Ancient trees can be classified using the following girth guide at 1.5m from the ground[10]: • >2.5m for field maple, rowan, yew, birch, holly and other, smaller tree species; • >4m for oaks, ash, Scot's pine and alder; • >4.5m for sycamore, lime, horse chestnut, sweet chestnut, elm species, poplar species, beech, willows, other pines and exotics. Veteran trees can be classified if they have four out of the five following features[10]: 1. Rot sites associated with wounds which are decaying >400cm^2; 2. Holes and water pockets in the trunk and mature crown >5cm diameter; 3. Dead branches or stems >15cm diameter; 4. Any hollowing in the trunk or major limbs; 5. Fruit bodies of fungi known to cause wood decay.
Line of trees (ecologically valuable) - with bank or ditch	This is a line of trees where the base of the canopy is greater than 2m from the ground and the gap between individual tree canopies is less than 20m, so that the woody linear feature as a whole appears as a 'line of lollipops'. To meet the handbook definition the width of the feature at the base of the tree trunks should be less than 5m. There may be a distinct shrub layer beneath the Line of trees, but this shrub layer has less than 20m of continuous canopy cover. To qualify as ecologically valuable there must be at least one tree per 30m length of ancient and/or veteran quality. Ancient trees can be classified using the following girth guide at 1.5m from the ground: • >2.5m for field maple, rowan, yew, birch, holly and other smaller tree species; • >4m for oaks, ash, Scot's pine, and alder; • >4.5m for sycamore, lime, horse chestnut, sweet chestnut, elm species, poplar species, beech, willows, other pines and exotics. Veteran trees can be classified if they have four out of the five following features: 1. Rot sites associated with wounds which are decaying >400cm^2; 2. Holes and water pockets in the trunk and mature crown >5cm diameter; 3. Dead branches or stems >15cm diameter; 4. Any hollowing in the trunk or major limbs; 5. Fruit bodies of fungi known to cause wood decay. Bank or ditch, see 'Native hedgerow - with bank or ditch' for description.

[10] See: FAY, N. AND DE BERKER, N. (1997) *Specialist Survey Method. Veteran Trees Initiative*, English Nature. Peterborough.

1.17 The condition of hedgerows and lines of trees is assessed using two different sets of criteria, based on their key ecological and physical characteristics so two separate condition assessment sheets are provided in Annex 1 to differentiate between these assessments. To select the correct sheet, see table TS1-3 below.

TABLE TS1-3: Choosing the right condition sheet: hedgerows and lines of trees
(Priority habitats are indicated in bold text)

Habitat Type	Condition Sheet
Broad habitat type: Hedgerows and lines of trees	
Hedgerows and lines of trees - Line of trees	Line of trees
Hedgerows and lines of trees - Line of trees - associated with bank or ditch	Line of trees
Hedgerows and lines of trees - Line of trees (ecologically valuable)	Line of trees
Hedgerows and lines of trees - Line of trees (ecologically valuable) - associated with bank or ditch	Line of trees
Hedgerows and lines of trees - Hedge ornamental non-native	No assessment required - condition fixed at Poor
Hedgerows and lines of trees - Native hedgerow	Hedgerow
Hedgerows and lines of trees - Native hedgerow - associated with bank or ditch	Hedgerow
Hedgerows and lines of trees - Native hedgerow with trees	Hedgerow
Hedgerows and lines of trees - Native hedgerow with trees - associated with bank or ditch	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow - associated with bank or ditch	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow with trees	Hedgerow
Hedgerows and lines of trees - Native species rich hedgerow with trees - associated with bank or ditch	Hedgerow

Condition assessment of hedgerows

1.18 The condition sheet for hedgerows (Annex 1, Part 8) assesses a series of eight ‘attributes’, representing key physical characteristics. The attributes use similar favourable condition criteria to the ‘Hedgerow Survey Handbook’ and the handbook is the recommended source of reference for assessing hedgerow attributes.

1.19 Each attribute is assigned to one of five functional groups (A – E), and the condition of a hedgerow is assessed according to the number of attributes passed within each of these functional groups. Each attribute in groups A-D must be assessed for all hedgerows, plus attributes in group E for hedgerows with trees.

1.20 The Hedgerow condition assessment generates a condition category and associated score ranging from 1-3, which can then be input into biodiversity metric 3.1 calculation tool.

Lines of trees

1.21 Although this is a linear habitat type which sits within a separate module of biodiversity metric 3.1, the method for condition assessment of Lines of trees is the same as for area habitats (see Part 1a, Step 3: Using condition sheets).

1.22 Biodiversity metric 3.1 condition assessment for lines of trees uses a set of 5 criteria which consider age, health and species composition of the trees and the extent of canopy connectivity.

Part 1c – Assessing Habitat Condition: Rivers and streams

1.23 Assessment of river condition[11] is based on the extent and diversity of observed physical features in the river channel and riparian zone (including the physical structure of vegetation) as well as the extent and types of any human modifications. The physical state of a river reach is a useful proxy for determining overall riverine ecological quality but needs to be attuned to the type of river under consideration.

1.24 The assessment of river condition is based on geomorphic principles that are an extension of established citizen science surveys[12]. The assessment, called the River Condition Assessment (RCA), is implemented in two parts:

(i) A largely desk-based reach-scale assessment indicates the current **river type**.

(ii) A sub-reach scale assessment based entirely on field survey captures channel dimensions, physical features / habitats, vegetation structural features, and human interventions to assess the **condition** of the river at the development site, taking into account the type of river.

Part 1 - Reach scale desk-based assessment

1.25 The river is assigned to one of 13 river types that are likely to be encountered in England (Figure TS 1-1). These are a subgroup of 22 broad types of river that have been identified for Europe[13,14], including the United Kingdom[15]. The river type is determined firstly by identifying a homogenous reach that contains the proposed intervention site. This reach is identified using the latest Ordnance Survey (1:10,000 scale) maps or air photographs (e.g. Google Earth) and searching upstream and downstream from the proposed intervention site. To delimit the start and end point, an homogeneous river reach will show a reasonably consistent planform with no major tributary streams, on-line large lakes or reservoirs, as these could cause a marked change in the flow regime and sediment load.

1.26 Once the reach is determined, its gradient and 4 properties of its planform are measured to support an initial assessment of the river type. This is further refined using 4 properties of the riverbed sediments observed in field surveys of sub-reaches (see below). The assignment of this indicative river type is automatically carried out within the River Condition Assessment Information System.

1.27 Two additional river types can be assigned beyond those shown in Figure TS1-1: rivers that are too large or too deep for the bed material to be surveyed adequately (large rivers), and those that are too heavily modified to conform to any of the types (navigable rivers and canals).

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[11] See: GURNELL, A.M., ET AL. (2020) Assessing river condition: A multiscale approach designed for operational application in the context of biodiversity net gain. *River Research and Applications*, 36: 1559-1578.
[12] See: MODULAR RIVER SURVEY TEAM. (2022) *River Condition Assessment for Biodiversity Metric 3.0* [online]. Available from: Modular River Survey
[13] See: GURNELL, A.M. ET AL. (2016) A multi-scale hierarchical framework for developing understanding of river behaviour to support river management. *Aquatic Sciences*, 78(1): 1-16.
[14] See: RINALDI, M., ET AL. (2016) Classification of river morphology and hydrology to support management and restoration. *Aquatic Sciences*, 78(1): 17-33.
[15] See: ENGLAND, J. AND GURNELL, A.M. (2016) Incorporating Catchment to Reach Scale Processes into Hydromorphology Assessment in the UK. *Water and Environment Journal*, 30: 22–30.

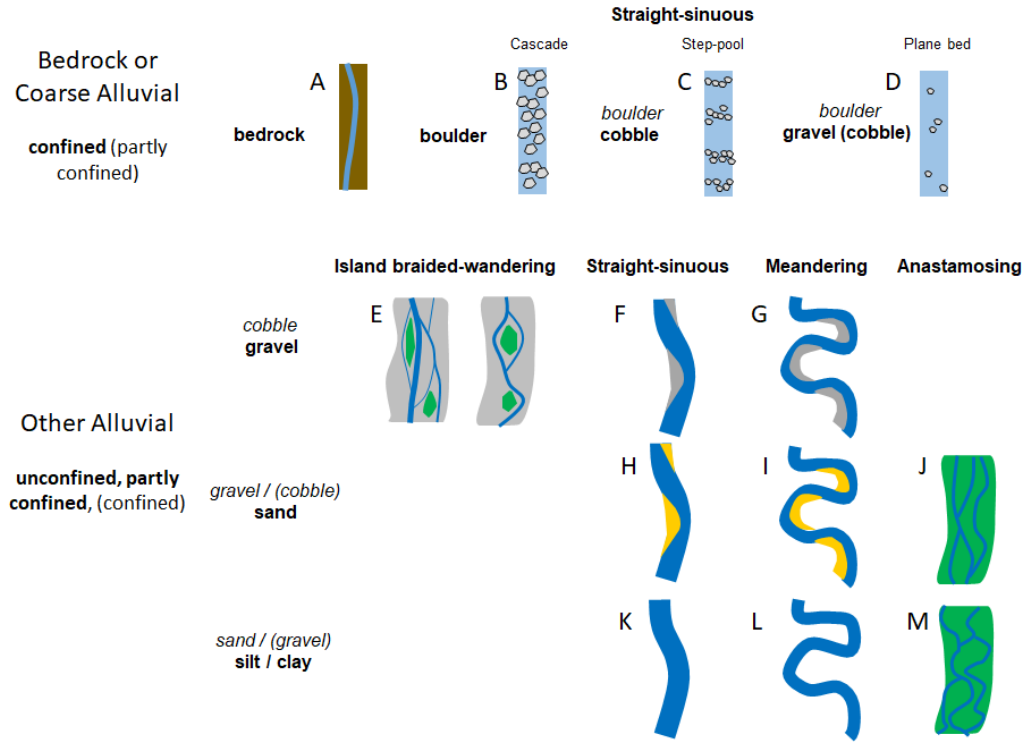

FIGURE TS1-1: The 13 river types found in Britain based on valley confinement, planform and bed material size[11, 13, 14]

Part 2 - Sub-reach scale field assessment

1.28 The field element employs the MoRPh (**Mo**dular **R**iver **Ph**ysical) survey[16,17], which is applied to short lengths of river. For the River Condition Assessment, five MoRPh field surveys are conducted on contiguous lengths (modules) of river. Each MoRPh module covers a river length that is approximately twice the river width (typically 10, 20, 30, 40 or 50 m in length). Completing five contiguous modules provides information for a 50 to 250 m long sub-reach. Depending on the size of the development, the sub-reach survey of five modules is repeated to capture at least 20% of the total river length under consideration (i.e. one sub-reach survey every 250 to 1250 m) and also to characterise any notable variation in river character at a site. The River Condition Assessment captures information on sediments, vegetation, morphological and water-related features; and the extent and severity of physical modification within the channel, channel margins, banks and riparian zone (to 10 m from the bank tops).

1.29 Once each set of observations for five contiguous modules is entered into the web application, indicators of the condition of the sub-reach are automatically provided, as

[16] See: SHUKER, L.J. ET AL. (2017) MoRPh: a citizen science tool for monitoring and appraising physical habitat changes in rivers. *Water and Environment Journal*, 31(3): 418-424.
[17] See: GURNELL, A.M., ET AL. (2019). The contribution of citizen science volunteers to river monitoring and management: International and national perspectives and the example of the MoRPh survey. *River Research and Applications* [online]. Available from: Microsoft Word - Gurnelletal RRA 2019 self-archive (qmul.ac.uk)

well as an overall condition (the final condition) of Good, Fairly Good, Moderate, Fairly Poor or Poor, which is assigned a numerical weighting (User Guide Table 8-5).

1.30 The final condition is scaled to fit a range that is achievable by the particular river type. In cases where the final condition is estimated to be Good or Fairly Good for river types D to M, a final stage is to consider the likely hydrological connectivity among the habitats that are present. If the surveyed channels are identified as being too deep relative to their width to be fully hydrologically connected, the final condition is downgraded from Good to Fairly Good or from Fairly Good to Moderate. In addition to the indicators of condition and the Final condition assessment, guidance is given on which specific geomorphic features are expected or are highly likely to be observed in the field surveys if the river is in good condition and functioning according to its river type.

Assessing condition of Ditches, Culverts and Canals

1.31 There are a number of habitats within the Rivers and streams broad habitat type that are not covered by the River Condition Assessment. **Ditches** have their own biodiversity metric 3.1 condition assessment (see Table TS1-1 and TS1-6). Although this is a linear habitat type, the method for condition assessment of ditches is the same as for area habitats (see Part 1a, Step 3: Using condition sheets).

TABLE TS1-6: Choosing the right condition sheet: Ditches

Habitat Type	Condition Sheet
Broad habitat type: Rivers and streams	
Rivers and streams - Ditches	Ditches

1.32 There is no need to assess the condition of **Culverts**, because of their heavily modified nature they are all assumed to be in poor condition. However, the River Condition Assessment can be used be used to assess the condition of **Canals**, despite their artificial nature, since the method accounts only for riparian and edge habitat rather than in-channel features.

Part 2 – Considerations that shaped biodiversity metric 3.1

2.1 This technical supplement section provides an overview of the considerations and rationale underpinning the following component parts of the metric:Habitat classification

- Waterbody types
- Habitat distinctiveness
- Condition
- Time to target condition
- Habitat creation and restoration risks

2.2 The detailed value tables for these factors for each habitat are presented in Part 3.

Habitat classification

2.3 There are a variety of habitat classification systems and habitat definitions used in biodiversity metric 3.1. The derivation of each habitat definition is shown in Table TS2-1 and explained further below.

2.4 The majority of **terrestrial habitats** are classified according to UK Habitat Classification (UKHab) definitions (UKHab Ltd., 2022)[18]. The UK Habitat Classification is a unified and comprehensive approach to classifying habitats which covers terrestrial and freshwater habitats, is flexible enough for use in a wide range of survey types from walkover surveys of small urban sites to large scale rural habitat mapping.

2.5 **Intertidal habitats** are defined in the metric according to the European Nature Information System, (EUNIS) (European Environment Agency (EAA), 2019)[19]. EUNIS is a comprehensive pan-European system developed to facilitate the harmonised description and collection of data across Europe; it covers all habitat types from natural to artificial, and through to the marine (subtidal) environment. The EUNIS habitat classification system is the habitat classification used in reporting across the marine environment in Europe and is compatible with marine protected areas' (MPA) monitoring data. Habitats are reported in EUNIS for national and international, biodiversity and natural capital work. For many areas there is preliminary data available through Magic Maps[20] or EMODnet[21]. EUNIS provides a more comprehensive assessment of intertidal habitats that does UKHab and so has been selected to use as the intertidal habitat classifications used in biodiversity metric 3.1. Habitat types are defined for the purposes of the EUNIS classification as 'plant and animal communities as the characterising elements of the biotic environment, together with abiotic factors operating together at a particular scale'.

[18] UKHAB LTD. (2022) *UK Habitat Classification* [online]. Available from: https://ukhab.org/
[19] EUROPEAN ENVIRONMENT AGENCY (EEA) (2019) *EUNIS habitat type hierarchical view* [online]. Available from: EUNIS -EUNIS habitat type hierarchical view (europa.eu)
[20] See: DEFRA (2022) *Multi-Agency Geographic Information for the Countryside* (MAGIC) [online]. Available from: MAGIC (defra.gov.uk)
[21] See: THE EUROPEAN MARINE OBSERVATION AND DATA NETWORK (EMODnet) (2022) *Map Viewer, Download & metadata catalogue* [online] Available from: EMODnet Seabed Habitats - ACCESS DATA (emodnet-seabedhabitats.eu)

2.6 Levels 1 and 2 of EUNIS simply define the habitat as ‘marine’ (EUNIS “A”) and its location in relation to the tide and depth. At EUNIS Level 2, the habitats that are included in this section of the metric are those located below the mean high water mark with clear marine origin: (A1) Littoral rock and other hard substrate; (A2) Littoral sediment; and (X02/03) Coastal lagoons.

2.7 Whilst EUNIS Level 3 is appropriate for reporting in the majority of circumstances, EUNIS Level 4 and 5 provide the additional detail needed to separate higher and lower value habitats for certain habitat complexes and allow for the identification of Annex 1[22] and Section 41 Priority Habitats[23] (e.g. separating High energy littoral rock from High energy littoral rock on peat and clay exposures). Hence, EUNIS Level 4 should be used to record intertidal habitats so that high value and irreplaceable habitats are identified at an early stage of the process. NB: The Level 3 habitat ‘Littoral sand and muddy sand’ has been split into two distinct habitats for the purposes of the metric: a. ‘Littoral sand’ and b. ‘Littoral muddy sand’, in order to better capture the different distinctiveness bands for each (medium and high respectively).

2.8 Restored ‘natural’ intertidal habitats are identified in the metric as those that have been restored with the aim of biodiversity conservation either by re-establishing natural processes or with very limited engineering to support natural processes.

2.9 Intertidal ‘artificial habitats’ have been added to the metric where needed (Table TS2-2). The artificial intertidal sediment habitats are defined as being an ‘artificial’ example of the equivalent EUNIS habitat. The three artificial hard-substrate habitats ‘Artificial hard structures’, ‘Features of artificial hard structures’; and ‘Artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)’ are all man-made structures.

[22] *The Conservation of Habitats and Species Regulations 2017.* (SI 2017/1012) [online]. Available from: http://www.legislation.gov.uk/uksi/2017/1012/contents/made

[23] *Natural Environment and Rural Communities Act 2006 (NERC 2006)* [online]. Available from: http://www.legislation.gov.uk/ukpga/2006/16/contents#Scenario5Help

Table TS2-1: Habitats within biodiversity metric 3.1 and the classification system from which their definition is derived

Key:
In some cases, the name used in biodiversity metric 3.1 may differ slightly from that used in the original classification system. These are shown in *italics.* There are some habitat types used in biodiversity metric 3.1 where the definition is not derived from any of the 3 classification systems described below (UKHab, EUNIS or WFD Lakes typology). These are shown in **bold** and the origin of the definition is given.

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
Cropland	*Arable field margins cultivated annually*	*UKHab*	*Arable field margins cultivated annually with an annual flora*	Note: Where field margins meet the definition of a 'better' or higher distinctiveness habitat they should be mapped as such within the metric.
	Arable field margins game bird mix	*UKHab*	*Game bird mix strips and corners* *Game bird mix fields*	
	Arable field margins pollen & nectar	*UKHab*	*Arable field margins sown with wildflowers or a pollen and nectar mix*	
	Arable field margins tussocky	*UKHab*	*Arable field margins sown with tussocky grasses*	
	Cereal crops	UKHab	Cereal crops	
	Cereal crops winter stubble	UKHab	Winter stubble	
	Horticulture	UKHab	Horticulture	
	Intensive orchards	UKHab	Intensive orchards	
	Non-cereal crops	UKHab	Non-cereal crops	
	Temporary grass and clover leys	UKHab	Temporary grass and clover leys	
Grassland	Traditional orchards	UKHab	Traditional orchards	
	Bracken	UKHab	Bracken	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Floodplain wetland mosaic (CFGM)	**Definition based on Priority Habitat Inventory maps***	**Coastal and floodplain grazing marsh**	***Where an area is included within the (soon to be published) Floodplain wetland mosaic Habitat Inventory as <u>extant habitat</u> OR included within the Floodplain with <u>potential for restoration</u> to Wetland Mosaic layer** it should be recorded within the metric as FWM habitat. In these cases, the ditches form an integral part of the habitat and should <u>not</u> be recorded separately as linear features in the Rivers & Streams part of the metric. **If it is NOT included within either layer of the inventory** it should be assessed, and entered into the metric, as the appropriate habitat (e.g. modified grassland, cereal crop, temporary lakes, ponds and pools). Any ditches should be recorded separately within the River and Streams part of the metric. **Until this new inventory is published**, you should use existing inventories for floodplain habitats, including the Coastal and Floodplain Grazing Marsh layer of the Priority Habitat Inventory (England) and any local habitat data[24].
	Lowland calcareous grassland	UKHab	Lowland calcareous grassland	

[24] See: NATURAL ENGLAND (2021). *Priority Habitat Inventory (England)* [online]. Available from: Priority Habitat Inventory (England) - data.gov.uk

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Lowland dry acid grassland	UKHab	Lowland dry acid grassland	
	Lowland meadows	UKHab	Lowland meadows	
	Modified grassland	UKHab	Modified grassland	
	Other lowland acid grassland	UKHab	Other lowland acid grassland	
	Other neutral grassland	UKHab	Other neutral grassland	
	Tall herb communities (H6430)	UKHab*	Tall herb communities (H6430)	*All Tall herb not meeting this definition should be recorded as Other neutral grassland
	Upland acid grassland	UKHab	Upland acid grassland	
	Upland calcareous grassland	UKHab	Upland calcareous grassland	
	Upland hay meadows	UKHab	Upland hay meadows	
Heathland and shrub	Blackthorn scrub	UKHab	Blackthorn scrub	
	Bramble scrub	UKHab	Bramble scrub	
	Gorse scrub	UKHab	Gorse scrub	
	Hawthorn scrub	UKHab	Hawthorn scrub	
	Hazel scrub	UKHab	Hazel scrub	
	Lowland heathland	UKHab	Lowland heathland	
	Mixed scrub	UKHab	Mixed scrub	
	Mountain heaths and willow scrub	UKHab	Mountain heaths and willow scrub	
	Rhododendron scrub	UKHab	Rhododendron scrub	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Sea buckthorn scrub (Annex 1)	**Use Habitats Directive Annex 1 definition[25]**	**Dunes with sea buckthorn (H2160)**	All other sea buckthorn scrub should be recorded as Sea buckthorn scrub (other)
	Sea buckthorn scrub (other)	UKHab	Other sea buckthorn scrub	
	Upland heathland	UKHab	Upland heathland	
Lakes	Aquifer fed naturally fluctuating water bodies	UKHab	Aquifer fed naturally fluctuating water bodies	
	Ornamental lake or pond	*UKHab*	*Artificial lake or pond*	≤ 2ha
	High alkalinity lakes	WFD Lakes typology[26]	N/A	≥ 2ha
	Low alkalinity lakes	WFD Lakes typology	N/A	≥ 2ha
	Marl lakes	WFD Lakes typology	N/A	≥ 2ha
	Moderate alkalinity lakes	WFD Lakes typology	N/A	≥ 2ha
	Peat lakes	WFD Lakes typology	N/A	≥ 2ha
	Ponds (Priority Habitat)	UKHab	Ponds (Priority Habitat)	≤ 2ha
	Ponds (Non-Priority Habitat)	**Ponds which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds**	**N/A**	≤ 2ha
	Reservoirs	**UKHab/WFD Lakes typology***	**Reservoir**	***Some larger reservoirs are covered by the WFD Lakes typology**

[25] See: JNCC (No date) *2160 Dunes with Hippophae rhamnoides* [online]. Available from: Dunes with sea-buckthorn (Dunes with *Hippophae rhamnoides*) - Special Areas of Conservation (jncc.gov.uk)

[26] See: UKTAG (2004) *UK Technical Advisory Group on the Water Framework Directive Guidance on Typology for Lakes for the UK (Draft)* [online]. Available from: Title: (wfduk.org)

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Temporary lakes, ponds and pools	*UKHab**	*Mediterranean temporary ponds (H3170)*	*All temporary water bodies not meeting this definition should be recorded as the appropriate pond or lake habitat type
Sparsely vegetated land	Calaminarian grasslands	UKHab	Calaminarian grasslands	
	Coastal sand dunes	UKHab	Coastal sand dunes	
	Coastal vegetated shingle	UKHab	Coastal vegetated shingle	
	Ruderal/Ephemeral	UKHab	Ruderal/Ephemeral	
	Inland rock outcrop and scree habitats	UKHab	Inland rock outcrop and scree habitats	
	Limestone pavement	UKHab	Limestone pavement	
	Maritime cliff and slopes	UKHab	Maritime cliff and slopes	
	Other inland rock and scree	UKHab	Other inland rock and scree	
Urban	Allotments	UKHab	Allotments	Note: Where habitats within a allotment meet the definition of a ‘better’ or higher distinctiveness habitat these should be recorded as such within the metric.
	Artificial unvegetated, unsealed surface	UKHab	Artificial unvegetated, unsealed surface	
	Bioswale	UKHab	Bioswale	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Biodiverse green roof	Metric specific, see notes	Brown roof	Biodiverse Green Roofs are extensive green roofs designed specifically for biodiversity and should: • Have a depth of substrate (not including a blanket or turf) that varies between 80 and 150mm with at least 50% of the roof at 150mm deep. • The green roof should be planted and seeded with a wide range of dry grassland wildflowers and sedum species (40+ ideally). • Other features like habitat for solitary nesting bees, logs etc should ideally be included in the design.
	Built linear features	UKHab	Built linear features	
	Cemeteries and churchyards	UKHab	Cemetery	Note: Where habitats within a cemetery meet the definition of a 'better' or higher distinctiveness habitat these should be recorded as such within the metric.
	Developed land; sealed surface	UKHab	Developed land; sealed surface	
	Façade-bound green wall	UKHab	Façade-bound green wall	
	Ground based green wall	UKHab	Ground based green wall	
	Ground level planters	UKHab	Ground level planters	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Intensive green roof	Metric specific, see notes	Intensive green roof	Intensive Green Roofs are: A high maintenance green roof that is designed as a park or 'garden' and includes shrubs, trees, perennials and grasses (including water features). Key features: • At least 50% native and at least 30% non-native of wildflower interest. • At least 70% of the surface of the green roof should be soil and vegetation (including water features) • Only 30% should be hard standing (such as paving).
	Introduced shrub	UKHab	Introduced shrub	
	Open mosaic habitats on previously developed land	UKHab	Open mosaic habitats on previously developed land	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Other green roof	Metric specific, see notes		<u>Other green roof is either wildflower turf or sedum blankets.</u> Wildflower turf: • Support a range of wildflower species but lacks the topography and diversity of Biodiverse green roofs. • Generally needs significant irrigation. Sedum blankets • are a 60mm deep green roof (20mm sedum 40mmm substrate); and • are of limited value as an offset for loss of biodiversity.
	Rain garden	UKHab	Rain garden	
	Actively worked sand pit quarry or open cast mine	UKHab	Sand pit quarry or open cast mine	This classification relates to non-vegetated working areas only. Mineral extraction sites can support a wide range of habitats, including ponds, heathland, grassland, sparsely vegetated land, bare ground, flushes and springs etc. These should be classified separately.
	Urban tree	**Metric specific (see User Guide Chapter 7)**	**N/A**	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Sustainable urban drainage feature	UKHab*	Sustainable urban drainage feature	*In biodiversity metric 3.1 should only be used for open SUDS with vegetation and/or open water
	Un-vegetated garden	*UKHab*	*Garden*	
	Vacant/derelict land/ bare ground	UKHab	Vacant/derelict land	
	Vegetated garden	*UKHab*	*Garden*	
Wetland	Blanket bog	UKHab	Blanket bog	
	Depressions on Peat substrates (H7150)	UKHab	Depressions on Peat substrates (H7150)	
	Fens (upland and lowland)	*UKHab*	*Lowland fens* *Upland flushes, fens and swamps*	
	Lowland raised bog	UKHab	Lowland raised bog	
	Wetland – Oceanic Valley Mire [1] (D2.1)	*EUNIS*	*Oceanic valley bog*	
	Purple moor grass and rush pastures	UKHab	Purple moor grass and rush pastures	
	Reedbeds	UKHab	Reedbeds	
	Transition mires and quaking bogs (H7140)	UKHab	Transition mires and quaking bogs; lowland (H7140)	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
Woodland and forest	Felled	UKHab	Felled	Note that this classification should only be used when determining the baseline units of the site and the original habitat type of the felled woodland cannot be determined. If the habitat type of the felled woodland is known (either through data records, imagery or field survey) then the area should be entered into the metric as the relevant woodland type. In the absence of evidence to the contrary, the baseline condition for that area must be fixed at Good.
	Lowland beech and yew woodland	UKHab	Lowland beech and yew woodland	
	Lowland mixed deciduous woodland	UKHab	Lowland mixed deciduous woodland	
	Native pine woodlands	UKHab	Native pine woodlands	
	Other coniferous woodland	UKHab	Other coniferous woodland	
	Other Scot's pine woodland	UKHab	Other Scot's pine woodland	
	Other woodland; broadleaved	UKHab	Other woodland; broadleaved	
	Other woodland; mixed	UKHab	Other woodland; mixed	
	Upland birchwoods	UKHab	Upland birchwoods	
	Upland mixed ashwoods	UKHab	Upland mixed ashwoods	
	Upland oakwood	UKHab	Upland oakwood	
	Wet woodland	UKHab	Wet woodland	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Wood-pasture and parkland	UKHab	Wood-pasture and parkland	
Coastal lagoons	*Coastal lagoons*	*EUNIS*	*Saline coastal lagoons*	
Coastal saltmarsh	*Saltmarshes and saline reedbeds*	*EUNIS*	*Coastal saltmarshes and saline reedbeds*	
	Artificial saltmarshes and saline reedbeds	*Adapted from EUNIS - see table TS2-2*		
Rocky shore	High energy littoral rock	EUNIS	High energy littoral rock	
	High energy littoral rock - on peat, clay or chalk	*Subset of EUNIS habitat based on substrate*	*High energy littoral rock*	
	Moderate energy littoral rock	EUNIS	Moderate energy littoral rock	
	Moderate energy littoral rock - on peat, clay or chalk	*Subset of EUNIS habitat based on substrate*	*Moderate energy littoral rock*	
	Low energy littoral rock	EUNIS	Low energy littoral rock	
	Low energy littoral rock - on peat, clay or chalk	*Subset of EUNIS habitat based on substrate*	*Low energy littoral rock*	
	Features of littoral rock	EUNIS	Features of littoral rock	
	Features of littoral rock - on peat, clay or chalk	*Subset of EUNIS habitat based on substrate*	*Features of littoral rock*	
Intertidal sediment	Littoral coarse sediment	EUNIS	Littoral coarse sediment	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Littoral sand	*EUNIS*	*Littoral sand and muddy sand*	
	Littoral muddy sand	*EUNIS*	*Littoral sand and muddy sand*	
	Littoral mud	EUNIS	Littoral mud	
	Littoral mixed sediments	EUNIS	Littoral mixed sediments	
	Littoral seagrass	*EUNIS*	*Littoral sediments dominated by aquatic angiosperms*	
	Littoral seagrass on peat, clay or chalk	*Subset of EUNIS habitat based on substrate*	*Littoral sediments dominated by aquatic angiosperms*	
	Littoral biogenic reefs - Mussels	*Subset of EUNIS habitat based on reef forming species*	*Littoral biogenic reefs*	
	Littoral biogenic reefs - Sabellaria	*Subset of EUNIS habitat based on reef forming species*	*Littoral biogenic reefs*	
	Features of littoral sediment	EUNIS	Features of littoral sediment	
	Artificial littoral coarse sediment	*Adapted from EUNIS - see table TS2-2*		
	Artificial littoral muddy sand	*Adapted from EUNIS - see table TS2-2*		
	Artificial littoral mud	*Adapted from EUNIS - see table TS2-2*		
	Artificial littoral sand	*Adapted from EUNIS - see table TS2-2*		

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Artificial littoral mixed sediments	*Adapted from EUNIS - see table TS2-2*		
	Artificial littoral seagrass	*Adapted from EUNIS - see table TS2-2*		
	Artificial littoral biogenic reefs	*Adapted from EUNIS - see table TS2-2*		
Intertidal hard structures	*Artificial hard structures*	*Adapted from EUNIS - see table TS2-2*		
	Artificial features of hard structures	*Adapted from EUNIS - see table TS2-2*		
	Artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	*Adapted from EUNIS - see table TS2-2*		
Hedgerows and Lines of Trees	**Native Species Rich Hedgerow with trees - Associated with bank or ditch**	**Metric specific (see where in Part 1 b)**		
	Native Species Rich Hedgerow with trees	**Metric specific (see where in Part 1 b)**		
	Native Species Rich Hedgerow - Associated with bank or ditch	**Metric specific (see where in Part 1 b)**		
	Native Hedgerow with trees - Associated with bank or ditch	**Metric specific (see where in Part 1 b)**		
	Native Species Rich Hedgerow	**Metric specific (see where in Part 1 b)**		

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Native Hedgerow - Associated with bank or ditch	**Metric specific (see where in Part 1 b)**		
	Native Hedgerow with trees	**Metric specific (see where in Part 1 b)**		
	Line of Trees (Ecologically Valuable)	**Metric specific (see where in Part 1 b)**		
	Line of Trees (Ecologically Valuable) - with Bank or Ditch	**Metric specific (see where in Part 1 b)**		
	Native Hedgerow	**Metric specific (see where in Part 1 b)**		
	Line of Trees	**Metric specific (see where in Part 1 b)**		
	Line of Trees - Associated with bank or ditch	**Metric specific (see where in Part 1 b)**		
	Hedge Ornamental Non-Native	*UKHab*	*Other hedgerows*	
Rivers and streams	Priority Habitat	UKHab	Rivers (priority habitat)	
	Other Rivers and streams	UKHab	Other Rivers and streams	

Biodiversity Metric 3.1 Broad Habitat	Biodiversity Metric 3.1 Habitat Type	Classification system from which the definition is derived	UKHab/EUNIS name	Other definition/notes
	Ditches	**Metric specific (see User Guide Box 3-1 and 8.29)**	**Ditch**	**Artificially created, linear water-conveyancing features that are less than 5 m wide and likely to retain water for more than 4 months of the year. Their hydraulic function is primarily for land drainage, and although partially or fully connected to a river system, they would not have been present without human intervention'** ***[Note: some heavily engineered ditches may actually be part of the river system (usually part of the headwater system). If there is uncertainty, consult historic maps, LIDAR data and riverine specialists]***
	Canals	UKHab	Canals	
	Culvert	**s.39 Flood and Water Management Act, 2010:** **A covered channel or pipe designed to prevent the obstruction of a watercourse or drainage path by an artificial construction**	**N/A**	

TABLE TS2 -2: Artificial intertidal habitat definitions

Code	Title	Habitat Specific Description & Examples
ART_A1	Intertidal artificial hard structures	Artificial hard structures are man-made structures fulfilling a range of functions (e.g. coastal defences, port, harbour and marina installations, energy infrastructure, aquaculture). They can be made of various hard materials (artificial or natural rock, wood, plastics, metal) that would not normally be found in the area they are being deployed. **Examples:** seawalls, breakwaters, groynes, jetties, pilings, aquaculture trestles.
ART_A1.4	Intertidal artificial features of hard structures	Where man-made materials are used to create artificial versions of A1.4 Features of littoral rock
ART_A1 IGGI	Intertidal artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	Where natural materials (most commonly naturally occurring rock) are used to create man-made structures for a range of functions (e.g. coastal defences, aquaculture). The structures' designs must maximise likeness to the naturally occurring hard habitats from that area in terms of material (e.g. geological origin), position (tidal level, exposure, aspect), topographic complexity (surface roughness, availability of microhabitat like rock pools or crevices, slope), to support their colonisation with species naturally occurring in the area and to maximise benefits for biodiversity and ecosystem function. **Examples**: breakwaters or seawalls built with materials local to the region, and with depressions (rock pools) added during the design process or retrospectively
ART_A2.1	Artificial littoral coarse sediment	Artificial sedimentary habitats will be those that cannot meet the general natural definition, particularly in respect to using substrate that is not of marine origin or that cannot remain in situation without significant engineering. **Beneficial use & beach recharge or replenishment:** Provided these use the same sediment type as originally present they fall into enhancement of existing habitats. In these situations, do not use the artificial habitat definition. Ensuring condition is as good as or better than

Code	Title	Habitat Specific Description & Examples
ART_A2.21/A2.22/A2.23	Artificial littoral sand	originally and still requiring the 10% biodiversity unit gain. If it's a different sediment type then it will be habitat creation – to be considered natural sediment creation the scheme must meet the natural habitat definition including an aim for biodiversity conservation. Otherwise, they will be considered artificial in the metric. **Examples of artificial littoral sediment habitats:** Sediments deposited around artificial islands, sediments contained in floating devices.
ART_A2.24	Artificial littoral muddy sand	
ART_A2.3	Artificial littoral mud	
ART_A2.4	Artificial littoral mixed sediments	
ART_A2.5	Artificial coastal saltmarshes and saline reed beds	For these habitats the artificial nature is determined by the underlying substrate, the vast majority of restoration activities will fall under the net gain definition of recreated natural habitats. Situations that fall under artificial will be limited but not impossible and include any base substrate that falls under artificial in the definition above. **Example:** floating habitat creation systems where the underlying substrate is artificially contained.
ART_A2.6	Artificial littoral sediments dominated by aquatic angiosperms	
ART_A2.7	Artificial littoral biogenic reefs	

Distinguishing waterbody types

2.10 In biodiversity metric 3.1 waterbodies with an area of ≤ 2 ha are classified as ponds and waterbodies with an area ≥ 2 ha are classified as lakes. Table **TS2-3** should be used to inform decisions on lake type.

2.11 Waterbody types are usually defined based on nutrient concentrations. This is unhelpful if the objective is to assess the current state of a waterbody against its natural state. It also makes assessment of natural lake type difficult to judge in the field. For the biodiversity metric 3.1 we have adopted the pragmatic approach used for tier 1 (geology) of the Water Framework Directive (WFD) Lakes Typology[27].

2.12 Alkalinity is less frequently altered by anthropogenic impacts but is related to natural lake nutrient concentration. Alkalinity is the basis of the WFD typology along with peat and marl. Nearly all lakes above 2 ha have been assigned to one of the WFD types using either measured or modelled data. These types can be found on the lakes portal[28], by searching for a lake then clicking on the typology tab and looking at the 'geology type'.

2.13 The relationship between WFD waterbody types and various other typologies can be found in Table **TS2-3** below. Temporary water bodies and aquifer fed naturally fluctuating water bodies are not captured in the WFD typology but are still included within biodiversity metric 3.1.

[27] See: UKTAG (2004) *UK Technical Advisory Group on the Water Framework Directive Guidance on Typology for Lakes for the UK (Draft)* [online]. Available from: Title: (wfduk.org)
[28] See: UK CENTRE FOR ECOLOGY AND HYDROLOGY (UKCEH) (No date) *UK Lakes Portal* [online]. Available from: UK Lakes Portal (ceh.ac.uk)

TABLE TS2-3: Comparability of waterbody habitat descriptions and typologies

Biodiversity metric 3.1 lake types	WFD alkalinity/ colour types	Priority Habitat types	Habitats Directive Annex 1 types	JNCC lake vegetation communities
High alkalinity lakes	High alkalinity	Naturally eutrophic standing waters > 2 ha	Natural eutrophic lakes H3150	**E, G, I,** H
Marl lakes	Marl	Mesotrophic lakes > 2 ha	Hard oligo-mesotrophic with *Chara* spp. H3140	B, C2, **E**, **F,** G, **I**
Moderate alkalinity lakes	Moderate alkalinity		Oligotrophic to mesotrophic standing waters H3130	**D, E,**
Low alkalinity lakes	Low alkalinity	Oligotrophic and dystrophic lakes > 2 ha		B, **C1, C2**,
			Oligotrophic standing waters of sandy plains H3110	
Peat lakes	Peat		Natural dystrophic lakes and ponds H3160	**A**, B, C1, C2
Reservoirs	WFD typology does not include			
Aquifer fed naturally fluctuating water bodies	WFD typology does not include hydrological regime	Aquifer fed naturally fluctuating water bodies	In England the known examples of this type are also eutrophic lakes H3150.	**B, I**
Temporary lakes, ponds and pools	WFD typology does not include hydrological regime		*Mediterranean temporary ponds H3170	
Ponds (Priority Habitat)	WFD typology does not refer specifically to ponds	Ponds < 2 ha	Ponds and pools can represent any of the above Annex 1 habitat types	
Ponds (non-Priority Habitat)		Ponds < 2 ha		

*Note: Habitat types denoted * are a subset of the Priority Habitat and/or WFD type in the same row of the table. The closest correspondence between Joint Nature Conservation Committee (JNCC) vegetation types and WFD alkalinity/colour types is shown in* **bold** *in the 'JNCC vegetation types' column. Equally important representatives or regional variants may occur in the other groups listed.*

Habitat distinctiveness

2.14 In biodiversity metric 3.1 habitats are assigned to distinctiveness bands based on the following criteria:

- Total amount of remaining habitat in England (its rarity)
- Proportion of habitat protected in SSSI: Where less is protected in SSSIs, it is considered of higher distinctiveness
- UK Priority Habitat Status[29]: Priority Habitats are classed as High or Very High distinctiveness
- European Red List Categories

2.15 The **Priority Habitat Inventory (England)**[30] was the primary source of data to inform the criteria 'Total amount of habitat remaining' and '% of habitat protected in SSSIs' (Data extracted Spring 2019). In some instances, further information from Natural England habitat specialists was included, where these were the more certain and commonly used figures for those habitats.

2.16 The **European Red List** (see Box TS2-1) has been used to highlight how rare or endangered a habitat is at a European and consequently international scale. Consideration was given to those habitats that are much rarer and more important in an England or UK context (i.e. they are much more common on the continent) and those which are very rare elsewhere but reasonably common in England. Adjustments were then made to reflect the current state of knowledge when applying this criterion.

2.17 Using different criteria for different habitat groups makes direct comparison difficult, mainly due to complications of different habitat classification systems (UK Priority Habitats (PH))[32] do not translate directly to Habitats Directive Annex 1 Habitats and the European Red List of Habitats uses the EUNIS habitat classification[31] which does not match completely to the other two). They all have strengths and weaknesses and were developed to address certain issues. Therefore, those habitats used in other classifications have been matched to the most appropriate biodiversity metric 3.1 habitat type and used as the basis for the allocation of distinctiveness bands The inter-relationships between the various classification systems are shown within tables TS2-6 to TS2-17.

2.18 Having compiled this data, it was used to assign a distinctiveness category to each of the biodiversity metric 3.1 habitats. Table TS2-4 shows the categories and the thresholds used for assignment. Tables TS2-6 to TS2-17 show the available supporting data for each habitat type. For ease of reference the tables group habitats by distinctiveness. For high distinctiveness habitats they are split further by broad habitat type.

2.19 Most natural **intertidal habitats** are of sufficient importance for nature conservation that they require a distinctiveness category of at least 'high'. Other natural intertidal habitats, like those on bedrock including peat & clay exposures and chalk, are, due to

[29] See: JNCC (No date) *UK BAP Priority Habitats* [online]. Available from: UK BAP Priority Habitats | JNCC - Adviser to Government on Nature Conservation
[30] See: NATURAL ENGLAND (2021). *Priority Habitat Inventory (England)* [online]. Available from: Priority Habitat Inventory (England) - data.gov.uk
[31] See: EEA (2019) *EUNIS habitat type hierarchical view* [online]. Available from: EUNIS -EUNIS habitat type hierarchical view (europa.eu)

their unique origin, lack of resilience and limited recoverability from impacts, given a distinctiveness score of Very High.

2.20 For **freshwater bodies** an alternative red list approach has been used (see Table TS2-5). The major reason for this is that the extent or area of freshwater bodies is not often reduced but quality (chemical, biotic etc.) can have been fundamentally changed and have effectively degraded the habitat. The most common reason for lake degradation is eutrophication, a process that can result in a lake no longer being able to support the species that would naturally be associated with it. The European red list criteria C and D consider degradation in biotic and abiotic quality, and these were the criteria primarily driving the red list categories assigned to standing water habitats at the European level and reported in table (TS2-4) below. Article 17 reporting in 2019 has shown that degradation is much more widespread in some standing water habitats in England than has been reported for Europe as a whole. Consequently, the IUCN criteria have been applied specifically to data for England. The extent of degraded habitat in relation to the IUCN categories is shown below. Whilst this suggests a worryingly large amount (up to 50%) of the habitat may be degraded and it remains of least concern, application of the IUCN criteria to the England only data does allow an equal comparison with other habitats that have been evaluated through the same scheme.

BOX TS2-1: European Red List of Habitats Criteria

The European Red List of Habitats provides an overview of the risk of collapse (degree of endangerment) of marine, terrestrial and freshwater habitats in the European Union (EU28) and adjacent regions (EU28+), based on a consistent set of criteria and categories and detailed data and expertise from involved countries.

- The Red list for European Habitats category quoted is based on the European Union (EU28) list
- The Red list corresponds to the EUNIS Classification Code and Description

The red list uses;

- Criterion A. Reduction in quantity (area or distribution)
- Criterion B. Restricted geographic distribution
- Criterion C. Reduction in abiotic quality
- Criterion D. Reduction in biotic quality
- Criterion E. Quantitative analysis of probability of collapse

Two of the criteria assess spatial symptoms of habitat collapse in terms of declining spatial distribution (Criterion A) and restricted spatial distribution (Criterion B).

Two criteria assess functional symptoms (degradation of ecological processes) in terms of physical or abiotic degradation (Criterion C) and disruption of biotic processes and interactions (Criterion D). Given that it often is difficult or impossible to separate biotic and abiotic degradation processes, Criteria C and D have been combined in this assessment (Criterion C/D), with the option to separate where data were available.

To understand whether a habitat meets the criteria for Critical, Endangered or Vulnerable see tables in Appendix 2 of (Bland et al., 2017)[32].

Table TS2-4: Habitat distinctiveness bands and criteria thresholds

Distinctiveness Band	Criteria Threshold
Very High Distinctiveness	• Small amount of remaining habitat with a high proportion unprotected by designation • Endangered or Critical European red List habitats
High Distinctiveness	• Remaining Priority Habitats not in Very High distinctiveness band & other red list habitats
Medium Distinctiveness	• Non-Priority Habitats with significant wildlife benefit plus one Priority Habitat (Arable field Margins)
Low Distinctiveness	• Agricultural and Urban land use of lower biodiversity value
Very Low Distinctiveness	• Urban – artificial structures which are un-vegetated, sealed surfaces or built linear features of Very Low distinctiveness.

[32] BLAND, L.M. ET AL. (eds.) (2017) *Guidelines for the application of IUCN Red List of Ecosystems Categories and Criteria, Version 1.1.* IUCN, Switzerland. Available from: 2016-010-v1.1.pdf (iucn.org)

Table TS2-5: Alternative red list criteria for freshwater habitats.

European Red List Categories	Adapted alternative to RED LIST for criteria C & D used in this assessment
Critical (CR) When the evidence indicates that it meets any of the criteria A to E for **Critical** (i.e. for quantity 80% loss in past 50 years) and is then considered to be at an extremely high risk of collapse.	Only relevant if impact is thought to be extremely severe
Endangered (EN) When the evidence indicates that it meets any of the criteria A to E for **Endangered** (i.e. for quantity 50% loss in past 50 yrs.) and considered to be at a very high risk of collapse.	≥90% of the extent of the habitat degraded
Vulnerable (VU) When the best available evidence indicates that it meets any of the criteria A to E for **Vulnerable** (i.e. for quantity 30% loss in last 50 yrs.) and is then considered to be at a high risk of collapse.	<90 - ≥70% of the extent of the habitat degraded
Near Threatened (NT) A habitat is Near Threatened when it has been evaluated against the criteria but does not qualify for CR, EN or VU, but the status and trends are close to qualifying for a threatened category.	<70 - ≥50% of the extent of the habitat degraded
Least Concern (LC) A habitat is of Least Concern when it has been evaluated against the criteria and does not qualify for CR, EN, VU or NT. Widely distributed and relatively un-degraded habitats are included in this category.	< 50% of the extent of the habitat degraded

Table TS2-6: Very High distinctiveness habitats
Key: BOLD text= Priority Habitat; Green text= Annex 1 Habitat; Blue text= EUNIS code

Habitat Description (Priority Habitat in BOLD)	**Total amount of habitat remaining**	**% of habitat Protected in SSSI**	**European Red List Categories (EUNIS code)**	**Notes**
Grassland - Lowland dry acid grassland	14,881 Ha (PHI) 20, 142 Ha (UK BAP)	60%	Vulnerable (E1.7) Endangered (E1.9a) Endangered (E3.52) Least Concern (E5.31)	
Grassland - Lowland meadows	18,008 Ha (PHI) 7, 282 Ha (UK BAP)	52.6%	Vulnerable (E2.1) Vulnerable (E2.2) Endangered (E3.41)	Floodplain meadows (E3.41) considered the most endangered
Grassland - Upland hay meadows	1,928 Ha (PHI) 870 Ha (UK BAP)	39.1%	Vulnerable (E2.3)	
Heathland and shrub - Mountain heaths and willow scrub	1,408 Ha	79%		
(H4060) Alpine and subalpine heaths	1,232 Ha	100%	Least Concern (F2.2a)	
(H4080) Mountain willow scrub	0.5 Ha	100%	Near Threatened (F2.1)	
Littoral sediment - Littoral seagrass - on peat, clay or chalk	Unknown			Irreplaceable due to substrate
Lakes - Aquifer fed naturally fluctuating water bodies	20 Ha	100%	Unknown	Figures for this habitat type are intrinsically difficult due to the fluctuating water levels. Only known in Breckland.

Habitat Description (Priority Habitat in BOLD)	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)	Notes
Sparsely vegetated land - Calaminarian grasslands (H6130) Grasslands on soils rich in heavy metals	152 Ha	88%	Endangered (E1.B)	
Sparsely vegetated land - Limestone pavements (H8240)	2,481 Ha	84.7%	Least Concern (H3.5a)	Outcrops of limestone, comprising flat slabs of rock.
Rivers and streams – Priority Habitat River BAP Priority Descriptions (2011)[33]				
Rivers - Headwater streams				A watercourse within 2.5km of its furthest source as marked with a blue line on Ordnance Survey (OS) maps at a scale of 1:50,000.
Rivers - Chalk rivers			EUNIS code C2.19 C2.26 C2.3	There are approximately 35 chalk rivers and major tributaries ranging from 20km to 90km in length. They are located in south and east England – from the Frome in Dorset to the Hull in Humberside.
Rivers - Abundance of water-crowfoots *Includes* *(H3260) Rivers with floating vegetation*				

[33] JNCC (2011) *UK Biodiversity Action Plan Priority Habitat Descriptions. Rivers* [online]. Available from: Rivers (UK BAP Priority Habitat description) (jncc.gov.uk)

Habitat Description (Priority Habitat in BOLD)	**Total amount of habitat remaining**	**% of habitat Protected in SSSI**	**European Red List Categories (EUNIS code)**	**Notes**
Rivers - Active shingle rivers				
Littoral sediment - Features of littoral rock - on peat, clay or chalk	Unknown	Unknown		Irreplaceable due to substrate
Rocky shore - High energy littoral rock - on peat, clay or chalk	Unknown	Unknown		Irreplaceable due to substrate
Rocky shore - Low energy littoral rock - on peat, clay or chalk	Unknown	Unknown		Irreplaceable due to substrate
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	Unknown	Unknown		Irreplaceable due to substrate
Wetland - Blanket bog *(H7130) Blanket Bog*	230,114 Ha	68.8%	Near Threatened (D1.2)	
Wetland - Depressions on Peat substrates (H7150)	Unknown	Unknown	Vulnerable (D2.2a) Partial only Vulnerable (D2.2c) Partial only Vulnerable (D2.2a) Partial only	
Wetland – Fens (both upland & lowland types)	34,634 ha	65%		
(H7210) Calcium-rich fen dominated by great fen sedge			Endangered (D4.1b) Vulnerable (D4.1c)	
(H7220) Hard-water springs depositing lime;			(Partial) Endangered (D4.1a)	
(H7230) Alkaline Fens Calcium-rich springwater-fed fens;			Endangered (D4.1a) Vulnerable (D4.1c)	
(H7240) Alpine pioneer flush/mire formations.			Vulnerable (D4.2)	
Poor fen (D2.2a)			Vulnerable (D2.2a)	

Habitat Description (Priority Habitat in BOLD)	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)	Notes
Intermediate fen and soft-water spring mire (D2.2c)			Vulnerable (D2.2c)	
Wetland - Lowland raised bog	9,090 Ha (PHI) 17,411 ha (Annex 1, 2018)	90% 47%	Endangered (D1.1)	
(H7110) Active raised bogs	3,727 ha			
(H7120) Degraded raised bog	13,684 ha			
Wetland – Oceanic valley mire[34] **(D2.1)**			Vulnerable (D2.1)	
Wetland - Purple moor grass and rush pastures (H6410) Molinia meadows on calcareous, peaty or clayey-silt-laden soils	7,117 Ha (PHI) 21, 544 Ha (UK BAP)	30%	Endangered (E3.5)	Developed through past historical management practices often from other Fen and Mire habitats over long time scales.
Wetland - Transition mires[35] **and quaking bogs (H7140)**			Vulnerable (D2.2c) Vulnerable (D2.3a)	

Table TS2-7: Urban habitats classified as being of High Distinctiveness

Habitat Description (Priority Habitat in BOLD)	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories	Notes
Urban - Open mosaic habitats on previously developed land	Unknown	Very Little	Not Listed	

[34] No clearly related Annex I type. A small amount may match 7150, and locally the habitat may have been assigned under Annex I type 7110 (Active raised bog). EEA (No date) D2.1 *Oceanic valley bog.* [online]. Available from: D2.1 Oceanic valley bog | Reports on European Red List of habitats (europa.eu)

[35] The term 'transition mire' relates to vegetation that in floristic composition and general ecological characteristics is transitional between Acid bog and (7230) Alkaline fens, in which the surface conditions range from markedly acidic to slightly base-rich.

Table TS2-8: Grassland and Heathland (inc. upland and scree) habitats classified as being of High Distinctiveness

Habitat Description (Priority Habitat in BOLD)	**Total amount of habitat remaining**	**% of habitat Protected in SSSI**	**European Red List Categories** (EUNIS code)	**Notes**
Grassland - Traditional orchards	**14,853 Ha**	**0.3%**	**Not Listed**	
Grassland – Floodplain wetland mosaic/Coastal floodplain grazing marsh	218,283 Ha	14.7%		CFGM is often improved grassland. Little of PH quality, hence small amount designated, sits on degraded fen and coastal habitats that need restoration. Species rich sward would classify it as Lowland Meadow.
Grassland - Lowland calcareous grassland	57,189 Ha (PHI) 38, 687 Ha (BAP)	65.8%	Vulnerable (E1.2a)	
Grassland - Upland calcareous grassland	11,242 Ha (PHI)	81.4%	Vulnerable (E1.26)	
Grassland - Tall herb communities *(H6430) Tall herb communities*	<1,000ha (Not Known)	Expected High		
Heathland and shrub - Lowland heathland	50,987 Ha (PHI)	78%	Vulnerable	
(H4010) Wet heathland with cross-leaved heath; lowland	17,667 Ha		Vulnerable (F4.1)	
(H4020) Wet heathland with Dorset heath and cross-leaved heath	2,661 Ha		Vulnerable (F4.1)	
(H4030) Dry heaths; lowland	26,139 Ha		Vulnerable (F4.2)	

(H4040) Dry coastal heaths with Cornish heath	2,212 Ha		Vulnerable (F4.2)	
Heathland and shrub - Sea buckthorn scrub (Annex 1) (H2160) Dunes with *Hippophae rhamnoides* (Sea Buckthorn)	Unknown	100%		East coast sand dunes
Heathland and shrub - Upland heathland	276,885 Ha			
(H4010) Wet heathland with cross-leaved heath; upland	40,436 ha	c.95%?		
(H4030) Dry heaths; upland	236,449	72%		
Sparsely vegetated land - Inland rock outcrop and scree habitats				
(H8110) Acidic scree	3,250 Ha	c.80%	Least Concern (B2.5)	
(H8120) Base-rich scree	400 Ha	c.95%	Least Concern (B2.6c)	
(H8210) Plants in crevices in base-rich rocks	300 Ha	c.95%		
(H8220) Plants in crevices in acid rocks	1,250 Ha	c.80%		
(H6430) Tall herb communities	Unknown	Unknown		

Table TS2-9: Wetland habitats classified as being of High Distinctiveness

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)	Notes
Wetland - Reedbeds	2,956 Ha	79.8%	Not listed	An early successional Fen community that is classified separately in the UK Priority Habitat classification.

Table TS2-10: Freshwater Lake and pond habitats classified as being of High Distinctiveness

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)	Alternative to red list using condition %	Notes
Low alkalinity lakes (H3110)	3,985 Ha	40%	Least Concern (C1.1b)	Vulnerable	Low alkalinity and moderate alkalinity lakes were considered together for article 17 reporting and only 28% of surveyed lakes by area were in 'good' condition. For a subset of lowland low alkalinity lakes (H3110) less than 1% were in 'good' condition'; they clearly are Vulnerable.
Moderate alkalinity lakes (H3130)	5,700 Ha	32%	Least Concern (C1.1b)	Vulnerable	Low alkalinity and moderate alkalinity lakes were considered together for article 17 reporting and only 28% of surveyed lakes by area were in 'good' condition. Doing better than some other lake groups.
High alkalinity lakes (H3150)	20,351 Ha	14%	Near Threatened (C1.2b)	Endangered	Article 17 reporting found only 3% of surveyed lake area was in 'good' condition for these lakes; they clearly are Endangered.

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)	Alternative to red list using condition %	Notes
Marl lakes (H3140)	584 Ha	21.7%	Vulnerable (C1.2a)	Near Threatened	Article 17 reporting found only 48% of surveyed lake area was in 'good' condition for these lakes they are doing better than other lake types but still require considerable improvement.
Peat lakes (H3160)	1,275 Ha	5%	Near Threatened (C1.4)	Endangered	Article 17 reporting found less than 1% of surveyed lake area was in 'good' condition for these lakes; they clearly are endangered.
Ponds	4159 Ha	1.5%		Vulnerable	It is not possible to differentiate between priority and non-priority habitat ponds. Pond numbers are still much lower than at their peak and there is evidence that their quality continues to decline. Estimates suggest approx. 20% of ponds may be in good condition.
Aquifer fed naturally fluctuating water bodies	20 Ha	100%	Near Threatened (C1.2b)	Unknown	Figures for this habitat type are intrinsically difficult due to the fluctuating water levels. Only known in Breckland.

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)	Alternative to red list using condition %	Notes
Temporary lakes, ponds and pools		100%			Figures for this habitat type are intrinsically difficult due to their temporary nature. The Annex 1 type Mediterranean temporary ponds are only found on the Lizard in Cornwall and are within the protected site series and are in favourable condition.

Table TS2-11: River habitats classified as being of High distinctiveness

Habitat Description UK BAP Priority Habitats (2011)	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)
Rivers – Other Rivers and streams	Unknown		

Table TS2-12: Coastal habitats classified as being of High distinctiveness

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories
Sparsely vegetated land - Coastal vegetated shingle	4,103 Ha	90.6%	Least Concern (B2.1a)
(H1210) Annual vegetation of drift lines	-	-	
(H1220) Perennial vegetation on coastal shingle	-	-	
Sparsely vegetated land - Coastal sand dunes	10,018 Ha	82.2%	Near Threatened (B1.3a)
(H2110) Embryonic shifting dunes	-	-	
(H2120) Shifting dunes with marram	-	-	
(H2130) Dune grassland	-	-	Vulnerable (B1.4a)

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories
(H2140) Lime-deficient dune heathland with crowberry	-	-	
(H2150) Coastal dune heathland	-	-	Least Concern (B1.5b)
(H2190) Humid dune slacks	-	-	Vulnerable (B1.8a)
(H2550) Dunes with juniper thickets	-	-	
Sparsely vegetated land - Maritime cliff and slopes	14,123 Ha	67%	Least Concern (B3.1a))
(H1230) Vegetated sea cliffs	-	-	
B3.4c Atlantic and Baltic soft sea cliff	-	-	Least Concern (B3.4c)

Table TS2-13: Intertidal habitats classified as being of High distinctiveness

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories (EUNIS code)
Saltmarshes and saline reedbeds	-	-	
Coastal lagoons	-	-	
Littoral mud	-	-	Endangered
Littoral muddy sand	-	-	Data Deficient
Littoral mixed sediments	-	-	Data Deficient
Features of littoral sediment	-	-	Data Deficient
Littoral seagrass	-	-	Near Threatened
Littoral biogenic reefs	-	-	Near Threatened (Sabellaria reef), Endangered (Mussel beds)
Low energy littoral rock	-	-	Data Deficient
Moderate energy littoral rock	-	-	Data Deficient
High energy littoral rock	-	-	Least Concern
Features of littoral rock	-	-	Least Concern

Table TS2-14: Woodland habitats classified as being of High distinctiveness
Note: Biodiversity metric 3.1 does not differentiate between ancient woodland (either determined from inventory or field survey of indicator species) and other non-ancient forms of the same woodland habitat type. These figures for extent of remaining habitat and % protected in SSSIs are inclusive of ancient woodland as these are the most commonly referred to data on extent.

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories	Notes
Deciduous woodland	735,055 Ha	13%		17% of Ancient woodland in SSSI
Woodland and forest - Upland mixed ashwoods	-	-	Near Threatened (G1.A)	
(H9180) Lime-maple woodlands of rocky slopes	-	-		
Woodland and forest - Upland oakwood	-	-	Near Threatened (G1.A) Vulnerable (G1.8)	
(H91A0) Western acidic oak woodland	-	-		
Woodland and forest - Wet woodland	-	-		
(H91E0) Alder woodland on floodplains	-	-	Near Threatened (G1.1)	
(H91D0) Bog woodland	-	-	Vulnerable (G1.5)	
Woodland and forest - Lowland beech and yew woodland	-	-	Near Threatened (G1.62, G1.6a & b)	
(H9120) Beech forests on acid soils.	-	-		
(H9130) Beech forests on neutral to rich soils.	-	-		
(H91J0) Yew-dominated woodland.	-	-	Least Concern (G3.9a)	
(H5110) Natural box scrub	-	-		
Woodland and forest - Lowland mixed deciduous woodland	-	-		
Woodland and forest - Native pine woodlands	-	-	Near Threatened (G3.41 & G3.4a)	
(H91C0) Caledonian forest	-	-		

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories	Notes
Woodland and forest - Upland birchwoods	-	-		
Woodland – Wood pasture & parkland	Not known			Britain is thought to have a large proportion of total European resource. However, there are no reliable statistics on the overall extent or rate of loss/ degradation

Table TS2-15: Medium distinctiveness habitats

(Non-Priority Habitats with wildlife benefit plus a single Priority Habitat)

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories	Notes
Cropland - Arable field margins	N/A	Very little	Not listed	
Grassland - Other neutral grassland	N/A	Very little	Not listed	
Grassland - Other lowland acid grassland	N/A	Very little	Not listed	
Grassland - Upland acid grassland	N/A	Some	Not listed	
Heathland and shrub - Blackthorn scrub	N/A	Very little	Not listed	
Heathland and shrub - Bramble scrub	N/A	Very little	Not listed	

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories	Notes
Heathland and shrub - Gorse scrub	N/A	Some	Not listed	Some types of Gorse scrub (Western Gorse & Dwarf Gorse, *Ulex gallii & Ulex minor*) are a large component of areas of Upland Dry Heath & Lowland Heath will be recorded as such.
Heathland and shrub - Hawthorn scrub	N/A	Some	Not listed	
Heathland and shrub - Hazel scrub	N/A	Very little	Not listed	The majority will be a Woodland PH type above.
Heathland and shrub - Mixed scrub	N/A	Very little	Not listed	
Intertidal sediment - Littoral sand	N/A			
Intertidal sediment - Littoral coarse sediment	N/A			
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)	N/A			
Lakes - Reservoirs	N/A		Not listed	Whilst some reservoirs are in SSSIs, there is no national inventory which would allow us to produce these figures.
Rivers and streams - Ditches	N/A		Not listed	Whilst some ditches are in SSSIs, there is no national inventory which would allow us to produce these figures.

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories	Notes
Rivers and streams – Canals	N/A	Very little	Not listed	Whilst some canals are in SSSIs, there is no national inventory which would allow us to produce these figures.
Sparsely vegetated land - Other inland rock and scree (non-Priority Habitat)	N/A	Very little	Not listed	
Urban - Biodiverse green roof	N/A	None	Not listed	Wildlife rich examples.
Urban - Cemeteries and churchyards	N/A	Some	Not listed	
Woodland and forest - Felled	N/A	Very little	Not listed	
Woodland and forest - Other Scot's pine woodland	N/A	Very little	Not listed	
Woodland and forest - Other woodland; broadleaved	N/A	Very little	Not listed	
Woodland and forest - Other woodland; mixed	N/A	Very little	Not listed	

Table TS2-16: Low distinctiveness habitats
(Agricultural and Urban land of low biodiversity interest)

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List	Notes
Cropland - Cereal crops	N/A	None	Not listed	
Cropland - Horticulture	N/A	None	Not listed	
Cropland - Intensive orchards	N/A	None	Not listed	
Cropland - Non-cereal crops	N/A	None	Not listed	
Cropland - Temporary grass and clover leys	N/A	None	Not listed	
Grassland - Modified grassland	N/A	Very little	Not listed	
Grassland - Bracken	N/A	Very little	Not listed	
Heathland and shrub - Rhododendron scrub	N/A	None	Not listed	
Heathland and Shrub – Sea Buckthorn scrub (other)	N/A	Very little	Not listed	
Intertidal - Artificial features of hard structures	N/A			
Intertidal - Artificial hard structures	N/A			
Intertidal sediment - Artificial littoral biogenic reefs	N/A			
Intertidal sediment - Artificial littoral coarse sediment	N/A			
Intertidal sediment - Artificial littoral mixed sediments	N/A			
Intertidal sediment - Artificial littoral mud	N/A			
Intertidal sediment - Artificial littoral muddy sand	N/A			
Intertidal sediment - Artificial littoral sand	N/A			

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List	Notes
Intertidal sediment - Artificial littoral seagrass	N/A			
Lakes - Ornamental lake or pond	N/A	None	Not listed	
Rivers and streams - Culvert	N/A	None	Not listed	
Sparsely vegetated land – Ruderal/ephemeral	N/A	None	Not listed	
Urban - Allotments	N/A	None	Not listed	
Urban - Bioswale	N/A	None	Not listed	When wildlife rich could be Medium Distinctiveness.
Urban - Façade-bound green wall	N/A	None	Not listed	
Urban - Ground based green wall	N/A	None	Not listed	
Urban - Ground level planters	N/A	None	Not listed	
Urban - Introduced shrub	N/A	None	Not listed	
Urban - Rain garden	N/A	None	Not listed	
Urban – Actively worked sand pit quarry or open cast mine	N/A	None	Not listed	This classification relates to non-vegetated working areas only. Mineral extraction sites can support a wide range of habitats, including ponds, heathland, grassland, sparsely vegetated land, bare ground, flushes and springs etc. These should be classified separately.
Urban – Urban trees	N/A	None	Not listed	
Urban - Sustainable urban drainage feature	N/A	None	Not listed	

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List	Notes
Urban - Vacant/derelict land/ bare ground	N/A	None	Not listed	
Urban - Vegetated garden	N/A	None	Not listed	
Woodland and forest - Other coniferous woodland	N/A	None	Not listed	

Table TS2-17: Very Low Distinctiveness habitats

Habitat Description	Total amount of habitat remaining	% of habitat Protected in SSSI	European Red List Categories
Urban - Artificial vegetated, unsealed surface	N/A	None	No
Urban – Developed land: sealed surface	N/A	None	No
Urban - Built linear features	N/A	None	No
Urban - Un-vegetated garden	N/A	None	No

Condition

2.21 Part 1 of this document sets out how to carry out a condition assessment for use in biodiversity metric 3.1.

2.22 The approach used is similar to that used for Common Standards Monitoring (CSM): key indicators are used to make an overall assessment of condition. However, the approach is simpler than under CSM and is designed to be undertaken with a single visit to a site, using visual indicators of likely wider habitat condition, whilst still being objective and measurable.

2.23 The biodiversity metric 3.1 condition assessment looks at a broader set of attributes that cover both the best and poorest examples of each habitat. Thus, a high distinctiveness habitat could be assessed as being in poor condition because of the presence of invasive non-native species, signs of damage or other impacts.

Time to target condition of the habitats

2.24 Many factors influence how long a habitat takes to go from the point of creation or restoration to the desired end point condition. Factors are often site dependent but can include soil nutrient status, soil types and pH, site preparation, climate and the neighbouring habitats and species matrix available to colonise the new or restored habitat. The timeframe is also resource dependent. With sufficient time and money most habitats can be recreated more rapidly but allowing a more gradual process may be more beneficial to wildlife in the longer term.

2.25 For the purposes of biodiversity metric 3.1 **average** time estimates have been used, accepting that there will be variation from this central estimation. For example, some sites will take longer, where conditions are more nutrient enriched or higher altitude or north facing. Estimates of the average time to target condition were largely expert driven and build upon the considerations that shaped judgements of the difficulty to create or restore a habitat. They were additionally informed by field experience, industry case studies and a body of practical experience. The time to target condition estimates are shown in the Tables in Part 3.

Habitat creation and restoration risks

2.26 Biodiversity metric 3.1 recognises and attempts to account for the uncertainty and risk of failure inherent in any action to create or improve the biodiversity unit value of a habitat by the application of risk multipliers.

2.27 The development of habitat restoration techniques in applied ecology has grown significantly in recent decades. Habitat types that were considered very difficult to restore are now better understood and knowledge and experience of successful restoration techniques is increasing.

2.28 Nevertheless, it is important to recognise that it is impossible to exactly replicate habitat losses because of the unique physical and ecological features of every site. Restoration is nearly always more effective on well-established semi-natural habitats, even when in a severely degraded state, than on sites without the historical habitat underpinning. The difficulty of habitat creation and restoration/enhancement are treated as a risk in biodiversity metric 3.1. There are four possible risk categories for

the difficulty creation or restoration/enhancement of each habitat (Low, Medium, High and Very High). Here we:

- Set out factors that potentially influence the risk (degree of difficulty) in creating or restoring each habitat.
- Provide a table of the creation and restoration difficulty categories applying to each habitat.

Factors influencing the difficulty of habitat creation and restoration/enhancement

Hydrological requirements

2.29 All terrestrial habitats are influenced by water availability and where the water table is found at different times of the year. Some habitats are tolerant of variable water levels, while others need exact conditions. Wetland habitats, unsurprisingly, need water at surface with little drying out in the summer months.

2.30 Intertidal habitats are highly dynamic, subject to daily movement of water of varying salinities. Some intertidal habitats (and their associated species) are tolerant of variable water levels with longer periods of tidal exposure, whilst some require more stable conditions with shorter periods of exposure. In saltmarsh habitats, for example, elevation and slope lead to variable inundation and exposure times, with creeks and channels providing areas with longer phases of submersion.

2.31 When habitats have specific hydrological requirements, the difficulty of creation or restoration increases. In addition, the ability to initiate restoration of suitable hydrological requirements may depend on complex engineering projects

Salinity regime (Intertidal habitats only)

2.32 Intertidal habitats extend from estuaries to open coast. All intertidal habitats are able to withstand some degree of changes in salinity, however, species distribution can be largely dominated by salinity ranges. For example, estuaries and coastal lagoons are primarily controlled by salinity and topographical features (McLusky, 1989[36]). The modification of salinity by changes to the hydrophysical regime is likely to lead to changes in species' distributions, especially the degree of landward penetration of marine organisms as well as the species composition of coastal lagoons. Habitats, and their associated species, that occur in a range of salinities will be easier to recreate or restore.

Elevation and aspect (Intertidal habitats only)

2.33 Elevation is indirectly related to duration and depth of tidal inundation and usually directly related with energy levels and drainage. Inclination and aspect can play important roles in determining the communities present through species' tolerance to the degree of exposure to sunlight and drying conditions in a habitat. For example, on rocky shores, overhangs and crevices shaded from the sun will create damper conditions compared to those directly exposed to the sun. The more restricted the requirement of a habitat is, in terms of the elevation and aspect, the more difficult it will be to restore or create.

[36] MCLUSKY, D. S. (1989) *The Estuarine Ecosystem*. 2nd edition. Blackie and Son Ltd, UK.

Seed source or biological material requirements

2.34 The availability of plant material/organisms that comprise a habitat will restrict the success of restoration/creation and the speed at which it occurs. Where areas do not need intervention and natural succession can occur these will be the easiest to restore. Where initial seeding is needed and then little follow up care, a medium score is assigned.

2.35 When complex seed germination and establishment techniques are required, we have given this the highest difficulty score. Many habitats such as mussel beds, oyster reefs, or seagrass beds require a supply of propagules (seeds/spats/larvae) to exist.

2.36 Habitats that do not need human intervention and where natural succession can occur once the right conditions are in place, will have greater chance of successful restoration and are given a low score. Where initial seeding or maintenance of larval supply is needed, a 'medium' score is applied. A high score is applied to those habitats that will require complex seeding and establishment techniques.

Future constraints

2.37 Several future pressures will limit the success of a restoration or creation project for sensitive habitats. Current evidence predicts a temperature change of > 2^{o}C in all emissions scenarios. Species have already been responding to the 1^{o}C increase we have experienced in the last 40 years. According to the UN's Intergovernmental Panel on Climate Change[37], it is predicted that warming will bring a sea level rise of up to one metre by 2100. Moreover, it is virtually certain that global mean sea level rise will continue to rise beyond 2100 to a level that will depend on future emissions. This parameter highlights how these, and other future constraints, will affect a new or restored habitat's success. Intertidal and coastal habitats will be particularly sensitive to sea level rise and other factors associated with climate change (temperature, acidification, wave energy, oxygen availability etc.).

Low soil nutrient status (Terrestrial habitats only)

2.38 The nutrient levels in soils or water determine the productivity of plants and how dominant particular species become in a habitat. In Britain there are few extremes of pH and climate, so soil fertility will strongly determine a plant's productivity. Consequently, soil nutrients, along with soil depth and hydrology, will be a main driver in community composition of the habitat being created.

2.39 The low nutrient status of a site's soils, (e.g. nitrogen and phosphate), is a key factor in achieving plant species diversity and potential to create some habitats. All Priority Habitat types require a low nutrient soil status to prosper, the plants within them would be outcompeted by faster growing more competitive plants in higher nutrient soils. These competitive plants are generally less important for wildlife. If a species-rich plant community is the desired objective, the nutrient levels must be low as this

[37] See: CHURCH, J.A. AND CLARK, P.U. ET AL. (2013) Sea Level Change. *In: Climate Change 2013: The Physical Science Basis.* Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. [online] Cambridge University Press, Cambridge, United Kingdom and New York. Available from: WG1AR5_Chapter13_FINAL.pdf (ipcc.ch)

will constrain competitive species. Phosphorus is the key nutrient controlling this, nitrogen being less critical provided phosphorus levels are low.

Trophic status conditions (Aquatic habitats only)

2.40 Overall fertility, or trophic status, is used to describe bodies of water based on the level of biological activity they sustain.

- **Oligotrophic:** have the lowest level of biological productivity and are nutrient poor;
- **Mesotrophic**: a moderate level of biological activity, with moderate nutrient input;
- **Eutrophic:** the highest level of biological activity, with high levels of nutrient input.

2.41 The categories above are used to describe the overall state of fertility or “trophic status” of aquatic ecosystems. Nutrients such as nitrogen and phosphorus tend to be limiting resources in standing water bodies, intertidal habitats and for many wetland habitats, so increased concentrations tend to result in increased algal and plant growth, favouring the more competitive/vigorous plants.

2.42 The restoration or creation of low nutrient habitats (i.e. those that are mesotrophic or oligotrophic) will be more complex, due to existing issues of water quality and nutrient enrichment from anthropogenic sources.

Water quality needs

2.43 Water quality affects sites and the quality of any habitat within them. When water quality is poor species composition and diversity can be compromised, since many habitats and species are reliant on a good water quality, others might be more tolerant and can exist in areas of poorer water quality.

2.44 A direct relationship exists between good water quality and greater biodiversity.

Ongoing management requirements

2.45 When little or no ongoing management is required, it is expected that habitat restoration and creation will be easier. Some habitats will need regular management, through activities such as hay cutting and grazing etc, and this is likely to relate to the complexity of the habitat. Ongoing management practices allow the continued existence of high quality, biodiverse habitats on the site.

Categorising difficulty of habitat creation and restoration

2.46 Using the factors described above and with expert input and reference to Entec (2011)[38], Entec/Amec (2013)[39], Amec (2016)[40], each terrestrial habitat was assessed to determine the difficulty of creating or restoring/enhancing it.

2.47 For intertidal habitats a scoring matrix was used (Table TS2-18). In most cases a score of 1-3 was allocated for each attribute, however, it is considered impossible to recreate a small number of habitats, so they have been assigned a difficulty of creation of 'N/A'. For others a Very High difficulty of creation and a score of 4 has been assigned.

2.48 All intertidal habitats are understood to be very sensitive to climate change and associated pressures (such as sea-level rise, acidification, increased wave energy, etc.), and require good water quality, so neither of these two parameters (Future constraints incl. Climate Change or Water Quality Needs) are included in the calculation of the final difficulty score. This is not to dismiss the importance of those parameters but to allow for an assessment that includes a degree of variability, so that the remaining factors have greater significance in the overall score. The factors not included in the final calculation should still be considered in project specific net gain conversations.

2.49 The evaluation of difficulty of creation and restoration for each intertidal habitat is set out in table TS2-19. The minimum score for difficulty of habitat creation or restoration is 7 and the maximum is 21.

2.50 It is important to note that the scoring habitat creation takes a precautionary line, as the creation of habitats in the intertidal is largely untested. So, for habitat creation, a score of between 7 and 11 will be low difficulty, 12 to 15 medium difficulty and 16 to 21 of high difficulty. Technical difficulty of creation is attributed a value 'N/A' where it is considered to be impossible or has never been achieved. This results in an automatic overall difficultly of creation of 'Very High'. For, habitat restoration/enhancement an overall score between 7 and 11 will be considered low difficulty, a score between 12 and 16 will be considered medium difficulty, and a score between 17 and 21 will be considered high difficulty.

Using these results as a guide, and with additional expert input, each of the habitats within biodiversity metric 3.1 was assigned a difficulty category of very high, high, medium or low for difficulty of creation and for restoration/enhancement. For area habitats these are presented in Table TS3-1, for Hedgerows and Lines of trees in Table TS3-5 and for Rivers and streams in table TS3-9.

[38] ENTEC (2011) *Developing tools to evaluate the consequences for biodiversity of options for coastal zone adaptation to climate change - WC0726* [online]. Available from: Defra, UK - Science Search

[39] ENTEC/AMEC (2013) *Ease of Habitat Transformation/ Restoration* Report for Natural England

[40] AMEC (2016) *Developing Datasets for Biodiversity 2020* [online]. Available from: NECR214_edition_1.pdf

Table TS2-18: Scores applied to attributes for habitat creation and restoration / enhancement for intertidal habitats

SCORE	Low	Medium	High	Very high
	1	2	3	4
Technical difficulty of Enhancement/Restoration or Creation	Abandonment (1)	Limited preparation (2)	Minor engineering (3)	Significant engineering (4)
Hydrological Requirements	Basic (1)	Moderate (2)	Complex (3)	N/A
Salinity Regime	Wide range (1)	Medium range (2)	Specific (3)	
Elevation / aspect	Wide range (1)	Medium range (2)	Specific (3)	
Seed Source / biological material requirements	Natural succession (1)	Initial seeding (2)	Extensive planting and seeding (3)	N/A
Trophic Status Conditions	Eutrophic (Abundant nutrients available) (1)	Mesotrophic (Medium amounts of nutrients available) (2)	Oligotrophic (Very little nutrients available) (3)	N/A
Ongoing Management Requirements	Low intensity (1)	Ongoing management requirements (2)	High intensity (3)	N/A

Table TS2-19: Difficulty of creating and restoring intertidal habitats

Habitat	Difficulty category: Creation	Overall score: Creation	Difficulty category: Enhance	Overall score: Enhance	Technical difficulty: Creation	Technical difficulty: Enhance	Hydrological Requirements	Salinity regime	Elevation/ aspect	Biological material requirements	Trophic Status	Ongoing management
Rocky shore - High energy littoral rock	High	16	Med	14	Significant Engineering (4)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Rocky shore - High energy littoral rock - on peat, clay or chalk	Very High	12	Med	14	N/A	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Rocky shore - Moderate energy littoral rock	High	16	Med	14	Significant Engineering (4)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	Very High	*12*	Med	14	N/A	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Rocky shore - Low energy littoral rock	High	16	Med	14	Significant Engineering (4)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Rocky shore - Low energy littoral rock - on peat, clay or chalk	Very High	12	Med	12	N/A	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)

Habitat	Difficulty category: Creation	Overall score: Creation	Difficulty category: Enhance	Overall score: Enhance	Technical difficulty: Creation	Technical difficulty: Enhance	Hydrological Requirements	Salinity regime	Elevation/ aspect	Biological material requirements	Trophic Status	Ongoing management
Rocky shore - Features of littoral rock	High	16	Med	15	Minor Engineering (3)	Limited Preparation (2)	Moderate (2)	Specific (3)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Rocky shore - Features of littoral rock - on peat, clay or chalk	Very High	*13*	Med	15	N/A	Limited Preparation (2)	Moderate (2)	Specific (3)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Intertidal sediment - Littoral coarse sediment	Med	15	Med	14	Minor Engineering (3)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Intertidal sediment - Littoral sand and muddy sand	Med	15	Med	14	Minor Engineering (3)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Intertidal sediment - Littoral sand	Med	15	Med	14	Minor Engineering (3)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Intertidal sediment - Muddy sand	High	17	Med	15	Significant Engineering (4)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	High intensity (3)
Intertidal sediment - Littoral mud	High	16	Med	14	Significant Engineering (4)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Eutrophic (Abundant Nutrients available) (1)	High intensity (3)

Habitat	Difficulty category: Creation	Overall score: Creation	Difficulty category: Enhance	Overall score: Enhance	Technical difficulty: Creation	Technical difficulty: Enhance	Hydrological Requirements	Salinity regime	Elevation/ aspect	Biological material requirements	Trophic Status	Ongoing management
Intertidal sediment - Littoral mixed sediments	High	17	Med	15	Significant Engineering (4)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	High intensity (3)
Coastal Saltmarsh - saltmarshes and saline reedbeds	High	17	Med	15	Significant Engineering (4)	Limited Preparation (2)	Complex (3)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Intertidal sediment - Littoral seagrass	High	20	High	19	Minor Engineering (3)	Limited Preparation (2)	Complex (3)	Specific (3)	Specific (3)	Extensive planting and seeding (3)	Oligotrophic (Very Little nutrients available) (3)	Ongoing Management Requirements (2)
Intertidal sediment - Littoral seagrass - on peat, clay or chalk	Very High	*17*	High	19	N/A	Limited Preparation (2)	Complex (3)	Specific (3)	Specific (3)	Extensive planting and seeding (3)	Oligotrophic (Very Little nutrients available) (3)	Ongoing Management Requirements (2)
Intertidal sediment - Littoral biogenic reefs	Med	15	Med	15	Limited Preparation (2)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Initial seeding (2)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Intertidal sediment - Littoral biogenic reefs - on peat, clay or chalk	Very High	*15*	Med	15	N/A	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Initial seeding (2)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)
Intertidal sediment - Features of littoral sediment	High	16	Med	14	Significant Engineering (4)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Ongoing Management Requirements (2)

Habitat	Difficulty category: Creation	Overall score: Creation	Difficulty category: Enhance	Overall score: Enhance	Technical difficulty: Creation	Technical difficulty: Enhance	Hydrological Requirements	Salinity regime	Elevation/ aspect	Biological material requirements	Trophic Status	Ongoing management
Intertidal artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	Med	13	Med	12	Minor Engineering (3)	Limited Preparation (2)	Moderate (2)	Wide Range (1)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Low intensity (1)
Intertidal artificial hard structures	Med	13	Med	12	Minor Engineering (3)	Limited Preparation (2)	Moderate (2)	Wide Range (1)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Low intensity (1)
Intertidal artificial features of hard structures	Med	14	Med	13	Minor Engineering (3)	Limited Preparation (2)	Moderate (2)	Medium Range (2)	Specific (3)	Natural Succession (1)	Mesotrophic (Medium amounts of nutrient is available) (2)	Low intensity (1)
Coastal lagoons - Coastal lagoons	Med	13	Med	13	Minor Engineering (3)	Minor Engineering (3)	Moderate (2)	Medium Range (2)	Medium Range (2)	Natural Succession (1)	Natural Succession (1)	Ongoing Management Requirements (2)

Part 3 – Biodiversity metric 3.1 data tables

3.1. These tables give the standard values used for **quality** attributes and **risks** in biodiversity metric 3.1. For advice on how you assign values for quality and risks that are assessed on a habitat patch basis please see the User Guide and Part 1 of this Technical Supplement for advice on assessing habitat condition.

3.2. Two versions of each table are provided: one giving categorical values and one the numerical values used in the calculations.

Area habitat data tables

TABLE TS3-1: Area habitat data values (categorical values) for Distinctiveness, Difficulty of creation and enhancement and Time to target condition for habitat creation (Excludes enhancement and restoration time to target condition values - see Table TS3-2)

Key: '-' indicates that an option is not possible or permitted within the metric calculation

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment	N/A - Other
Coastal lagoons - Coastal lagoons	High	Medium	Medium	10	8	5	3	1	-	-
Coastal saltmarsh - Saltmarshes and saline reedbeds	High	High	Medium	15	10	7	3	1	-	-
Cropland - Arable field margins cultivated annually	Medium	Low	Low	-	-	-	-	-	1	-
Cropland - Arable field margins game bird mix	Medium	Low	Low	-	-	-	-	-	1	-
Cropland - Arable field margins pollen & nectar	Medium	Low	Low	-	-	-	-	-	1	-
Cropland - Arable field margins tussocky	Medium	Low	Low	-	-	-	-	-	1	-
Cropland - Cereal crops	Low	Low	Low	-	-	-	-	-	1	-
Cropland - Cereal crops winter stubble	Low	Low	Low	-	-	-	-	-	1	-
Cropland - Horticulture	Low	Low	Low	-	-	-	-	-	1	-
Cropland - Intensive orchards	Low	Low	Low	-	-	-	-	-	1	-
Cropland - Non-cereal crops	Low	Low	Low	-	-	-	-	-	1	-
Cropland - Temporary grass and clover leys	Low	Low	Low	-	-	-	-	-	1	-
Grassland - Traditional orchards	High	Low	Medium	30	25	20	10	5	-	-
Grassland - Bracken	Low	Low	Low	-	-	-	-	1	-	-
Grassland - Floodplain wetland mosaic (CFGM)	High	High	Medium	20	15	10	8	5	-	-
Grassland - Lowland calcareous grassland	High	High	High	20	15	10	8	5	-	-
Grassland - Lowland dry acid grassland	Very High	High	High	30+	25	20	15	10	-	-
Grassland - Lowland meadows	Very High	High	Medium	15	12	10	8	5	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment	N/A - Other
Grassland - Modified grassland	Low	Low	Low	7	5	4	2	1	1	-
Grassland - Other lowland acid grassland	Medium	Low	Low	15	12	10	5	1	-	-
Grassland - Other neutral grassland	Medium	Low	Low	10	7	5	3	2	-	-
Grassland - Tall herb communities (H6430)	High	High	High	30	25	20	15	10	-	-
Grassland - Upland acid grassland	Medium	Low	Low	15	12	10	5	1	-	-
Grassland - Upland calcareous grassland	High	High	High	25	20	15	12	10	-	-
Grassland - Upland hay meadows	Very High	High	Medium	20	18	15	12	10	-	-
Heathland and shrub - Blackthorn scrub	Medium	Low	Low	10	7	5	3	1	-	-
Heathland and shrub - Bramble scrub	Medium	Low	Low	-	-	-	-	1	-	-
Heathland and shrub - Gorse scrub	Medium	Low	Low	10	7	5	3	1	-	-
Heathland and shrub - Hawthorn scrub	Medium	Low	Low	10	7	5	3	1	-	-
Heathland and shrub - Hazel scrub	Medium	Low	Low	15	12	10	7	5	-	-
Heathland and shrub - Lowland heathland	High	High	Medium	30+	25	20	15	10	-	-
Heathland and shrub - Mixed scrub	Medium	Low	Low	10	7	5	3	1	-	-
Heathland and shrub - Mountain heaths and willow scrub	Very High	High	High	30+	30+	25	23	15	-	-
Heathland and shrub - Rhododendron scrub	Low	Low	Low	-	-	-	-	1	-	-
Heathland and shrub - Sea buckthorn scrub (Annex 1)	High	Medium	Low	10	7	5	3	1	-	-
Heathland and shrub - Sea buckthorn scrub (other)	Low	Low	Low	-	-	-	-	_	1	-
Heathland and shrub - Upland Heathland	High	Medium	Medium	30	25	20	15	10	-	-
Lakes - Aquifer fed naturally fluctuating water bodies	Very High	Very High	High	30	20	15	10	1	-	-
Lakes - High alkalinity lakes	High	High	High	30	20	10	7	5	-	-
Lakes - Low alkalinity lakes	High	High	Medium	30	20	10	7	5	-	-
Lakes - Marl lakes	High	High	High	30	20	10	7	5	-	-
Lakes - Moderate alkalinity lakes	High	High	High	30	20	10	7	5	-	-
Lakes - Ornamental lake or pond	Low	Low	High	5	4	3	2	1	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment	N/A - Other
Lakes - Peat lakes	High	High	High	30	20	10	7	5	-	-
Lakes - Ponds (Priority Habitat)	High	Medium	Medium	5	4	3	2	1	-	-
Lakes - Ponds (non- Priority Habitat)	Medium	Low	Medium	5	4	3	2	1	-	-
Lakes - Reservoirs	Medium	Medium	Medium	10	7	5	3	1	-	-
Lakes - Temporary lakes, ponds and pools	High	Medium	Medium	5	4	3	2	1	-	-
Sparsely vegetated land - Calaminarian grasslands	Very High	Very High	Medium	10	7	5	3	2	-	-
Sparsely vegetated land - Coastal sand dunes	High	Very High	Medium	20	15	10	7	5	-	-
Sparsely vegetated land - Coastal vegetated shingle	High	Very High	Medium	20	15	10	7	5	-	-
Sparsely vegetated land - Ruderal/Ephemeral	Low	Low	Medium	5	4	3	2	1	-	-
Sparsely vegetated land - Inland rock outcrop and scree habitats	High	High	Low	30+	25	20	15	10	-	-
Sparsely vegetated land - Limestone pavement	Very High	Very High	Medium	30+	30+	30+	30+	30+	-	-
Sparsely vegetated land - Maritime cliff and slopes	High	High	Medium	20	15	10	7	5	-	-
Sparsely vegetated land - Other inland rock and scree	Medium	Medium	Medium	20	15	10	7	5	-	-
Urban - Allotments	Low	Low	Low	1	1	1	1	1	-	-
Urban - Artificial unvegetated, unsealed surface	Very Low	Low	Low	-	-	-	-	-	-	0
Urban - Bioswale	Low	Medium	Low	3	2	1	1	1	-	-
Urban - Biodiverse green roof	Medium	Medium	Low	10	8	5	3	1	-	-
Urban - Built linear features	Very Low	Low	Low	-	-	-	-	-	-	0
Urban - Cemeteries and churchyards	Medium	Medium	Low	20	17	15	12	10	-	-
Urban - Developed land; sealed surface	Very Low	Low	Medium	-	-	-	-	-	-	0
Urban - Facade-bound green wall	Low	Medium	Medium	5	4	3	2	1	-	-
Urban - Ground based green wall	Low	Medium	Medium	5	4	3	2	1	-	-
Urban - Ground level planters	Low	Low	Low	-	-	-	-	1	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment	N/A - Other
Urban - Intensive green roof	Low	Low	Low	5	4	3	2	1	-	-
Urban - Introduced shrub	Low	Low	Low	-	-	-	-	1	-	-
Urban - Open mosaic habitats on previously developed land	High	Medium	Medium	10	7	4	2	0	-	-
Urban – Other green roof	Low	Low	Low	-	-	-	-	-	1	-
Urban - Rain garden	Low	Low	Low	5	4	3	2	1	-	-
Urban – Actively worked sand pit quarry or open cast mine	Low	Medium	Medium	-	-	-	-	1	-	-
Urban - Urban tree	Medium	Low	Low	30+	30+	27	15	10	-	-
Urban - Sustainable urban drainage feature	Low	Medium	Medium	5	4	3	2	1	-	-
Urban - Un-vegetated garden	Very Low	Low	Low	-	-	-	-	-	-	0
Urban - Vacant/derelict land/ bare ground	Low	Low	Low	5	4	3	2	1	-	-
Urban - Vegetated garden	Low	Low	Low	-	-	-	-	-	1	-
Wetland - Blanket bog	Very High	Very High	High	30+	30+	30+	30+	30+	-	-
Wetland - Depressions on peat substrates (H7150)	Very High	Very High	High	30+	30+	30	25	15	-	-
Wetland - Fens (upland and lowland)	Very High	High	High	30	25	20	15	10	-	-
Wetland - Lowland raised bog	Very High	Very High	High	30+	30+	30	20	15	-	-
Wetland - Oceanic valley mire [1] (D2.1)	Very High	Very High	High	30+	30+	30	20	15	-	-
Wetland - Purple moor grass and rush pastures	Very High	High	High	30	25	20	15	10	-	-
Wetland - Reedbeds	High	Medium	Medium	12	10	7	5	3	-	-
Wetland - Transition mires and quaking bogs (H7140)	Very High	Very High	High	30+	30+	30	25	15	-	-
Woodland and forest - Felled	High	Low	Low	-	-	-	-	-	-	-
Woodland and forest - Lowland beech and yew woodland	High	High	High	30+	30+	30+	25	10	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment	N/A - Other
Woodland and forest - Lowland mixed deciduous woodland	High	High	High	30+	30+	30+	25	10	-	-
Woodland and forest - Native pine woodlands	High	High	High	30+	30+	30+	25	10	-	-
Woodland and forest - Other coniferous woodland	Low	Low	Low	30+	30+	30	10	5	-	-
Woodland and forest - Other Scot's pine woodland	Medium	Medium	Medium	30+	30+	30+	25	10	-	-
Woodland and forest - Other woodland; broadleaved	Medium	Low	Low	30+	25	15	7	5	-	-
Woodland and forest - Other woodland; mixed	Medium	Low	Low	30+	30+	30	10	5	-	-
Woodland and forest - Upland birchwoods	High	Medium	Medium	30+	30	25	20	10	-	-
Woodland and forest - Upland mixed ashwoods	High	High	High	30+	30+	30+	25	10	-	-
Woodland and forest - Upland oakwood	High	High	High	30+	30+	30+	25	10	-	-
Woodland and forest - Wet woodland	High	Medium	Medium	30+	30	15	10	5	-	-
Woodland and forest - Wood-pasture and parkland	Very High	Very High	High	30+	30+	30+	25	10	-	-
Rocky shore - High energy littoral rock	High	High	Medium	10	7	4	2	1	-	-
Rocky shore - High energy littoral rock - on peat, clay or chalk	Very High	Very High	Medium	30+	30+	30+	30+	30+	-	-
Rocky shore - Moderate energy littoral rock	High	High	Medium	13	8	4	2	1	-	-
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	Very High	Very High	Medium	30+	30+	30+	30+	30+	-	-
Rocky shore - Low energy littoral rock	High	High	Medium	15	10	5	1	1	-	-
Rocky shore - Low energy littoral rock - on peat, clay or chalk	Very High	Very High	Medium	30+	30+	30+	30+	30+	-	-
Rocky shore - Features of littoral rock	High	High	Medium	13	8	4	2	1	-	-
Rocky shore - Features of littoral rock - on peat, clay or chalk	Very High	Very High	Medium	30+	30+	30+	30+	30+	-	-
Intertidal sediment - Littoral coarse sediment	Medium	Medium	Medium	3	2	1	1	1	-	-
Intertidal sediment - Littoral mud	High	High	Medium	6	4	3	2	1	-	-
Intertidal sediment - Littoral mixed sediments	High	High	Medium	5	4	3	2	1	-	-
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	Low	High	Medium	15	10	7	3	1	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment	N/A - Other
Intertidal sediment - Littoral seagrass	High	High	High	20	15	10	5	2	-	-
Intertidal sediment - Littoral seagrass on peat, clay or chalk	Very High	Very High	High	30+	30+	30+	30+	30+	-	-
Intertidal sediment - Littoral biogenic reefs - Mussels	High	High	Medium	15	10	5	3	3	-	-
Intertidal sediment - Littoral biogenic reefs - Sabellaria	High	High	Medium	15	10	5	3	3	-	-
Intertidal sediment - Features of littoral sediment	High	High	Medium	10	7	5	3	3	-	-
Intertidal sediment - Artificial littoral coarse sediment	Low	Medium	Medium	3	2	1	1	1	-	-
Intertidal sediment - Artificial littoral mud	Low	High	Medium	6	4	3	2	1	-	-
Intertidal sediment - Artificial littoral sand	Low	Medium	Medium	4	2	1	1	1	-	-
Intertidal sediment - Artificial littoral muddy sand	Low	High	Medium	5	4	3	2	1	-	-
Intertidal sediment - Artificial littoral mixed sediments	Low	High	Medium	5	4	3	2	1	-	-
Intertidal sediment - Artificial littoral seagrass	Low	High	High	20	15	10	5	2	-	-
Intertidal sediment - Artificial littoral biogenic reefs	Low	High	Medium	15	10	5	3	3	-	-
Intertidal sediment - Littoral sand	Medium	Medium	Medium	4	2	1	1	1	-	-
Intertidal sediment - Littoral muddy sand	High	High	Medium	5	4	3	2	1	-	-
Intertidal hard structures - Artificial hard structures	Low	Medium	Medium	15	10	5	2	1	-	-
Intertidal hard structures - Artificial features of hard structures	Low	Medium	Medium	13	8	4	2	1	-	-
Intertidal hard structures - Artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	Medium	Medium	Medium	13	8	4	2	1	-	-

TABLE TS3-2: Area Habitat data values (categorical values) for time to target condition for enhancement and restoration

Key: '-' indicates that an option is not possible or permitted within the metric calculation

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Cropland - Arable field margins cultivated annually	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Cropland - Arable field margins game bird mix	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Cropland - Arable field margins pollen & nectar	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Cropland - Arable field margins tussocky	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Cropland - Cereal crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cropland - Cereal crops winter stubble	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Cropland - Horticulture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cropland - Intensive orchards	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cropland - Non-cereal crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cropland - Temporary grass and clover leys	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grassland - Traditional orchards	5	15	20	25	10	15	20	5	10	5	-	-	5	10	20	25	30
Grassland - Bracken	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Grassland - Floodplain wetland mosaic (CFGM)	8	10	12	15	2	4	7	2	4	3	-	-	5	8	10	12	15
Grassland - Lowland calcareous grassland	5	10	15	20	5	10	15	5	10	5	-	-	10	15	20	25	30
Grassland - Lowland dry acid grassland	5	15	20	30+	8	15	25	10	20	10	-	-	10	15	20	25	30+
Grassland - Lowland meadows	4	8	11	15	4	8	11	4	8	4	-	-	5	8	10	12	15
Grassland - Modified grassland	5	10	12	15	8	10	12	8	10	8	-	1	1	5	10	12	15

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Grassland - Other lowland acid grassland	5	10	12	15	8	10	12	8	10	8	-	-	1	5	10	12	15
Grassland - Other neutral grassland	5	10	12	15	8	10	12	8	10	8	-	-	1	5	10	12	15
Grassland - Tall herb communities (H6430)	10	20	25	30	10	10	15	5	10	5	-	-	10	15	20	25	30
Grassland - Upland acid grassland	5	10	12	15	8	10	12	8	10	8	-	-	1	5	10	12	15
Grassland - Upland calcareous grassland	10	15	18	20	10	15	18	10	10	10	-	-	10	12	15	20	25
Grassland - Upland hay meadows	10	15	18	20	10	15	18	10	15	10	-	-	10	12	15	18	20
Heathland and shrub - Blackthorn scrub	1	5	7	10	3	5	3	2	3	2	-	-	1	3	5	7	10
Heathland and shrub - Bramble scrub	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Heathland and shrub - Gorse scrub	1	5	7	10	3	5	7	2	3	2	-	-	1	3	5	7	10
Heathland and shrub - Hawthorn scrub	1	5	7	10	3	5	7	2	3	2	-	-	1	3	5	7	10
Heathland and shrub - Hazel scrub	5	7	12	15	5	8	12	5	7	5	-	-	5	7	10	12	15
Heathland and shrub - Lowland heathland	5	10	15	25	5	10	20	5	15	10	-	-	10	15	20	25	30+
Heathland and shrub - Mixed scrub	1	5	7	10	3	5	7	2	3	2	-	-	1	3	5	7	10
Heathland and shrub - Mountain heaths and willow scrub	20	30+	30+	30+	20	30+	30+	20	30+	20	-	-	15	23	25	30+	30+
Heathland and shrub - Rhododendron scrub	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Heathland and shrub - Sea buckthorn scrub (Annex 1)	5	7	10	12	5	7	10	5	7	5	-	-	5	7	10	12	15
Heathland and shrub - Sea buckthorn scrub (other)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heathland and shrub - Upland heathland	10	20	30	30+	10	20	30	10	20	10	-	-	10	15	20	25	30

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Lakes - Aquifer fed naturally fluctuating water bodies	5	10	15	30	5	15	25	5	20	5	-	-	1	10	15	20	30
Lakes - High alkalinity lakes	5	10	15	30	5	15	25	10	20	10	-	-	2	3	5	7	10
Lakes - Low alkalinity lakes	5	10	15	20	5	10	15	5	10	5	-	-	5	10	15	20	30
Lakes - Marl lakes	5	10	15	30	5	15	25	10	20	10	-	-	5	7	10	15	20
Lakes - Moderate alkalinity lakes	5	10	15	30	5	15	25	10	20	10	-	-	5	7	10	15	20
Lakes - Peat lakes	5	10	15	30	5	15	25	10	20	10	-	-	5	10	15	20	30
Lakes - Ponds (Priority Habitat)	2	4	6	8	2	4	6	2	4	2	-	-	2	3	5	7	10
Lakes - Ponds (Non- Priority Habitat)	2	4	6	8	2	4	6	2	4	2	-	-	1	2	3	4	5
Lakes - Reservoirs	5	10	15	30	5	15	25	10	20	10	-	-	1	3	5	7	10
Lakes - Temporary lakes, ponds and pools	2	4	6	8	2	4	6	2	4	2	-	-	2	3	5	7	10
Sparsely vegetated land - Calaminarian grasslands	1	3	5	8	1	4	7	2	5	3	-	-	2	3	5	7	10
Sparsely vegetated land - Coastal sand dunes	5	8	15	20	5	10	18	7	12	8	-	-	5	7	10	15	20
Sparsely vegetated land - Coastal vegetated shingle	5	8	15	20	5	10	18	7	12	8	-	-	5	7	10	15	20
Sparsely vegetated land - Ruderal/Ephemeral	1	2	3	5	1	2	3	1	2	1	-	-	-	-	-	-	-
Sparsely vegetated land - Inland rock outcrop and scree habitats	10	15	25	30+	20	25	27	15	20	15	-	-	10	15	20	25	30+
Sparsely vegetated land - Limestone pavement	5	10	15	20	5	10	15	5	10	5	-	-	30+	30+	30+	30+	30+
Sparsely vegetated land - Maritime cliff and slopes	5	8	15	20	5	10	18	7	12	8	-	-	10	15	20	25	30+

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Sparsely vegetated land - Other inland rock and scree	5	10	15	20	5	10	15	5	10	5	-	-	3	5	10	15	20
Urban - Allotments	1	1	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1
Lakes - Ornamental lake or pond	2	4	6	8	2	4	6	2	4	2	-	-	1	2	3	4	5
Urban - Artificial unvegetated, unsealed surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Bioswale	1	2	2	3	1	3	3	2	2	2	-	-	1	1	1	2	3
Urban - Biodiverse green roof	3	5	8	10	3	8	8	3	5	2	-	-	1	3	5	8	10
Urban - Built linear features	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Cemeteries and churchyards	5	10	15	20	10	15	20	10	15	5	-	-	10	12	15	17	20
Urban - Developed land; sealed surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Facade-bound green wall	1	2	3	5	1	2	3	1	2	1	-	-	1	2	3	4	5
Urban - Ground based green wall	1	2	3	5	1	2	3	1	2	1	-	-	1	2	3	4	5
Urban - Ground level planters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Intensive green roof	1	2	3	5	1	2	3	1	2	1	-	-	1	2	3	4	5
Urban - Introduced shrub	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Open mosaic habitats on previously developed land	2	4	7	10	2	5	8	3	4	3	-	-	0	2	4	7	10
Urban – Other green roof	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Rain garden	1	1	1	1	1	1	1	1	1	1	-	-	1	1	1	1	1
Urban – Actively worked sand pit quarry or open cast mine	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Urban - Urban tree	8	16	24	30+	8	16	24	8	16	8	-	-	-	-	-	-	-
Urban - Sustainable urban drainage feature	1	2	3	5	1	2	3	1	2	1	-	-	1	2	3	4	5

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Urban - Un-vegetated garden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Vacant/derelict land/ bare ground	1	1	1	1	1	1	1	1	1	1	-	-	1	1	1	1	1
Urban - Vegetated garden	1	2	3	5	1	2	3	1	2	1	-	-	1	2	3	4	5
Wetland - Blanket bog	10	20	30+	30	10	30+	30+	30	30+	30	-	-	15	25	30	30+	30+
Wetland - Depressions on Peat substrates (H7150)	10	20	25	30	10	20	25	10	20	10	-	-	15	25	30	30+	30+
Wetland - Fens (upland and lowland)	10	12	15	18	10	12	15	10	12	10	-	-	10	12	15	25	30
Wetland - Lowland raised bog	10	20	25	30	10	20	20	10	15	10	-	-	15	20	30	30+	30+
Wetland - Oceanic valley mire [1] (D2.1)	10	20	25	30	10	20	20	10	15	10	-	-	15	20	30	30+	30+
Wetland - Purple moor grass and rush pastures	10	10	15	20	10	15	20	10	15	10	-	-	10	12	15	17	20
Wetland - Reedbeds	5	7	10	12	5	7	10	5	7	5	-	-	5	7	10	12	15
Wetland - Transition mires and quaking bogs (H7140)	10	20	25	30	10	20	20	10	15	10	-	-	15	25	30	30+	30+
Woodland and forest - Felled	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woodland and forest - Lowland beech and yew woodland	25	30+	30+	30+	30+	30+	30+	30+	30+	30+	-	-	10	25	30+	30+	30+
Woodland and forest - Lowland mixed deciduous woodland	10	20	25	30+	10	20	25	10	20	10	-	-	10	25	30+	30+	30+
Woodland and forest - Native pine woodlands	10	15	20	30+	15	20	25	10	15	10	-	-	25	30	30+	30+	30+
Woodland and forest - Other coniferous woodland	5	25	30+	30+	20	15	25	5	7	10	-	-	-	-	-	-	-
Woodland and forest - Other Scot's pine woodland	10	15	20	30+	15	20	25	10	15	10	-	-	20	25	30+	30+	30+

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Woodland and forest - Other woodland; broadleaved	5	10	15	20	5	10	15	5	10	5	-	-	5	10	15	20	25
Woodland and forest - Other woodland; mixed	5	10	15	20	5	10	15	5	10	5	-	-	5	10	15	20	25
Woodland and forest - Upland birchwoods	10	15	20	30+	15	20	25	10	15	10	-	-	10	20	25	30	30+
Woodland and forest - Upland mixed ashwoods	10	15	20	30+	15	20	25	10	15	10	-	-	10	25	30+	30+	30+
Woodland and forest - Upland oakwood	25	30+	30+	30+	30+	30+	30+	30+	30+	30+	-	-	10	25	30+	30+	30+
Woodland and forest - Wet woodland	10	10	15	30+	15	20	25	10	15	10	-	-	10	20	25	30	30+
Woodland and forest - Wood-pasture and parkland	25	30+	30+	30+	30+	30+	30+	30+	30+	30+	-	-	10	25	30+	30+	30+
Coastal lagoons - Coastal lagoons	1	4	8	12	3	7	11	4	8	4	-	-	-	-	-	-	-
Rocky shore - High energy littoral rock	2	4	6	10	2	4	8	2	6	4	-	-	-	-	-	-	-
Rocky shore - High energy littoral rock - on peat, clay or chalk	2	4	6	10	2	4	8	2	6	4	-	-	-	-	-	-	-
Rocky shore - Moderate energy littoral rock	2	4	6	11	2	4	9	2	7	5	-	-	-	-	-	-	-
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	2	4	6	11	2	4	9	2	7	5	-	-	-	-	-	-	-
Rocky shore - Low energy littoral rock	2	4	6	12	2	4	10	2	8	6	-	-	-	-	-	-	-
Rocky shore - Low energy littoral rock - on peat, clay or chalk	2	4	6	12	2	4	10	2	8	6	-	-	-	-	-	-	-
Rocky shore - Features of littoral rock	2	4	6	11	2	4	9	2	7	5	-	-	-	-	-	-	-
Rocky shore - Features of littoral rock - on peat, clay or chalk	2	4	6	11	2	4	9	2	7	5	-	-	-	-	-	-	-
Intertidal sediment - Littoral coarse sediment	1	2	3	4	1	2	3	1	2	1	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Intertidal sediment - Littoral mud	2	4	6	8	2	4	6	2	4	2	-	-	-	-	-	-	-
Intertidal sediment - Littoral mixed sediments	1	2	3	4	1	2	3	1	2	1	-	-	-	-	-	-	-
Coastal saltmarsh - Saltmarshes and saline reedbeds	2	6	10	20	4	8	18	4	14	10	-	-	-	-	-	-	-
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	2	6	10	20	4	8	18	4	14	10	-	-	-	-	-	-	-
Intertidal sediment - Littoral seagrass	3	13	23	0	10	20	30	10	20	10	-	-	-	-	-	-	-
Intertidal sediment - Littoral seagrass on peat, clay or chalk	2	4	7	0	2	3	8	3	6	3	-	-	-	-	-	-	-
Intertidal sediment - Littoral biogenic reefs - Mussels	2	4	7	10	2	3	8	3	6	3	-	-	-	-	-	-	-
Intertidal sediment - Littoral biogenic reefs - Sabellaria	2	4	7	10	2	3	8	3	6	3	-	-	-	-	-	-	-
Intertidal sediment - Features of littoral sediment	1	2	3	5	1	2	4	1	3	2	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral coarse sediment	1	2	3	4	1	2	3	1	2	1	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral mud	2	4	6	8	2	4	6	2	4	2	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral sand	2	3	4	6	1	2	4	1	3	2	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral muddy sand	2	4	6	8	2	4	6	2	4	2	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral mixed sediments	1	2	3	4	1	2	3	1	2	1	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral seagrass	3	13	23	30+	10	20	30	10	20	10	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral biogenic reefs	2	4	7	10	2	3	8	3	6	3	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Intertidal sediment - Littoral sand	2	3	4	6	1	2	4	1	3	2	-	-	-	-	-	-	-
Intertidal sediment - Littoral muddy sand	2	4	6	8	2	4	6	2	4	2	-	-	-	-	-	-	-
Intertidal hard structures - Artificial hard structures	6	4	10	2	2	8	6	2	12	4	-	-	-	-	-	-	-
Intertidal hard structures - Artificial features of hard structures	5	4	9	2	2	7	6	2	11	4	-	-	-	-	-	-	-
Intertidal hard structures - Artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	5	4	9	2	2	7	6	2	11	4	-	-	-	-	-	-	-

TABLE TS3-3: Area habitat data values (numerical values) used in Calculation Tool) for Distinctiveness, Difficulty of creation and enhancement and Time to target condition for habitat creation. (Excludes enhancement and restoration time to target condition values - see Table TS3-4)

Key: '-' indicates that an option is not possible or permitted within the metric calculation

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment N/A	N/A - Other
Coastal lagoons - Coastal lagoons	6	0.67	0.67	0.7	0.752	0.837	0.899	0.965	-	-
Coastal saltmarsh - Saltmarshes and saline reedbeds	6	0.33	0.67	0.586	0.7	0.779	0.899	0.965	-	-
Cropland - Arable field margins cultivated annually	4	1	1	-	-	-	-	-	0.965	-
Cropland - Arable field margins game bird mix	4	1	1	-	-	-	-	-	0.965	-
Cropland - Arable field margins pollen & nectar	4	1	1	-	-	-	-	-	0.965	-
Cropland - Arable field margins tussocky	4	1	1	-	-	-	-	-	0.965	-
Cropland - Cereal crops	2	1	1	-	-	-	-	-	0.965	-
Cropland - Cereal crops winter stubble	2	1	1	-	-	-	-	-	0.965	-
Cropland - Horticulture	2	1	1	-	-	-	-	-	0.965	-
Cropland - Intensive orchards	2	1	1	-	-	-	-	-	0.965	-
Cropland - Non-cereal crops	2	1	1	-	-	-	-	-	0.965	-
Cropland - Temporary grass and clover leys	2	1	1	-	-	-	-	-	0.965	-
Grassland - Traditional orchards	6	1	0.67	0.343	0.41	0.49	0.7	0.837	-	-
Grassland - Bracken	2	1	1	-	-	-	-	0.965	-	-
Grassland - Floodplain wetland mosaic (CFGM)	6	0.33	0.67	0.49	0.586	0.7	0.752	0.837	-	-
Grassland - Lowland calcareous grassland	6	0.33	0.33	0.49	0.586	0.7	0.752	0.837	-	-
Grassland - Lowland dry acid grassland	8	0.33	0.33	0.32	0.41	0.49	0.586	0.7	-	-
Grassland - Lowland meadows	8	0.33	0.67	0.586	0.652	0.7	0.752	0.837	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment N/A	N/A - Other
Grassland - Modified grassland	2	1	1	0.779	0.837	0.867	0.931	0.965	0.965	-
Grassland - Other lowland acid grassland	4	1	1	0.586	0.652	0.7	0.837	0.965	-	-
Grassland - Other neutral grassland	4	1	1	0.7	0.779	0.837	0.899	0.931	-	-
Grassland - Tall herb communities (H6430)	6	0.33	0.33	0.343	0.41	0.49	0.586	0.7	-	-
Grassland - Upland acid grassland	4	1	1	0.586	0.652	0.7	0.837	0.965	-	-
Grassland - Upland calcareous grassland	6	0.33	0.33	0.41	0.49	0.586	0.652	0.7	-	-
Grassland - Upland hay meadows	8	0.33	0.67	0.49	0.527	0.586	0.652	0.7	-	-
Heathland and shrub - Blackthorn scrub	4	1	1	0.7	0.779	0.837	0.899	0.965	-	-
Heathland and shrub - Bramble scrub	4	1	1	-	-	-	-	0.965	-	-
Heathland and shrub - Gorse scrub	4	1	1	0.7	0.779	0.837	0.899	0.965	-	-
Heathland and shrub - Hawthorn scrub	4	1	1	0.7	0.779	0.837	0.899	0.965	-	-
Heathland and shrub - Hazel scrub	4	1	1	0.586	0.652	0.7	0.779	0.837	-	-
Heathland and shrub - lowland heathland	6	0.33	0.67	0.32	0.41	0.49	0.586	0.7	-	-
Heathland and shrub - Mixed scrub	4	1	1	0.7	0.779	0.837	0.899	0.965	-	-
Heathland and shrub - Mountain heaths and willow scrub	8	0.33	0.33	0.32	0.32	0.41	0.441	0.586	-	-
Heathland and shrub - Rhododendron scrub	2	1	1	-	-	-	-	-	0.965	-
Heathland and shrub - Sea buckthorn scrub (Annex 1)	6	0.67	1	0.7	0.779	0.837	0.899	0.965	-	-
Heathland and shrub - Sea buckthorn scrub (other)	2	1	1	-	-	-	-	-	0.965	-
Heathland and shrub - Upland heathland	6	0.67	0.67	0.343	0.41	0.49	0.586	0.7	-	-
Lakes - Aquifer fed naturally fluctuating water bodies	8	0.1	0.33	0.343	0.49	0.586	0.7	0.965	-	-
Lakes - High alkalinity lakes	6	0.33	0.33	0.343	0.49	0.7	0.779	0.837	-	-
Lakes - Low alkalinity lakes	6	0.33	0.67	0.343	0.49	0.7	0.779	0.837	-	-
Lakes - Marl lakes	6	0.33	0.33	0.343	0.49	0.7	0.779	0.837	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment N/A	N/A - Other
Lakes - Moderate alkalinity lakes	6	0.33	0.33	0.343	0.49	0.7	0.779	0.837	-	-
Lakes - Ornamental lake or pond	2	1	0.33	0.837	0.867	0.899	0.931	0.965	-	-
Lakes - Peat lakes	6	0.33	0.33	0.343	0.49	0.7	0.779	0.837	-	-
Lakes - Ponds (Priority Habitat)	6	0.67	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Lakes - Ponds (Non- Priority Habitat)	4	1	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Lakes - Reservoirs	4	0.67	0.67	0.7	0.779	0.837	0.899	0.965	-	-
Lakes - Temporary lakes, ponds and pools	6	0.67	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Sparsely vegetated land - Calaminarian grasslands	8	0.1	0.67	0.7	0.779	0.837	0.899	0.931	-	-
Sparsely vegetated land - Coastal sand dunes	6	0.1	0.67	0.49	0.586	0.7	0.779	0.837	-	-
Sparsely vegetated land - Coastal vegetated shingle	6	0.1	0.67	0.49	0.586	0.7	0.779	0.837	-	-
Sparsely vegetated land - Ruderal/Ephemeral	2	1	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Sparsely vegetated land - Inland rock outcrop and scree habitats	6	0.33	1	0.32	0.41	0.49	0.586	0.7	-	-
Sparsely vegetated land - Limestone pavement	8	0.1	0.67	0.32	0.32	0.32	0.32	0.32	-	-
Sparsely vegetated land - Maritime cliff and slopes	6	0.33	0.67	0.49	0.586	0.7	0.779	0.837	-	-
Sparsely vegetated land - Other inland rock and scree	4	0.67	0.67	0.49	0.586	0.7	0.779	0.837	-	-
Urban - Allotments	2	1	1	0.965	0.965	0.965	0.965	0.965	-	-
Urban - Artificial unvegetated, unsealed surface	0	1	1	-	-	-	-	-	-	1
Urban - Bioswale	2	0.67	1	0.899	0.931	0.965	0.965	0.965	-	-
Urban - Biodiverse green roof	4	0.67	1	0.7	0.752	0.837	0.899	0.965	-	-
Urban - Built linear features	0	1	1	-	-	-	-	-	-	1
Urban - Cemeteries and churchyards	4	0.67	1	0.49	0.546	0.586	0.652	0.7	-	-
Urban - Developed land; sealed surface	0	1	0.67	-	-	-	-	-	-	1
Urban - Facade-bound green wall	2	0.67	0.67	0.837	0.867	0.899	0.931	0.965	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment N/A	N/A - Other
Urban - Ground based green wall	2	0.67	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Urban - Ground level planters	2	1	1	-	-	-	-	-	0.965	-
Urban - Intensive green roof	2	0.67	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Urban - Introduced shrub	2	1	1	-	-	-	-	0.965	-	-
Urban - Open mosaic habitats on previously developed land	6	0.67	0.67	0.7	0.779	0.867	0.931	1	-	-
Urban – Other green roof	-	-	-	-	-	-	-	-	-	1
Urban - Rain garden	2	1	1	0.837	0.867	0.899	0.931	0.965	-	-
Urban – Actively worked sand pit quarry or open cast mine	2	0.67	0.67	-	-	-	-	-	0.965	-
Urban - Urban tree	4	1	1	0.32	0.32	0.382	0.586	0.7	-	-
Urban - Sustainable urban drainage feature	2	0.67	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Urban - Un-vegetated garden	0	1	1	-	-	-	-	-	-	1
Urban - Vacant/derelict land/ bare ground	2	1	1	0.837	0.867	0.899	0.931	0.965	-	-
Urban - Vegetated garden	2	1	1	-	-	-	-	-	0.965	-
Wetland - Blanket bog	8	0.1	0.33	0.32	0.32	0.32	0.32	0.32	-	-
Wetland - Depressions on peat substrates (H7150)	8	0.1	0.33	0.32	0.32	0.343	0.41	0.586	-	-
Wetland - Fens (upland and lowland)	8	0.33	0.33	0.343	0.41	0.49	0.586	0.7	-	-
Wetland - lowland raised bog	8	0.1	0.33	0.32	0.32	0.343	0.49	0.586	-	-
Wetland - Oceanic valley mire [1] (D2.1)	8	0.1	0.33	0.32	0.32	0.343	0.49	0.586	-	-
Wetland - Purple moor grass and rush pastures	8	0.33	0.33	0.343	0.41	0.49	0.586	0.7	-	-
Wetland - Reedbeds	6	0.67	0.67	0.652	0.7	0.779	0.837	0.899	-	-
Wetland - Transition mires and quaking bogs (H7140)	8	0.1	0.33	0.32	0.32	0.343	0.41	0.586	-	-
Woodland and forest - Felled	6	1	1	-	-	-	-	-	-	-
Woodland and forest - lowland beech and yew woodland	6	0.33	0.33	0.32	0.32	0.32	0.41	0.7	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment N/A	N/A - Other
Woodland and forest - lowland mixed deciduous woodland	6	0.33	0.33	0.32	0.32	0.32	0.41	0.7	-	-
Woodland and forest - Native pine woodlands	6	0.33	0.33	0.32	0.32	0.32	0.41	0.7	-	-
Woodland and forest - Other coniferous woodland	2	1	1	0.32	0.32	0.343	0.7	0.837	-	-
Woodland and forest - Other Scot's pine woodland	4	0.67	0.67	0.32	0.32	0.32	0.41	0.7	-	-
Woodland and forest - Other woodland; broadleaved	4	1	1	0.32	0.410	0.586	0.779	0.837	-	-
Woodland and forest - Other woodland; mixed	4	1	1	0.32	0.32	0.343	0.7	0.837	-	-
Woodland and forest - Upland birchwoods	6	0.67	0.67	0.32	0.343	0.41	0.49	0.7	-	-
Woodland and forest - Upland mixed ashwoods	6	0.33	0.33	0.32	0.32	0.32	0.41	0.7	-	-
Woodland and forest - Upland oakwood	6	0.33	0.33	0.32	0.32	0.32	0.41	0.7	-	-
Woodland and forest - Wet woodland	6	0.67	0.67	0.32	0.343	0.586	0.7	0.837	-	-
Woodland and forest - Wood-pasture and parkland	8	0.1	0.33	0.32	0.32	0.32	0.41	0.7	-	-
Rocky shore - High energy littoral rock	6	0.33	0.67	0.7	0.779	0.867	0.931	0.965	-	-
Rocky shore - High energy littoral rock - on peat, clay or chalk	8	0.1	0.67	0.32	0.32	0.32	0.32	0.32	-	-
Rocky shore - Moderate energy littoral rock	6	0.33	0.67	0.629	0.752	0.867	0.931	0.965	-	-
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	8	0.1	0.67	0.32	0.32	0.32	0.32	0.32	-	-
Rocky shore - Low energy littoral rock	6	0.33	0.67	0.586	0.7	0.837	0.965	0.965	-	-
Rocky shore - Low energy littoral rock - on peat, clay or chalk	8	0.1	0.67	0.32	0.32	0.32	0.32	0.32	-	-
Rocky shore - Features of littoral rock	6	0.33	0.67	0.629	0.752	0.867	0.931	0.965	-	-
Rocky shore - Features of littoral rock - on peat, clay or chalk	8	0.1	0.67	0.32	0.32	0.32	0.32	0.32	-	-
Intertidal sediment - Littoral coarse sediment	4	0.67	0.67	0.899	0.931	0.965	0.965	0.965	-	-
Intertidal sediment - Littoral mud	6	0.33	0.67	0.808	0.867	0.899	0.931	0.965	-	-
Intertidal sediment - Littoral mixed sediments	6	0.33	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	2	0.33	0.67	0.586	0.7	0.779	0.899	0.965	-	-

Habitat Description	Distinctiveness	Difficulty of		Time (years) to target condition for habitat creation						
		Creation	Enhancement	Good	Fairly Good	Moderate	Fairly Poor	Poor	Condition Assessment N/A	N/A - Other
Intertidal sediment - Littoral seagrass	6	0.33	0.33	0.49	0.586	0.7	0.837	0.931	-	-
Intertidal sediment - Littoral seagrass on peat, clay or chalk	8	0.1	0.33	0.32	0.32	0.32	0.32	0.32	-	-
Intertidal sediment - Littoral biogenic reefs - Mussels	6	0.33	0.67	0.586	0.7	0.837	0.899	0.899	-	-
Intertidal sediment - Littoral biogenic reefs - Sabellaria	6	0.33	0.67	0.586	0.7	0.837	0.899	0.899	-	-
Intertidal sediment - Features of littoral sediment	6	0.33	0.67	0.7	0.779	0.837	0.899	0.899	-	-
Intertidal sediment - Artificial littoral coarse sediment	2	0.67	0.67	0.899	0.931	0.965	0.965	0.965	-	-
Intertidal sediment - Artificial littoral mud	2	0.33	0.67	0.808	0.867	0.899	0.931	0.965	-	-
Intertidal sediment - Artificial littoral sand	2	0.67	0.67	0.867	0.931	0.965	0.965	0.965	-	-
Intertidal sediment - Artificial littoral muddy sand	2	0.33	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Intertidal sediment - Artificial littoral mixed sediments	2	0.33	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Intertidal sediment - Artificial littoral seagrass	2	0.33	0.33	0.49	0.586	0.7	0.837	0.931	-	-
Intertidal sediment - Artificial littoral biogenic reefs	2	0.33	0.67	0.586	0.7	0.837	0.899	0.899	-	-
Intertidal sediment - Littoral sand	4	0.67	0.67	0.867	0.931	0.965	0.965	0.965	-	-
Intertidal sediment - Littoral muddy sand	6	0.33	0.67	0.837	0.867	0.899	0.931	0.965	-	-
Intertidal hard structures - Artificial hard structures	2	0.67	0.67	0.586	0.7	0.837	0.931	0.965	-	-
Intertidal hard structures - Artificial features of hard structures	2	0.67	0.67	0.629	0.752	0.867	0.931	0.965	-	-
Intertidal hard structures - Artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	4	0.67	0.67	0.629	0.752	0.867	0.931	0.965	-	-

TABLE TS3-4: Area habitat data values (numerical values used in Calculation Tool) for time to target condition for enhancement and restoration

Key: '-' indicates that an option is not possible or permitted within the metric calculation

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Cropland - Arable field margins cultivated annually	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-	-
Cropland - Arable field margins game bird mix	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-	-
Cropland - Arable field margins pollen & nectar	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-	-
Cropland - Arable field margins tussocky	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-	-
Cropland - Cereal crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Cropland - Cereal crops winter stubble	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-	-
Cropland - Horticulture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cropland - Intensive orchards	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cropland - Non-cereal crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cropland - Temporary grass and clover leys	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grassland - Traditional orchards	0.837	0.586	0.490	0.410	0.700	0.586	0.490	0.837	0.700	0.837	-	-	0.837	0.700	0.490	0.410	0.343
Grassland - Bracken	-	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Grassland - Floodplain wetland mosaic (CFGM)	0.752	0.700	0.652	0.586	0.931	0.867	0.779	0.931	0.867	0.899	-	-	0.837	0.752	0.700	0.652	0.586
Grassland - Lowland calcareous grassland	0.837	0.700	0.586	0.490	0.837	0.700	0.586	0.837	0.700	0.837	-	-	0.700	0.586	0.490	0.410	0.343
Grassland - Lowland dry acid grassland	0.837	0.586	0.490	0.320	0.752	0.586	0.410	0.700	0.490	0.700	-	-	0.700	0.586	0.490	0.410	0.320
Grassland - Lowland meadows	0.867	0.752	0.676	0.586	0.867	0.752	0.676	0.867	0.752	0.867	-	-	0.837	0.752	0.700	0.652	0.586
Grassland - Modified grassland	0.837	0.700	0.652	0.586	0.752	0.700	0.652	0.752	0.700	0.752	-	0.965	0.965	0.837	0.700	0.652	0.586
Grassland - Other lowland acid grassland	0.837	0.700	0.652	0.586	0.752	0.700	0.652	0.752	0.700	0.752	-	-	0.965	0.837	0.700	0.652	0.586
Grassland - Other neutral grassland	0.837	0.700	0.652	0.586	0.752	0.700	0.652	0.752	0.700	0.752	-	-	0.965	0.837	0.700	0.652	0.586

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Grassland - Tall herb communities (H6430)	0.700	0.490	0.410	0.343	0.700	0.700	0.586	0.837	0.700	0.837	-	-	0.700	0.586	0.490	0.410	0.343
Grassland - Upland acid grassland	0.837	0.700	0.652	0.586	0.752	0.700	0.652	0.752	0.700	0.752	-	-	0.965	0.837	0.700	0.652	0.586
Grassland - Upland calcareous grassland	0.700	0.586	0.527	0.490	0.700	0.586	0.527	0.700	0.700	0.700	-	-	0.700	0.652	0.586	0.490	0.410
Grassland - Upland hay meadows	0.700	0.586	0.527	0.490	0.700	0.586	0.527	0.700	0.586	0.700	-	-	0.700	0.652	0.586	0.527	0.490
Heathland and shrub - Blackthorn scrub	0.965	0.837	0.779	0.700	0.899	0.837	0.899	0.931	0.899	0.931	-	-	0.965	0.899	0.837	0.779	0.700
Heathland and shrub - Bramble scrub	-	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-
Heathland and shrub - Gorse scrub	0.965	0.837	0.779	0.700	0.899	0.837	0.779	0.931	0.899	0.931	-	-	0.965	0.899	0.837	0.779	0.700

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Heathland and shrub - Hawthorn scrub	0.965	0.837	0.779	0.700	0.899	0.837	0.779	0.931	0.899	0.931	-	-	0.965	0.899	0.837	0.779	0.700
Heathland and shrub - Hazel scrub	0.837	0.779	0.652	0.586	0.837	0.752	0.652	0.837	0.779	0.837	-	-	0.837	0.779	0.700	0.652	0.586
Heathland and shrub - Lowland heathland	0.837	0.700	0.586	0.410	0.837	0.700	0.490	0.837	0.586	0.700	-	-	0.700	0.586	0.490	0.410	0.320
Heathland and shrub - Mixed scrub	0.965	0.837	0.779	0.700	0.899	0.837	0.779	0.931	0.899	0.931	-	-	0.965	0.899	0.837	0.779	0.700
Heathland and shrub - Mountain heaths and willow scrub	0.490	0.320	0.320	0.320	0.490	0.320	0.320	0.490	0.320	0.490	-	-	0.586	0.441	0.410	0.320	0.320
Heathland and shrub - Rhododendron scrub	-	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-
Heathland and shrub - Sea buckthorn scrub (Annex 1)	0.837	0.779	0.700	0.652	0.837	0.779	0.700	0.837	0.779	0.837	-	-	0.837	0.779	0.700	0.652	0.586

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Heathland and shrub - Sea buckthorn scrub (other)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heathland and shrub - Upland heathland	0.700	0.490	0.343	0.320	0.700	0.490	0.343	0.700	0.490	0.700	-	-	0.700	0.586	0.490	0.410	0.343
Lakes - Aquifer fed naturally fluctuating water bodies	0.837	0.700	0.586	0.343	0.837	0.586	0.410	0.837	0.490	0.837	-	-	0.965	0.700	0.586	0.490	0.343
Lakes - High alkalinity lakes	0.837	0.700	0.586	0.343	0.837	0.586	0.410	0.700	0.490	0.700	-	-	0.931	0.899	0.837	0.779	0.700
Lakes - Low alkalinity lakes	0.837	0.700	0.586	0.490	0.837	0.700	0.586	0.837	0.700	0.837	-	-	0.837	0.700	0.586	0.490	0.343
Lakes - Marl lakes	0.837	0.700	0.586	0.343	0.837	0.586	0.410	0.700	0.490	0.700	-	-	0.837	0.779	0.700	0.586	0.490
Lakes - Moderate alkalinity lakes	0.837	0.700	0.586	0.343	0.837	0.586	0.410	0.700	0.490	0.700	-	-	0.837	0.779	0.700	0.586	0.490

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Lakes - Peat lakes	0.837	0.700	0.586	0.343	0.837	0.586	0.410	0.700	0.490	0.700	-	-	0.837	0.700	0.586	0.490	0.343
Lakes - Ponds (Priority Habitat)	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	0.931	0.899	0.837	0.779	0.700
Lakes - Ponds (Non- Priority Habitat)	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	0.965	0.931	0.899	0.867	0.837
Lakes - Reservoirs	0.837	0.700	0.586	0.343	0.837	0.586	0.410	0.700	0.490	0.700	-	-	0.965	0.899	0.837	0.779	0.700
Lakes - Temporary lakes, ponds and pools	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	0.931	0.899	0.837	0.779	0.700
Sparsely vegetated land - Calaminarian grasslands	0.965	0.899	0.837	0.752	0.965	0.867	0.779	0.931	0.837	0.899	-	-	0.931	0.899	0.837	0.779	0.700
Sparsely vegetated land - Coastal sand dunes	0.837	0.752	0.586	0.490	0.837	0.700	0.527	0.779	0.652	0.752	-	-	0.837	0.779	0.700	0.586	0.490

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Sparsely vegetated land - Coastal vegetated shingle	0.837	0.752	0.586	0.490	0.837	0.700	0.527	0.779	0.652	0.752	-	-	0.837	0.779	0.700	0.586	0.490
Sparsely vegetated land - Ruderal/Ephemeral	0.965	0.931	0.899	0.837	0.965	0.931	0.899	0.965	0.931	0.965	-	-	-	-	-	-	-
Sparsely vegetated land - Inland rock outcrop and scree habitats	0.700	0.586	0.410	0.320	0.490	0.410	0.382	0.586	0.490	0.586	-	-	0.700	0.586	0.490	0.410	0.320
Sparsely vegetated land - Limestone pavement	0.837	0.700	0.586	0.490	0.837	0.700	0.586	0.837	0.700	0.837	-	-	0.320	0.320	0.320	0.320	0.320
Sparsely vegetated land - Maritime cliff and slopes	0.837	0.752	0.586	0.490	0.837	0.700	0.527	0.779	0.652	0.752	-	-	0.700	0.586	0.490	0.410	0.320
Sparsely vegetated land - Other inland rock and scree	0.837	0.700	0.586	0.490	0.837	0.700	0.586	0.837	0.700	0.837	-	-	0.899	0.837	0.700	0.586	0.490
Urban - Allotments	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	-	0.965	0.965	0.965	0.965	0.965	0.965

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Lakes - Ornamental lake or pond	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	0.965	0.931	0.899	0.867	0.837
Urban - Artificial unvegetated, unsealed surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Bioswale	0.965	0.931	0.931	0.899	0.965	0.899	0.899	0.931	0.931	0.931	-	-	0.965	0.965	0.965	0.931	0.899
Urban - Biodiverse green roof	0.899	0.837	0.752	0.700	0.899	0.752	0.752	0.899	0.837	0.931	-	-	0.965	0.899	0.837	0.752	0,752
Urban - Built linear features	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Cemeteries and churchyards	0.837	0.700	0.586	0.490	0.700	0.586	0.490	0.700	0.586	0.837	-	-	0.700	0.652	0.586	0.546	0.490
Urban - Developed land; sealed surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Urban - Facade-bound green wall	0.965	0.931	0.899	0.837	0.965	0.931	0.899	0.965	0.931	0.965	-	-	0.965	0.931	0.899	0.867	0.837
Urban - Ground based green wall	0.965	0.931	0.899	0.837	0.965	0.931	0.899	0.965	0.931	0.965	-	-	0.965	0.931	0.899	0.867	0.837
Urban - Ground level planters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Intensive green roof	0.965	0.931	0.899	0.837	0.965	0.931	0.752	0.899	0.837	0.931	-	-	0.965	0.931	0.899	0.867	0.837
Urban - Introduced shrub	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Open mosaic habitats on previously developed land	0.931	0.867	0.779	0.700	0.931	0.837	0.752	0.899	0.867	0.899	-	-	1.000	0.931	0.867	0.779	0.700
Urban – Other green roof	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Urban - Rain garden	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	-	-	0.965	0.965	0.965	0.965	0.965
Urban – Actively worked sand pit quarry or open cast mine	-	-	-	-	-	-	-	-	-	-	-	-	0.965	-	-	-	-
Urban - Urban tree	0.752	0.566	0.425	0.320	0.752	0.566	0.425	0.752	0.566	0.752	-	-	-	-	-	-	-
Urban - Sustainable urban drainage feature	0.965	0.931	0.899	0.837	0.965	0.931	0.899	0.965	0.931	0.965	-	-	0.965	0.931	0.899	0.867	0.837
Urban - Un-vegetated garden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urban - Vacant/derelict land/ bare ground	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965	-	-	0.965	0.965	0.965	0.965	0.965
Urban - Vegetated garden	0.965	0.931	0.899	0.837	0.965	0.931	0.899	0.965	0.931	0.965	-	-	0.965	0.931	0.899	0.867	0.837

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Wetland - Blanket bog	0.700	0.490	0.320	0.343	0.700	0.320	0.320	0.343	0.320	0.343	-	-	0.586	0.410	0.343	0.320	0.320
Wetland - Depressions on Peat substrates (H7150)	0.700	0.490	0.410	0.343	0.700	0.490	0.410	0.700	0.490	0.700	-	-	0.586	0.410	0.343	0.320	0.320
Wetland - Fens (upland and lowland)	0.700	0.652	0.586	0.527	0.700	0.652	0.586	0.700	0.652	0.700	-	-	0.700	0.652	0.586	0.410	0.343
Wetland - Lowland raised bog	0.700	0.490	0.410	0.343	0.700	0.490	0.490	0.700	0.586	0.700	-	-	0.586	0.490	0.343	0.320	0.320
Wetland - Oceanic valley mire [1] (D2.1)	0.700	0.490	0.410	0.343	0.700	0.490	0.490	0.700	0.586	0.700	-	-	0.586	0.490	0.343	0.320	0.320
Wetland - Purple moor grass and rush pastures	0.700	0.700	0.586	0.490	0.700	0.586	0.490	0.700	0.586	0.700	-	-	0.700	0.652	0.586	0.546	0.490
Wetland - Reedbeds	0.837	0.779	0.700	0.652	0.837	0.779	0.700	0.837	0.779	0.837	-	-	0.837	0.779	0.700	0.652	0.586

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Wetland - Transition mires and quaking bogs (H7140)	0.700	0.490	0.410	0.343	0.700	0.490	0.490	0.700	0.586	0.700	-	-	0.586	0.410	0.343	0.320	0.320
Woodland and forest - Felled	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woodland and forest - Lowland beech and yew woodland	0.410	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	-	-	0.700	0.410	0.320	0.320	0.320
Woodland and forest - Lowland mixed deciduous woodland	0.700	0.490	0.410	0.320	0.700	0.490	0.410	0.700	0.490	0.700	-	-	0.700	0.410	0.320	0.320	0.320
Woodland and forest - Native pine woodlands	0.700	0.586	0.490	0.320	0.586	0.490	0.410	0.700	0.586	0.700	-	-	0.410	0.343	0.320	0.320	0.320
Woodland and forest - Other coniferous woodland	0.837	0.410	0.320	0.320	0.490	0.586	0.410	0.837	0.779	0.700	-	-	-	-	-	-	-
Woodland and forest - Other Scot's pine woodland	0.700	0.586	0.490	0.320	0.586	0.490	0.410	0.700	0.586	0.700	-	-	0.490	0.410	0.320	0.320	0.320

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Woodland and forest - Other woodland; broadleaved	0.837	0.700	0.586	0.490	0.837	0.700	0.586	0.837	0.700	0.837	-	-	0.837	0.700	0.586	0.490	0.410
Woodland and forest - Other woodland; mixed	0.837	0.700	0.586	0.490	0.837	0.700	0.586	0.837	0.700	0.837	-	-	0.837	0.700	0.586	0.490	0.410
Woodland and forest - Upland birchwoods	0.700	0.586	0.490	0.320	0.586	0.490	0.410	0.700	0.586	0.700	-	-	0.700	0.490	0.410	0.343	0.320
Woodland and forest - Upland mixed ashwoods	0.700	0.586	0.490	0.320	0.586	0.490	0.410	0.700	0.586	0.700	-	-	0.700	0.410	0.320	0.320	0.320
Woodland and forest - Upland oakwood	0.410	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	-	-	0.700	0.410	0.320	0.320	0.320
Woodland and forest - Wet woodland	0.700	0.700	0.586	0.320	0.586	0.490	0.410	0.700	0.586	0.700	-	-	0.700	0.490	0.410	0.343	0.320
Woodland and forest - Wood-pasture and parkland	0.410	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	-	-	0.700	0.410	0.320	0.320	0.320

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Coastal lagoons - Coastal lagoons	0.965	0.867	0.752	0.652	0.899	0.779	0.676	0.867	0.752	0.867	-	-	-	-	-	-	-
Rocky shore - High energy littoral rock	0.931	0.867	0.808	0.700	0.931	0.867	0.752	0.931	0.808	0.867	-	-	-	-	-	-	-
Rocky shore - High energy littoral rock - on peat, clay or chalk	0.931	0.867	0.808	0.700	0.931	0.867	0.752	0.931	0.808	0.867	-	-	-	-	-	-	-
Rocky shore - Moderate energy littoral rock	0.931	0.867	0.808	0.676	0.931	0.867	0.726	0.931	0.779	0.837	-	-	-	-	-	-	-
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	0.931	0.867	0.808	0.676	0.931	0.867	0.726	0.931	0.779	0.837	-	-	-	-	-	-	-
Rocky shore - Low energy littoral rock	0.931	0.867	0.808	0.652	0.931	0.867	0.700	0.931	0.752	0.808	-	-	-	-	-	-	-
Rocky shore - Low energy littoral rock - on peat, clay or chalk	0.931	0.867	0.808	0.652	0.931	0.867	0.700	0.931	0.752	0.808	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Rocky shore - Features of littoral rock	0.931	0.867	0.808	0.676	0.931	0.867	0.726	0.931	0.779	0.837	-	-	-	-	-	-	-
Rocky shore - Features of littoral rock - on peat, clay or chalk	0.931	0.867	0.808	0.676	0.931	0.867	0.726	0.931	0.779	0.837	-	-	-	-	-	-	-
Intertidal sediment - Littoral coarse sediment	0.965	0.931	0.899	0.867	0.965	0.931	0.899	0.965	0.931	0.965	-	-	-	-	-	-	-
Intertidal sediment - Littoral mud	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	-	-	-	-	-
Intertidal sediment - Littoral mixed sediments	0.965	0.931	0.899	0.867	0.965	0.931	0.899	0.965	0.931	0.965	-	-	-	-	-	-	-
Coastal saltmarsh - Saltmarshes and saline reedbeds	0.931	0.808	0.700	0.490	0.867	0.752	0.527	0.867	0.607	0.700	-	-	-	-	-	-	-
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	0.931	0.808	0.700	0.490	0.867	0.752	0.527	0.867	0.607	0.700	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Intertidal sediment - Littoral seagrass	0.899	0.629	0.441	1.000	0.700	0.490	0.343	0.700	0.490	0.700	-	-	-	-	-	-	-
Intertidal sediment - Littoral seagrass on peat, clay or chalk	0.931	0.867	0.779	1.000	0.931	0.899	0.752	0.899	0.808	0.899	-	-	-	-	-	-	-
Intertidal sediment - Littoral biogenic reefs - Mussels	0.931	0.867	0.779	0.700	0.931	0.899	0.752	0.899	0.808	0.899	-	-	-	-	-	-	-
Intertidal sediment - Littoral biogenic reefs - Sabellaria	0.931	0.867	0.779	0.700	0.931	0.899	0.752	0.899	0.808	0.899	-	-	-	-	-	-	-
Intertidal sediment - Features of littoral sediment	0.965	0.931	0.899	0.837	0.965	0.931	0.867	0.965	0.899	0.931	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral coarse sediment	0.965	0.931	0.899	0.867	0.965	0.931	0.899	0.965	0.931	0.965	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral mud	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Intertidal sediment - Artificial littoral sand	0.931	0.899	0.867	0.808	0.965	0.931	0.867	0.965	0.899	0.931	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral muddy sand	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral mixed sediments	0.965	0.931	0.899	0.867	0.965	0.931	0.899	0.965	0.931	0.965	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral seagrass	0.899	0.629	0.441	0.320	0.700	0.490	0.343	0.700	0.490	0.700	-	-	-	-	-	-	-
Intertidal sediment - Artificial littoral biogenic reefs	0.931	0.867	0.779	0.700	0.931	0.899	0.752	0.899	0.808	0.899	-	-	-	-	-	-	-
Intertidal sediment - Littoral sand	0.931	0.899	0.867	0.808	0.965	0.931	0.867	0.965	0.899	0.931	-	-	-	-	-	-	-
Intertidal sediment - Littoral muddy sand	0.931	0.867	0.808	0.752	0.931	0.867	0.808	0.931	0.867	0.931	-	-	-	-	-	-	-

Habitat	Time to target condition (years) for enhancement or restoration																
	Condition change										With elevation to higher distinctiveness habitat						
	Poor - Fairly Poor	Poor - Moderate	Poor - Fairly Good	Poor - Good	Fairly Poor - Moderate	Fairly Poor - Fairly Good	Fairly Poor - Good	Moderate - Fairly Good	Moderate - Good	Fairly Good - Good	N/A - Other	Condition Assessment N/A	Poor	Fairly Poor	Moderate	Fairly Good	Good
Intertidal hard structures - Artificial hard structures	0.808	0.867	0.700	0.931	0.931	0.752	0.808	0.931	0.652	0.867	-	-	-	-	-	-	-
Intertidal hard structures - Artificial features of hard structures	0.837	0.867	0.726	0.931	0.931	0.779	0.808	0.931	0.676	0.867	-	-	-	-	-	-	-
Intertidal hard structures - Artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)	0.837	0.867	0.726	0.931	0.931	0.779	0.808	0.931	0.676	0.867	-	-	-	-	-	-	-

Hedgerow and Line of trees data tables

Table TS3-5: Hedgerow and Lines of trees data values (categorical values) for Distinctiveness and Time to target condition for creation and enhancement through improving condition (excludes enhancement through improving distinctiveness – see Table TS3-6)

Note: Difficulty of creation is Low for all hedgerows

Hedgerow type	Distinctiveness	Creation - Years to Target Condition			Enhancement Through Condition - Years to Target Condition		
		Poor	Moderate	Good	Poor - Moderate	Poor - Good	Moderate - Good
Native species rich hedgerow with trees - Associated with bank or ditch	Very high	1	10	20	6	10	4
Native species rich hedgerow with trees with trees	High	1	10	20	6	10	4
Native species rich hedgerow with trees - Associated with bank or ditch	High	1	5	12	3	5	2
Native species rich hedgerow	Medium	1	5	12	3	5	2
Native hedgerow with trees - Associated with bank or ditch	High	1	10	20	6	10	4
Native hedgerow - Associated with bank or ditch	Medium	1	5	12	3	5	2
Native hedgerow with trees	Medium	1	10	20	6	10	4

Hedgerow type	Distinctiveness	Creation - Years to Target Condition			Enhancement Through Condition - Years to Target Condition		
		Poor	Moderate	Good	Poor - Moderate	Poor - Good	Moderate - Good
Native hedgerow	Low	1	5	12	3	5	2
Line of trees (Ecologically valuable)	Medium	1	20	30	20	30	10
Line of trees (Ecologically valuable) - Associated with Bank or Ditch	Medium	1	20	30	20	30	10
Line of trees	Low	1	20	30	20	30	10
Line of trees - Associated with bank or ditch	Low	1	20	30	20	30	10
Hedge ornamental non-native	Very low	1	N/A	N/A	N/A	N/A	N/A

Table TS3-6: Hedgerow and Lines of trees data values (categorical values) for enhancement through improving distinctiveness

Key: '-' indicates that an option is not possible or permitted within the metric calculation

Baseline hedgerow habitat	Enhancement through Distinctiveness - Years to target condition												
	Post intervention hedgerow habitat												
	Native Species Rich Hedgerow with trees - Associated with bank or ditch	Native Species Rich Hedgerow with trees	Native Species Rich Hedgerow - associated with bank or ditch	Native Hedgerow with trees - associated with bank or ditch	Native Species Rich Hedgerow	Native Hedgerow - associated with bank or ditch	Native Hedgerow with trees	Line of Trees (ecologically valuable)	Line of Trees (ecologically valuable) - with bank or ditch	Native Hedgerow	Line of Trees	Line of Trees - associated with bank or ditch	Hedge ornamental non-native
Native Species Rich Hedgerow with trees - Associated with bank or ditch	-	-	-	-	-	-	-	-	-	-	-	-	-
Native Species Rich Hedgerow with trees	5	-	-	-	-	-	-	-	-	-	-	-	-
Native Species Rich Hedgerow - Associated with bank or ditch	10	-	-	-	-	-	-	-	-	-	-	-	-
Native Hedgerow with trees - Associated with bank or ditch	5	-	-	-	-	-	-	-	-	-	-	-	-
Native Species Rich Hedgerow	10	10	5	10	-	-	-	-	-	-	-	-	-
Native Hedgerow - Associated with bank or ditch	10	10	5	10	-	-	-	-	-	-	-	-	-
Native Hedgerow with trees	5	5	5	5	-	-	-	-	-	-	-	-	-

Baseline hedgerow habitat	Enhancement through Distinctiveness - Years to target condition												
	Post intervention hedgerow habitat												
	Native Species Rich Hedgerow with trees - Associated with bank or ditch	Native Species Rich Hedgerow with trees	Native Species Rich Hedgerow - associated with bank or ditch	Native Hedgerow with trees - associated with bank or ditch	Native Species Rich Hedgerow	Native Hedgerow - associated with bank or ditch	Native Hedgerow with trees	Line of Trees (ecologically valuable)	Line of Trees (ecologically valuable) - with bank or ditch	Native Hedgerow	Line of Trees	Line of Trees - associated with bank or ditch	Hedge ornamental non-native
Line of Trees (Ecologically Valuable)	12	12	-	12	-	-	-	-	-	-	-	-	-
Line of Trees (Ecologically Valuable) - with Bank or Ditch	12	12	-	12	-	-	-	-	-	-	-	-	-
Native Hedgerow	10	10	5	10	5	6	10	-	-	-	-	-	-
Line of Trees	12	12	-	12	-	-	12	-	-	-	-	-	-
Line of Trees - Associated with bank or ditch	12	12	-	12	-	-	12	-	-	-	-	-	-
Hedge ornamental non-native	-	-	-	-	-	-	-	-	-	-	-	-	-

Table TS3-7: Hedgerow and Lines of trees data values (numerical values) for Distinctiveness and Time to target condition for creation and enhancement through improving condition (Excludes enhancement through improving distinctiveness – see Table TS3-8)

Note: Difficulty of creation is Low (1.0) for all hedgerows

Hedgerow type	Distinctiveness	Habitat creation - Time to target condition			Habitat enhancement through condition change - Time to target condition		
		Poor	Moderate	Good	Poor - Moderate	Poor - Good	Moderate - Good
Native species rich hedgerow with trees - Associated with bank or ditch	8	0.965	0.779	0.49	0.808	0.779	0.867
Native species rich hedgerow with trees	6	0.965	0.779	0.49	0.808	0.779	0.867
Native species rich hedgerow - Associated with bank or ditch	6	0.965	0.837	0.652	0.899	0.837	0.931
Native species rich hedgerow	4	0.965	0.837	0.652	0.899	0.837	0.931
Native hedgerow with trees - Associated with bank or ditch	6	0.965	0.779	0.49	0.808	0.779	0.867
Native hedgerow - Associated with bank or ditch	4	0.965	0.837	0.652	0.899	0.837	0.931

Hedgerow type	Distinctiveness	Habitat creation - Time to target condition			Habitat enhancement through condition change - Time to target condition		
		Poor	Moderate	Good	Poor - Moderate	Poor - Good	Moderate - Good
Native hedgerow with trees	4	0.965	0.779	0.49	0.808	0.779	0.867
Native hedgerow	2	0.965	0.837	0.652	0.899	0.837	0.931
Line of trees (Ecologically valuable)	4	0.965	0.49	0.343	0.49	0.343	0.779
Line of trees (Ecologically valuable) - Associated with Bank or Ditch	4	0.965	0.49	0.343	0.49	0.343	0.779
Line of trees	2	0.965	0.49	0.343	0.49	0.343	0.779
Line of trees - Associated with bank or ditch	2	0.965	0.49	0.343	0.49	0.343	0.779
Hedge ornamental non-native	1	0.965	-	-	-	-	-

Table TS3-8: Hedgerow and Lines of trees data values (numerical values) for enhancement through improving distinctiveness

Key: '-' indicates that an option is not possible or permitted within the metric calculation

Baseline hedgerow habitat	Enhancement through Distinctiveness - Years to target condition												
	Post intervention hedgerow habitat												
	Native Species Rich Hedgerow with trees - Associated with bank or ditch	Native Species Rich Hedgerow with trees	Native Species Rich Hedgerow - associated with bank or ditch	Native Hedgerow with trees - associated with bank or ditch	Native Species Rich Hedgerow	Native Hedgerow - associated with bank or ditch	Native Hedgerow with trees	Line of Trees (ecologically valuable)	Line of Trees (ecologically valuable) - with bank or ditch	Native Hedgerow	Line of Trees	Line of Trees - associated with bank or ditch	Hedge Ornamental non-native
Native Species Rich Hedgerow with trees - Associated with bank or ditch	-	-	-	-	-	-	-	-	-	-	-	-	-
Native Species Rich Hedgerow with trees	0.837	-	-	-	-	-	-	-	-	-	-	-	-
Native Species Rich Hedgerow - Associated with bank or ditch	0.700	-	-	-	-	-	-	-	-	-	-	-	-
Native Hedgerow with trees - Associated with bank or ditch	0.837	-	-	-	-	-	-	-	-	-	-	-	-
Native Species Rich Hedgerow	0.700	0.700	0.837	0.700	-	-	-	-	-	-	-	-	-
Native Hedgerow - Associated with bank or ditch	0.700	0.700	0.837	0.700	-	-	-	-	-	-	-	-	-

Baseline hedgerow habitat	Enhancement through Distinctiveness - Years to target condition												
	Post intervention hedgerow habitat												
	Native Species Rich Hedgerow with trees - Associated with bank or ditch	Native Species Rich Hedgerow with trees	Native Species Rich Hedgerow - associated with bank or ditch	Native Hedgerow with trees - associated with bank or ditch	Native Species Rich Hedgerow	Native Hedgerow - associated with bank or ditch	Native Hedgerow with trees	Line of Trees (ecologically valuable)	Line of Trees (ecologically valuable) - with bank or ditch	Native Hedgerow	Line of Trees	Line of Trees - associated with bank or ditch	Hedge Ornamental non-native
Native Hedgerow with trees	0.837	0.837	0.837	0.837	-	-	-	-	-	-	-	-	-
Line of Trees (Ecologically Valuable)	0.652	0.652	-	0.652	-	-	-	-	-	-	-	-	-
Line of Trees (Ecologically Valuable) - with Bank or Ditch	0.652	0.652	-	0.652	-	-	-	-	-	-	-	-	-
Native Hedgerow	0.700	0.700	0.837	0.700	0.837	0.808	0.700	-	-	-	-	-	-
Line of Trees	0.652	0.652	-	0.652	-	-	0.652	-	-	-	-	-	-
Line of Trees - Associated with bank or ditch	0.652	0.652	-	0.652	-	-	0.652	-	-	-	-	-	-
Hedge Ornamental non-native	-	-	-	-	-	-	-	-	-	-	-	-	-

Rivers and streams data tables

TS3-9: Rivers and streams data values (categorical values)

Habitat Description	Distinctiveness	Difficulty Creation	Difficulty Enhancement		Time to target condition for creation all habitats (years)			Enhancement - time to target condition (years)					
								Baseline Condition	Proposed Condition				
									Poor	Fairly Poor	Moderate	Fairly Good	Good
Priority Habitat	Very high	High	Medium		Good	10		Poor	1	2	4	6	8
Other Rivers and Streams	High	High	Medium		Fairly Good	8		Fairly Poor	-	1	2	4	6
Ditches	Medium	Low	Medium		Moderate	5		Moderate	-	-	1	2	4
Canals	Medium	Low	Medium		Fairly Poor	2		Fairly Good	-	-	-	1	2
Culvert	Low	Low	Medium		Poor	1		Good	-	-	-	-	1

Enhancement through change in habitat Distinctiveness - Time to target condition for all habitats* (years)	10

*Note condition must be equivalent to or better than baseline habitat

TS3-10: Rivers and streams data values (numerical values)

Habitat Description	Distinctiveness	Difficulty Creation	Difficulty Enhancement
Priority Habitat	8	0.33	0.67
Other Rivers and Streams	6	0.33	0.67
Ditches	4	1	0.67
Canals	4	1	0.67
Culvert	2	1	0.67

Creation - Time to target condition for all habitats (multipliers)	
Good	0.700
Fairly Good	0.752
Moderate	0.837
Fairly Poor	0.931
Poor	0.965

Enhancement - time to target condition for all habitats (multipliers)					
Baseline Condition	Proposed Condition				
	Poor	Fairly Poor	Moderate	Fairly Good	Good
Poor	0.965	0.931	0.867	0.808	0.752
Fairly Poor	-	0.965	0.931	0.867	0.808
Moderate	-	-	0.965	0.931	0.867
Fairly Good	-	-	-	0.965	0.931
Good	-	-	-	-	0.965

Enhancement through change in habitat Distinctiveness - Time to target condition for all habitats* (multiplier)	0.700

*Note condition must be equivalent to or better than baseline habitat

ANNEX 1: CONDITION SHEETS

1 Coastal

2 Coastal lagoons

3 Coastal saltmarsh

4 Ditch

5 Grassland – Low Distinctiveness

6 Grassland – Medium, High & Very High Distinctiveness

7 Heathland

8 Hedgerow

9 Intertidal biogenic reefs

10 Intertidal hard structures

11 Intertidal seagrass

12 Intertidal sediment

13 Lake

14 Limestone Pavement

15 Line of Trees

16 Orchard

17 Pond

18 Rocky shore

19 Scrub

20 Sparsely Vegetated Land

21 Urban

22 Urban trees

23 Wetland

24 Woodland

25 Wood-pasture & Parkland

1 Coastal

Condition Sheet: COASTAL Habitat Type	
UKHab Habitat Type(s)	
Sparsely vegetated land - Coastal sand dunes **Sparsely vegetated land - Coastal vegetated shingle** **Sparsely vegetated land - Maritime cliff and slopes**	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	The vegetation composition is formed of native species typical of the relevant habitat and present in the typical successional stages, transitions and/or mosaics, at sufficient cover and frequency to meet the definition for the relevant habitat. **NB - this criterion is essential for achieving good condition.**
2	Vegetation structure (sward height variation, zonation) is varied and not uniform.
3	Naturally open ground or bare surfaces are present as part of a sequence of colonisation and succession.
4	Coastal processes needed to support the habitat are functional and are not modified by hard engineering or other forms of negative intervention.
5	The landform reflects the interaction of coastal processes and geology, and there is a varied topography present supporting the relevant range of habitat types.
6	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of species indicative of sub-optimal condition[1] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.
7	Some scattered scrub (including bramble) may be present, but scrub should be less than 10% of area within the grassland/bare substrate matrix. Blocks of scrub or woodland, which might be desirable in their own right, should be classified and mapped separately.
8	Water quality and quantity (e.g. seasonal fluctuations in dune slacks or seepages on cliff slopes) is sufficient to support the range of water-dependent parts of the habitat.

Condition Assessment Result	Condition Assessment Score
Passes 7 or 8 of 8 criteria including essential criterion 1	Good (3)
Passes 5 or 6 of 8 criteria; OR Passes 7 of 8 criteria excluding essential criterion 1	Moderate (2)
Passes 0, 1, 2, 3 or 4 of 8 criteria.	Poor (1)

Footnotes

Footnote 1: General coastal species indicative of sub-optimal condition: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, bramble *Rubus fruticosus*, white willow *Salix alba* hybrids, garden plants.

Grassland species indicative of sub-optimal condition: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, cow parsley *Anthriscus sylvestris*.

Heathland species indicative of sub-optimal condition: bracken *Pteridium aquilinum.*

2 Coastal lagoons

Condition Sheet: COASTAL LAGOONS Habitat Type					
EUNIS Habitat Type(s)					
Coastal lagoons					
Habitat Description					
See Coastal lagoons EUNIS habitat description					
Habitat Attributes to Record					
The following information should be recorded within the condition assessment proforma: • Extent of lagoon water body[1] • Description of presence of typical communities and biotopes • Description of species diversity and community composition[2] • Salinity in parts per thousand (ppt) • Presence and abundance of non-native species • Observations on coastal process functioning and any human physical modifications present • % cover of algal growths that could be attributed to nutrient enrichment. • Presence and density of non-natural structures and direct human impacts • Assessment of litter • Visual record of water clarity • Observations of the functioning and state of the isolating barrier • Observations of the functioning and state of the lagoon banks					
Condition Assessment Criteria					
Indicator		**Good (3 points)**	**Moderate (2 points)**	**Poor (1 point)**	**Score**
1	**Presence and abundance of invasive non-native species**[3]	Not more than 1 invasive non-native species is present at a level of occasional on the SACFOR scale or occupying more than 1% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote.	No invasive non-native species are present above 'Frequent' on the SACFOR scale or they occupy between 1-10% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote for list	One or more invasive non-native species are present at an 'Abundant' level on the SACFOR scale, they occupy more than 10% of the habitat or a high risk species indicative of sub-optimal condition is present – GBNNSS should be notified, see footnote for details.	
2	**Water Quality**	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Seasonality of the assessment should be considered, peak bloom time is July – September.	

3	**Non-natural structures and direct human impacts**	No evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars) or they occupy <1% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying up to 10% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying over >10% of the habitat area.	
4	**Litter (when examining a beach strandline /mean high water line or intertidal rocky shore)**[4]	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0036 m^{-1} min^{-1} $person^{-1}$ equivalent to up to 21 items per person per 100m per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment.	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to between 20 and 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment.	Following the MCS beach litter survey method the number of items of litter exceeds 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to more than 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment.	
5	**Salinity**	Salinity is between 15 - 40 ppt	Salinity values are at the ends of range acceptable for lagoons measured in ppt	Salinity values are either hypersaline >40 ppt or hyposaline <15 ppt	
6	**Isolating barrier**	Fully functional and permitting tidal exchange	Slightly damaged but some water exchange still occurring	Not functioning. No water exchange occurring making the lagoon hyposaline.	
7	**Physical damage of lagoon banks**[5]	No physical damage present	Only small isolated patches of physical damage present	Evidence of significant physical damage	
8	**Water clarity**	Water is clear	Water clarity is reduced	Water is turbid and water clarity is poor (not just after heavy rain)	
				Total score (out of a possible 24)	
Condition Assessment Result					
TOTAL SCORE 18 - 24 (75-100%) **= GOOD CONDITION** **TOTAL SCORE 12 - 17** (50-75%) **= MODERATE CONDITION** **TOTAL SCORE 8 - 11** (0-50%) **= POOR CONDITION**					

Footnotes

Footnote 1 – The extent of the lagoon water body should be recorded at high tide. This should be assessed at the end of the summer (late August – early September) and gives an indication of the amount of water that is present at all times of the year. It should be noted that some lagoons are naturally very shallow.

Footnote 2 - Examples of species adapted to lagoons can be found in Bamber (2010): BAMBER, R.N. (2010) *Coastal saline lagoons and the Water Framework Directive* [online]. Natural England Commissioned Reports, Number 039. Available from: Coastal saline lagoons and the Water Framework Directive - NECR039 (naturalengland.org.uk)
For assessment of species characteristic of anoxic environment, e.g. presence of Capitellid worms, further information on the SACFOR scale can be found on the JNCC website at: JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk)

Footnote 3 - Abundances estimated using SACFOR scales details available here:
JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk)

Use Centre for Environment Fisheries and Aquaculture Science (Cefas) non-native species list available here: STEBBING AND TIDBURY (2019). *Collated new non-native species records for UK from 2003-2014* [online]. Cefas, UK. V1. Available on: Cefas Data Portal - View. Further information can be found on: UK Marine Monitoring and Assessment Strategy (UKMMAS) (No date) *Non-indigenous species* [online]. Available from: Non-indigenous species (cefas.co.uk)

High risk species indicative of sub-optimal condition at time of publication include:
• *Ficopomatus enigmaticus* -Trumpet tube worm
• *Styela clava* - Asian tunicate; leathery sea squirt, club tunicate
• *Corella eumyota* - Orange-tipped sea squirt
• *Grateloupia turuturu* - Devil's tongue weed, gracie, red menace and red tide
• *Undaria pinnatifida - Asian kelp, wakame*
• *Schizoporella japonica - Orange ripple bryozoan*
•*Sargassum muticum - Wire weed*
• *Hemigrapsus sanguineus - Asian shore crab*

Please check for updates of high risk species

Footnote 4 - Please see Nelms et al (2017) for methodological details to identify litter m^{-1} min^{-1} $person^{-1}$.

NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. *Science of The Total Environment* [online], 579. Available from: Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data - ScienceDirect

The indicator thresholds for litter are based on the methods in Van Loon et al. (2020), which is guidance developed within the Common Implementation Strategy for the Marine Strategy Framework Directive by the MSFD Technical Group on Marine Litter.

VAN LOON, W. ET AL. (2020). *A European Threshold Value and Assessment Method for Macro Litter on Coastlines.* EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online] Available from:
(PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)

Footnote 5 - Sources of physical damage include: excessive poaching, damage from machinery use, damaging management or public access activities.

3 Coastal saltmarsh

Condition Sheet: COASTAL SALTMARSH Habitat Type					
EUNIS Habitat Type(s)					
Coastal saltmarshes and saline reed beds Artificial coastal saltmarshes and saline reed beds					
Habitat Description					
See: EUNIS -Factsheet for Coastal saltmarshes and saline reedbeds.					
Habitat Attributes to Record					
The following information should be recorded within the condition assessment proforma: • List of biological communities and species - including whether they are representative or characteristic of disturbance and/or pollution • Observations on coastal process functioning and any human physical modifications present • Observations on zonation and transitions to other habitats, including variations in vegetation structure/sward height[1] • Observations of naturally open ground or bare surfaces such as creeks or pans being present in a mosaic with vegetated areas • Presence and abundance of non-native species • Assessment of litter • % cover of algal growths that could be attributed to nutrient enrichment					
Condition Assessment Criteria					
Indicator		**Good (3 points)**	**Moderate (2 points)**	**Poor (1 point)**	**Score per indicator**
1	**Coastal processes**	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat	
2	**Presence and abundance of invasive non-native species[2]**	Not more than 1 invasive non-native species is present at a level of occasional on the SACFOR scale or occupying more than 1% of the habitat. No high risk species indicative of sub-optimal condition present, see foot note.	No invasive non-native species are present above 'Frequent' on the SACFOR scale or they occupy between 1-10% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote for list	One or more invasive non-native species are present at an 'Abundant' level on the SACFOR scale, they occupy more than 10% of the habitat or a high risk species indicative of sub-optimal condition is present – GBNNSS should be notified, see footnote for details.	

3	**Water Quality**	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Seasonality of the assessment should be considered, peak bloom time is July – September.	
4	**Non-natural structures and direct human impacts**	No evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars) or they occupy <1% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying up to 10% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying over >10% of the habitat area.	
5	**Litter (when examining a beach strandline /mean high water line or intertidal rocky shore)**	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0036 m^{-1} min^{-1} $person^{-1}$ equivalent to up to 21 items per person per 100m per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[3].	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to between 20 and 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[3].	Following the MCS beach litter survey method the number of items of litter exceeds 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to more than 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[3].	

6	**Zonation and transition to other habitats[3]**	Zonation of vegetation/ communities is clear and continuous. Distribution of the feature and transition to other habitats, including associated transitional habitats, within the site is reflective of expected natural distribution seaward and landward	Up to 2 of the expected zones are absent or significantly impacted by human modification of the shoreline and transitions to other habitats are restricted in less than 20% of the habitat boundaries.	Zonation of vegetation/ communities is not clearly visible or is significantly impacted by human modification of the shoreline. Or transitions to other habitats are restricted in more than 20% of the habitat boundaries.	
				Total score (out of a possible 18)	
Condition Assessment Result					
TOTAL SCORE 14 - 18 (75-100%) **= GOOD CONDITION** **TOTAL SCORE 9 - 13** (50-75%) **= MODERATE CONDITION** **TOTAL SCORE 6 - 8** (0-50%) **= POOR CONDITION**					

Footnotes

Footnote 1 - Assessment of grazing levels:
• light grazing - most of the standing crop is not removed
• moderate grazing - standing crop almost completely removed
• heavy grazing - height < 10 cm, all standing crop removed
• abandoned grazing – tall, matted vegetation, no standing crop removed

Footnote 2 - Abundances estimated using SACFOR scales details available here: JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk)
Use Cefas non-native species list available here: STEBBING AND TIDBURY (2019). *Collated new non-native species records for UK from 2003-2014* [online]. Cefas, UK. V1. Available on: Cefas Data Portal - View . Further information can be found on: UK Marine Monitoring and Assessment Strategy (UKMMAS) (No date) *Non-indigenous species* [online]. Available from: Non-indigenous species (cefas.co.uk)
High risk species indicative of sub-optimal condition at time of publication include:
• *Hemigrapsus* spp. – Asian Shore crabs (*H. sanguineus*, *H. takanoi* or *H. penicillatus*)
Please check for updates of high risk species

Footnote 3 - Please see Nelms et al. (2017) for methodological details to identify litter m^{-1} min^{-1} $person^{-1}$.
NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. *Science of The Total Environment* [online], 579. Available from: Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data - ScienceDirect

The indicator thresholds for litter are based on the methods in Van Loon et al (2020), which is guidance developed within the Common Implementation Strategy for the Marine Strategy Framework Directive by the MSFD Technical Group on Marine Litter.

VAN LOON, W. ET AL. (2020). *A European Threshold Value and Assessment Method for Macro Litter on Coastlines.* EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online] Available from:
(PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)

Footnote 4 - Vegetation zones can be described differently but these are the most likely to be found (seaward to landward):

1. Pioneer Open communities with one or more of the following – *Spartina* spp., *Salicornia* spp., *Aster tripolium*. Zone covered by all tides except the lowest neap tides. 290-c.600 submersions per year.
2. Low marsh (generally closed communities with at least *Puccinellia maritima* and *Atriplex portulacoides* as well as the previous species; zone covered by most tides.350-400 submergences per year) and middle marsh (generally closed communities with *Limonium* spp. and/or *Plantago maritima*, as well as low marsh species; Zone covered only by spring tides. 150 to 220 submergences per year)
4. High marsh Generally closed communities with one or more of the following – *Festuca rubra*, *Armeria maritima*, *Elytrigia* spp., as well as the middle marsh species. Zone covered only by highest spring tides. Minimum 25 submergences, maximum 150 submergences per year.
5. Transition zone Vegetation intermediate between the high marsh and adjoining non-halophytic areas. Zone covered only occasionally during extreme storm events but can have salt spray influence from strong onshore winds.

4 Ditch

Condition Sheet: DITCH Habitat Type	
UKHab Habitat Type(s)	
Rivers and streams - Ditches	
Habitat Description	
Artificially created, linear water-conveyancing features that are less than 5 m wide and likely to retain water for more than 4 months of the year. Their hydraulic function is primarily for land drainage, and although partially or fully connected to a river system, they would not have been present without human intervention' *[Note: some heavily engineered ditches may actually be part of the river system (usually part of the headwater system). If there is uncertainty, consult historic maps, LIDAR data and riverine specialists]*	
Condition Assessment Criteria	
1	The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.
2	A range of emergent, submerged and floating leaved plants are present. As a guide >10 species of emergent, floating or submerged plants in a 20 m ditch length.
3	There is less than 10% cover of filamentous algae and/or duckweed (these are signs of eutrophication).
4	A fringe of marginal vegetation is present along more than 75% of the ditch.
5	Physical damage evident along less than 5% of the ditch, such as excessive poaching, damage from machinery use or storage, or any other damaging management activities.
6	Sufficient water levels are maintained; as a guide a minimum summer depth of approximately 50 cm in minor ditches and 1 m in main drains.
7	Less than 10% of the ditch is heavily shaded.
8	There is an absence of non-native plant and animal species[1].

Condition Assessment Result	Condition Assessment Score
Passes 8 of 8 criteria	Good (3)
Passes 6 or 7 of 8 criteria	Moderate (2)
Passes 0, 1, 2, 3, 4 or 5 of 8 criteria	Poor (1)

Footnotes

Footnote 1 - Any species included on the Water Framework Directive UKTAG GB High Impact Species List should be absent: WFD UKTAG (2021) *Classification of aquatic alien species according to their level of impact* [online]. Available from: UKTAG classification of alien species working paper v8.pdf (wfduk.org)

• Frequently occurring non-native plant species include water fern *Azolla spp.,* Australian swamp stonecrop *Crassula helmsii*, parrot's feather *Myriophyllum aquaticum*, floating pennywort *Hydrocotyle ranunculoides,* Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum* (on the bank).

• Frequently occurring non-native animals include signal crayfish *Pacifastacus leniusculus*, zebra mussels *Dreissena polymorpha*, killer shrimp *Dikerogammarus villosus*, demon shrimp *Dikerogammarus haemobaphes,* carp *Cyprinus carpio*.

5 Grassland – Low Distinctiveness

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)	
UKHab Habitat Type(s)	
Grassland - Modified grassland	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	There must be 6-8 species per m^2. If a grassland has 9 or more species per m^2 it should be classified as a medium distinctiveness grassland habitat type. **NB - this criterion is essential for achieving moderate condition.**
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.
4	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).
6	Cover of bracken is less than 20%.
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).

Condition Assessment Result	Condition Assessment Score
Passes 6 or 7 of 7 criteria including passing essential criterion 1	Good (3)
Passes 4 or 5 of 7 criteria including passing essential criterion 1	Moderate (2)
Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria (but failing criterion 1)	Poor (1)

6 Grassland – Medium, High & Very High Distinctiveness

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)	
UKHab Habitat Type(s)	
Grassland - Lowland calcareous grassland **Grassland - Lowland dry acid grassland** **Grassland - Lowland meadows** **Grassland - Other lowland acid grassland** **Grassland - Other neutral grassland** **Grassland - Tall herb communities (H6430)** [Note Tall herb habitat that does not meet the Annex 1 definition should be recorded as "Other neutral grassland"] **Grassland - Upland acid grassland** **Grassland - Upland calcareous grassland** **Grassland - Upland hay meadows** **Sparsely vegetated land - Calaminarian grassland**	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. **NB - This criterion is essential for achieving moderate condition for non-acid grassland types only.**
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
3	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.
4	Cover of bracken is less than 20% and cover of scrub (including bramble) is less than 5%.
5	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of species indicative of sub-optimal condition[1] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.
Additional Group (Non-acid types only)	
6	There are greater than 9 species per metre squared. **NB - This criterion is essential for achieving good condition (non-acid grassland types only).**

Condition Assessment Result	Condition Assessment Score
Acid Grassland Types	
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)
Non-acid grassland Types	
Passes 5 of 6 criteria, including essential criterion 1 and 6.	Good (3)
Passes 3 or 4 of 6 criteria, including essential criterion 1.	Moderate (2)
Passes 0, 1, 2 criteria of 6 criteria; OR Passes 3 or 4 criteria excluding criterion 1 and 6	Poor (1)

Footnotes
Footnote 1 - Species indicative of sub-optimal condition for this habitat type include: Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris.*

7 Heathland

Condition Sheet: HEATHLAND Habitat Type	
UKHab Habitat Type(s)	
Heathland and shrub - Lowland heathland **Heathland and shrub - Mountain heaths and willow scrub** **Heathland and shrub - Upland heathland**	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	The appearance and composition of the vegetation closely matches characteristics of the specific heathland habitat type (see UKHab definition linked above). Indicator shrubs, grasses, herbs and lower plants for the specific heathland habitat type are very clearly and easily visible. **NB - this criterion is essential for achieving good condition.**
2	There are at least two dwarf shrub species frequent, and cover of dwarf shrubs is between 25-75% for Lowland heathland, 50-75% for upland dry heath, or >20% for upland wet heath. **NB - this criterion is essential for achieving good condition.**
3	All age classes (pioneer, degenerate and mature) present with at least 10% pioneer heather in the lowlands or at least 10% degenerate/mature in the uplands. **NB - this criterion is essential for achieving good condition.**
4	Unshaded bare ground is between 1-10%. **NB - this criterion is essential for achieving good condition.**
5	No signs disturbance of sensitive areas[1], including managed burns.
6	No more than 33% of heather shoots should be grazed, or flowering heather plants are at least frequent in autumn.
7	There is an absence of invasive non-native species listed on Schedule 9 of WCA, 1981, or shallon *Gaultheria shallon,* and there is less than 5% cover of bracken *Pteridium aquilinum*[2]*.*
8	Cover of scattered trees and/or scrub[3] should be less than 20% for upland heaths; less than 15% for lowland dry heaths; and less than 10% for lowland wet heaths.
9	No signs of any damaging activites[4] or contamination to the habitat such as: artificial drains, peat extraction, silt, leachate or eutrophication.

Condition Assessment Result	Condition Assessment Score
Passes 8 or 9 of 9 criteria including all essential criteria 1-4	Good (3)
Passes 6 or 7 of 9 criteria; OR Passes 8 of 9 criteria excluding any of the essential criteria 1-4	Moderate (2)
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)

Footnotes

Footnote 1 - Sensitive areas definition:

(a) Vegetation severely wind-clipped, mostly forming a mat less than 10 cm thick.(b) Areas where soils are thin and less than 5 cm deep.
(c) Hill slopes greater than 1 in 2 (26°), and all the sides of gullies.
(d) Ground with abundant, and/or an almost continuous carpet of sphagnum, bilberry, liverworts and/or lichens.
(e) Areas with noticeably uneven structure, at a spatial scale of around 1 m2 or less. The unevenness (e.g. more commonly found in very old heather stands) will relate to distinct, often large, spreading dwarf-shrub bushes. The dwarf-shrub canopy will not be completely continuous, and some of its upper surface may be twice as high as other parts. Layering is likely to be present and may be common
(f) Pools, wet hollows, haggs and erosion gullies, and within 10 m of the edge of watercourses.

Footnote 2 - Cover of bracken *Pteridium aquilinum* may exceed 5% where there is an identified biodiversity benefit e.g. bracken beds in the South Pennines as nesting sites for Twite *Linaria flavirostris.*

Footnote 3 - N.B. Total *Ulex* spp. cover should be less than 50%, with common gorse *Ulex europaeus* less than 25% in the lowland heaths.

Footnote 4 - Damaging activities include: accidental or unmanaged fires, managed fires on wet heath, excessive poaching, damage from machinery use or storage, damaging levels of-public access resulting in trampling and/or litter.

8 Hedgerow

UKHab Habitat Type		
Native hedgerow **Native hedgerow - associated with bank or ditch** **Native hedgerow with trees** **Native hedgerow with trees - associated with bank or ditch** **Native species rich hedgerow** **Native species rich hedgerow - associated with bank or ditch** **Native species rich hedgerow with trees** **Native species rich hedgerow with trees - associated with bank or ditch**		
Habitat Description		
See Table TS1-3		
Condition Assessment Criteria		
A series of ten attributes, representing key physical characteristics, are used for this assessment. The attributes, and the minimum criteria for achieving a favourable condition in each, are defined. The attributes use similar favourable condition criteria to the Hedgerow Survey Handbook and the handbook is the recommended source of reference for assessing individual hedgerow attributes.		
Hedgerow favourable condition attributes		
Attributes and functional groupings (A, B, C, D & E)	**Criteria (the minimum requirements for 'favourable condition'**	**Description**
Core groups - applicable to all hedgerow types		
A1. Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is > 1.5 m height).
A2. Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice[4]).
B1. Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	This is the vertical gappiness of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).

B2.	Gap - hedge canopy continuity	· Gaps make up <10% of total length and · No canopy gaps >5 m	This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall gappiness, but are not subject to the >5 m criterion (as this is the typical size of a gate).
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · measured from outer edge of hedgerow, and · is present on one side of the hedge (at least)	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedge. Undisturbed ground should be present for at least 90% of the hedgerow length, greater than 1m in width and must be present along at least one side of the hedge. This criterion recognises the value of the hedge base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	The indicator species used are nettles (*Urtica* spp.), cleavers (*Galium aparine*) and docks (*Rumex* spp.). Their presence, either singly or together, should not exceed the 20% cover threshold.
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website and for information on invasive non-native species see the GB Non-Native Secretariat website.
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g., excessive hedge cutting).

Additional group - applicable to hedgerows with trees only		
E1. Tree age	At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	This criterion addresses if there are sufficient mature trees (within the scope of planning timescales) which are of higher value to biodiversity.
E2. Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.

Condition categories for hedgerows without trees		
Category	**Maximum number of attributes that can fail to meet 'favourable condition' criteria in Table TS1-2**	**Metric Score**
Good	No more than 2 failures in total; **AND** No more than 1 in any functional group.	3
Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (e.g., fails attributes A1, A2, B1 & B2 = Poor condition).	1

Condition categories for hedgerows with trees		
Category	**Maximum number of attributes that can fail to meet 'favourable condition' criteria in Table TS1-2**	**Metric score**
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (e.g., fails attributes A1, A2, B1, C2 & E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	1

9 Intertidal biogenic reefs

Condition Sheet: INTERTIDAL BIOGENIC REEFS Habitat Type

EUNIS Habitat Type(s)

Littoral biogenic reefs
Artificial littoral biogenic reefs

Habitat Description

See JNCC biotope habitat description

Habitat Attributes to Record

The following information should be recorded within the condition assessment proforma:
• % cover of recognisable biogenic reef structures across the bed
• Distribution of the habitat seaward and landward limits and extent should be recorded
• Description of presence of typical communities and biotopes
• Description of species diversity and community composition
• Observations on coastal process functioning and any human physical modifications present
• Presence and abundance of non-native species
• % cover of algal growths that could be attributed to nutrient enrichment
• Presence and density of non-natural structures and direct human impacts
• Assessment of litter
• Is the habitat distribution constrained by human modification?
• WFD classification of overlying water

Condition Assessment Criteria

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator
1	**Coastal processes**	Coastal processes are functioning naturally. No evidence of human physical modifications which are impacting the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat	
2	**Presence and abundance of invasive non-native species**[1]	Not more than 1 invasive non-native species is present at a level of occasional on the SACFOR scale or occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see foot note.	No invasive non-native species are present above 'Frequent' on the SACFOR scale or they occupy between 1-10% of the habitat. No high-risk species indicative of sub-optimal condition present, see footnote for list	One or more invasive non-native species are present at an 'Abundant' level on the SACFOR scale, they occupy more than 10% of the habitat or a high-risk species indicative of sub-optimal condition is present – GBNNSS should be notified, see footnote for details.	

3	**Water Quality**	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Seasonality of the assessment should be considered; peak bloom time is July – September.	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Seasonality of the assessment should be considered; peak bloom time is July – September.	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Seasonality of the assessment should be considered; peak bloom time is July – September.	
4	**Non-natural structures and direct human impacts**	No evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars) or they occupy <1% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying up to 10% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying over >10% of the habitat area.	
5	**Litter (when examining a beach strandline /mean high water line or intertidal rocky shore)**	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0036 m^{-1} min^{-1} $person^{-1}$ equivalent to up to 21 items per person per 100m per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to between 20 and 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter exceeds 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to more than 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	
				Total score (out of a possible 15)	
Condition Assessment Result					
TOTAL SCORE 12-15 (75-100%) **= GOOD CONDITION** **TOTAL SCORE 8-11** (50-75%) **= MODERATE CONDITION** **TOTAL SCORE 5-7** (0-50%) **= POOR CONDITION**					

Footnotes

Footnote 1 - Abundances estimated using SACFOR scales details available here: JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk)
Use Cefas non-native species list available here: STEBBING AND TIDBURY (2019). *Collated new non-native species records for UK from 2003-2014* [online]. Cefas, UK. V1. Available on: Cefas Data Portal - View . Further information can be found on: UK Marine Monitoring and Assessment Strategy (UKMMAS) (No date) *Non-indigenous species* [online]. Available from: Non-indigenous species (cefas.co.uk)
High risk species indicative of sub-optimal condition at time of publication include:
• *Didemnum vexillum* – Carpet sea squirt
• *Hemigrapsus spp.* – Asian Shore crabs (*H. sanguineus*, *H. takanoi* or *H. penicillatus*)
Please check for updates of high risk species

Footnote 2 - Please see Nelms et al (2017) for methodological details to identify litter m^{-1} min^{-1} $person^{-1}$.
NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. *Science of The Total Environment* [online], 579. Available from: Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data - ScienceDirect
The indicator thresholds for litter are based on the methods in Van Loon et al (2020), which is guidance developed within the Common Implementation Strategy for the Marine Strategy Framework Directive by the MSFD Technical Group on Marine Litter.
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(PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)

10 Intertidal hard structures

Condition Sheet: INTERTIDAL HARD STRUCTURES Habitat Type

ARTIFICIAL Habitat Type(s)

Intertidal artificial hard structures
Intertidal artificial features of hard structures
Intertidal artificial hard structures with Integrated Greening of Grey Infrastructure (IGGI)

Habitat Description

Artificial hard structures are man-made structures fulfilling a range of functions (e.g. coastal defences, port, harbour and marina installations, energy infrastructure, aquaculture). They can be made of various hard materials (artificial or natural rock, wood, plastics, metal) that would not normally be found in the area they are being deployed.

Habitat Attributes to Record

The following information should be recorded within the condition assessment proforma:
• Description of presence of typical communities and biotopes
• Description of species diversity and community composition
• Presence and abundance of non-native species
• Observations on coastal process functioning and any human physical modifications present
• % cover of algal growths that could be attributed to nutrient enrichment
• WFD classification of overlying water
• Assessment of litter

Condition Assessment Criteria

	Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator
1	**Coastal processes**	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.	
2	**Presence and abundance of invasive non-native species**[1]	Not more than 1 invasive non-native species is present at a level of occasional on the SACFOR scale or occupying more than 1% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote.	No invasive non-native species are present above 'Frequent' on the SACFOR scale or they occupy between 1-10% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote for list.	One or more invasive non-native species are present at an 'Abundant' level on the SACFOR scale, they occupy more than 10% of the habitat or a high risk species indicative of sub-optimal condition is present – GBNNSS should be notified, see footnote for details.	

3	**Water Quality**	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Seasonality of the assessment should be considered, peak bloom time is July – September.	
4	**Litter (when examining a beach strandline /mean high water line or intertidal rocky shore)**	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0036 m^{-1} min^{-1} $person^{-1}$ equivalent to up to 21 items per person per 100m per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to between 20 and 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter exceeds 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to more than 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	
5	**Amount of colonisation**	More than three different faunal and floral communities present.	Two or three different faunal/flora communities present.	One or no faunal/flora communities present.	
				Total score (out of a possible 15)	
Condition Assessment Result					
TOTAL SCORE 12-15 (75-100%) **= GOOD CONDITION** **TOTAL SCORE 8-11** (50-75%) **= MODERATE CONDITION** **TOTAL SCORE 5-7** (0-50%) **= POOR CONDITION**					

Footnotes
Footnote 1 - Abundances estimated using SACFOR scales details available here: JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk) High risk species indicative of sub-optimal condition at time of publication include: • *Didemnum vexillum* – Carpet sea squirt • *Hemigrapsus spp.* – Asian Shore crabs (*H. sanguineus*, *H. takanoi* or *H. penicillatus*) • *Ficopomatus enigmaticus* Trumpet tube worm • *Corella eumyota* – Orange-tipped sea squirt • *Grateloupia turuturu* – Devil's tongue weed, gracie, red menace and red tide • S*chizoporella japonica* – Orange ripple bryozoan Please check for updates of high risk species **Footnote 2** - Please see Nelms et al (2017) for methodological details to identify litter m^{-1} min^{-1} $person^{-1}$. NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. *Science of The Total Environment* [online], 579. Available from: Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data - ScienceDirect The indicator thresholds for litter are based on the methods in Van Loon et al (2020), which is guidance developed within the Common Implementation Strategy for the Marine Strategy Framework Directive by the MSFD Technical Group on Marine Litter. VAN LOON, W. ET AL. (2020). *A European Threshold Value and Assessment Method for Macro Litter on Coastlines.* EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online] Available from: (PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)

11 Intertidal seagrass

Condition Sheet: INTERTIDAL SEAGRASS Habitat Type

UKHab Habitat Type(s)

Intertidal sediment - Littoral seagrass
Intertidal sediment - Littoral seagrass - on peat, clay or chalk
Intertidal sediment - Artificial littoral seagrass

Habitat Description

See JNCC littoral seagrass bed habitat description

Habitat Attributes to Record

The following information should be recorded within the condition assessment proforma:
• % cover of seagrass across the bed
• Distribution of the seagrass landward, seaward and extent should be recorded
• Description of presence of typical communities and biotopes
• Description of species diversity and community composition
• Observations on coastal process functioning and any human physical modifications present
• Presence and abundance of non-native species
• % cover of algal growths that could be attributed to nutrient enrichment
• WFD classification of overlying water
• Presence and density of non-natural structures and direct human impacts
• Assessment of litter
• Evidence of visible rhizomes

Condition Assessment Criteria

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator
1	**Coastal processes**	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat	
2	**Presence and abundance of invasive non-native species**[1]	Not more than 1 invasive non-native species is present at a level of occasional on the SACFOR scale or occupying more than 1% of the habitat. No high risk species indicative of sub-optimal condition present, see foot note.	No invasive non-native species are present above 'Frequent' on the SACFOR scale or they occupy between 1-10% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote for list	One or more invasive non-native species are present at an 'Abundant' level on the SACFOR scale, they occupy more than 10% of the habitat or a high risk species indicative of sub-optimal condition is present – GBNNSS should be notified, see footnote for details.	

3	**Water Quality**	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Seasonality of the assessment should be considered, peak bloom time is July – September.	
4	**Non-natural structures and direct human impacts**	No evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars) or they occupy <1% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying up to 10% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying over >10% of the habitat area.	
5	**Litter (when examining a beach strandline /mean high water line or intertidal rocky shore)**	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0036 m^{-1} min^{-1} $person^{-1}$ equivalent to up to 21 items per person per 100m per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to between 20 and 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter exceeds 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to more than 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	
				Total score (out of a possible 15)	
Condition Assessment Result					
TOTAL SCORE 12-15 (75-100%) **= GOOD CONDITION** **TOTAL SCORE 8-11** (50-75%) **= MODERATE CONDITION** **TOTAL SCORE 5-7** (0-50%) **= POOR CONDITION**					

Footnotes

*essential attribute the habitat overall cannot score higher than it does for this attribute.

Footnote 1 - Abundances estimated using SACFOR scales details available here: JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk)
High risk species indicative of sub-optimal condition at time of publication include:
• *Didemnum vexillum* – Carpet sea squirt
• *Hemigrapsus spp*. – Asian Shore crabs (*H. sanguineus, H. takanoi* or *H. penicillatus*)
• *Eriocheir sinensis* – Chinese mitten crab
Please check for updates of high risk species

Footnote 1 - Please see Nelms et al (2017) for methodological details to identify litter m^{-1} min^{-1} $person^{-1}$.
NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. *Science of The Total Environment* [online], 579. Available from: Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data - ScienceDirect
The indicator thresholds for litter are based on the methods in Van Loon et al (2020), which is guidance developed within the Common Implementation Strategy for the Marine Strategy Framework Directive by the MSFD Technical Group on Marine Litter.
VAN LOON, W. ET AL. (2020). *A European Threshold Value and Assessment Method for Macro Litter on Coastlines.* EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online] Available from:
(PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)

12 Intertidal sediment

Condition Sheet: INTERTIDAL SEDIMENT Habitat Type

EUNIS Habitat Type(s)

Littoral coarse sediment
Littoral sand
Littoral muddy sand
Littoral mud
Littoral mixed sediments
Features of littoral sediment
Artificial littoral coarse sediment
Artificial littoral mixed sediments
Artificial littoral mud
Artificial littoral muddy sand
Artificial littoral sand

Habitat Description

See EUNIS littoral sediment description

Habitat Attributes to Record

The following information should be recorded within the condition assessment proforma:
• Description of sediment character
• Description of presence of typical communities and biotopes
• Description of species diversity and community composition
• Observations on coastal process functioning and any human physical modifications present
• Observations on transitions to other habitats
• Assessment of litter
• % cover of algal growths that could be attributed to nutrient enrichment
• WFD classification of overlying water
• Description of zonation

Condition Assessment Criteria

	Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator
1	**Coastal processes**	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat	

2	**Presence and abundance of invasive non-native species[1]**	Not more than 1 invasive non-native species is present at a level of occasional on the SACFOR scale or occupying more than 1% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote.	No invasive non-native species are present above 'Frequent' on the SACFOR scale or they occupy between 1-10% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote for list.	One or more invasive non-native species are present at an 'Abundant' level on the SACFOR scale, they occupy more than 10% of the habitat or a high risk species indicative of sub-optimal condition is present – GBNNSS should be notified, see footnote for details.	
3	**Water Quality**	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Seasonality of the assessment should be considered, peak bloom time is July – September.	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Seasonality of the assessment should be considered, peak bloom time is July – September.	
4	**Non-natural structures and direct human impacts**	No evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars) or they occupy <1% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying up to 10% of the habitat area	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying over >10% of the habitat area.	
5	**Litter (when examining a beach strandline /mean high water line or intertidal rocky shore)**	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0036 m^{-1} min^{-1} $person^{-1}$ equivalent to up to 21 items per person per 100m per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to between 20 and 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	Following the MCS beach litter survey method the number of items of litter exceeds 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to more than 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[2].	
				Total score (out of a possible 15)	
Condition Assessment Result					
TOTAL SCORE 12-15 (75-100%) **= GOOD CONDITION** **TOTAL SCORE 8-11** (50-75%) **= MODERATE CONDITION** **TOTAL SCORE 5-7** (0-50%) **= POOR CONDITION**					

Footnotes

Footnote 1 - Abundances estimated using SACFOR scales details available here: JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk)

Use Cefas non-native species list available here: STEBBING AND TIDBURY (2019). *Collated new non-native species records for UK from 2003-2014* [online]. Cefas, UK. V1. Available on: Cefas Data Portal - View . Further information can be found on: UK Marine Monitoring and Assessment Strategy (UKMMAS) (No date) *Non-indigenous species* [online]. Available from: Non-indigenous species (cefas.co.uk)

High risk species indicative of sub-optimal condition at time of publication include:
Intertidal coarse sediment A2.1:
• *Ficopomatus enigmaticus* Trumpet tube worm
• *Styela clava* Asian tunicate; leathery sea squirt, club tunicate
• *Corella eumyota* Orange-tipped sea squirt
• *Grateloupia turuturu* Devil's tongue weed, gracie, red menace and red tide
Intertidal mixed sediment A2.4:
• *Ficopomatus enigmaticus* Trumpet tube worm

Always check for updates of high risk species

Footnote 2 - Please see Nelms et al (2017) for methodological details to identify litter m^{-1} min^{-1} $person^{-1}$.

NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. *Science of The Total Environment* [online], 579. Available from: Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data - ScienceDirect

The indicator thresholds for litter are based on the methods in Van Loon et al (2020), which is guidance developed within the Common Implementation Strategy for the Marine Strategy Framework Directive by the MSFD Technical Group on Marine Litter.

VAN LOON, W. ET AL. (2020). *A European Threshold Value and Assessment Method for Macro Litter on Coastlines.* EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online] Available from:
(PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)

13 Lake

Condition Sheet: LAKE Habitat Type	
UKHab Habitat Type(s)	
Lakes - Aquifer fed naturally fluctuating waterbodies **Lakes - High alkalinity lakes** **Lakes - Low alkalinity lakes** **Lakes - Marl lakes** **Lakes - Moderate alkalinity lakes** **Lakes - Peat lakes** **Lakes - Reservoirs** **Lakes - Temporary lakes, ponds and pools** [Use this condition sheet for Temporary lakes, or use Pond condition sheet for Temporary ponds and pools]	
Habitat Description	
See WFD Lakes typologies description For '**Aquifer fed naturally fluctuating waterbodies**', '**Reservoirs**' and '**Temporary lakes, ponds and pools**' see: UKHab	
Condition Assessment Criteria	
The Freshwater Biological Association 'Habitat Naturalness Assessment' is used to assess the condition of lakes. Scores for four attributes (physical, hydrological, chemical, and biological naturalness) are averaged to generate an overall 'habitat naturalness assessment score' which can then be translated into a condition score for use in Biodiversity metric 3.1 (see below). There are other elements considered in the lake naturalness assessment but these are not included when calculating the condition assessment score. Details of the methodology for assessing naturalness of lakes are available at: http://priorityhab.wpengine.com/contribute/	
The key documents are: Lake-Naturalness-Assessment-Guidance-3.pdf (priorityhabitats.org) Lakes-print-out-naturalness-form-2.pdf (priorityhabitats.org) Annex-II-Physical-Naturalness-Photographs.pdf (wpengine.com) Annex-III-Hydrological-naturalness-photographs.pdf (wpengine.com) Annex-IV-Chemical-Naturalness.pdf (wpengine.com) Annex-V-Plant-Functional-Group-pictures.pdf (wpengine.com) Annex-VI-Further-Species-Recording-1.pdf (priorityhabitats.org)	
We encourage recording of data on lakes on the Freshwater Biological Association 'Habitat Naturalness Assessment' website portal: http://priorityhab.wpengine.com/contribute/	
Average 'Habitat Naturalness Assessment' Class	**Condition Assessment Score**
1 Natural	Good (3)
2	Fairly good (2.5)
3	Moderate (2)
4	Fairly poor (1.5)
5 Least natural	Poor (1)

14 Limestone Pavement

Condition Sheet: LIMESTONE PAVEMENT Habitat Type	
UKHab Habitat Type(s)	
Sparsely vegetated land - Limestone pavement	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	Cover of typical emergent pavement flora and clint-top vegetation should account for at least 25% of total vegetation cover (i.e. excluding bare rock).
2	Cover of species indicative of sub-optimal condition less than 1%.
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition[1] make up less than 5% of vegetated ground cover.
4	Less than 25% of live leaves (broadleaved plants), fronds (ferns) or shoots (dwarf shrubs) show signs of grazing or browsing.
5	There should be no evidence of damage to the pavement surface.

Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 4 of 5 criteria	Moderate (2)
Passes 0, 1, 2 or 3 of 5 criteria	Poor (1)

Footnotes

Footnote 1 - Species indicative of sub-optimal condition for this habitat type include: perennial rye grass *Lolium perenne*, false oat-grass *Arrhenatherum elatius*, crested dog's-tail *Cynosurus cristatus*, bramble *Rubus fruticosus*, creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common ragwort *Jacobaea vulgaris*, common nettle *Urtica dioica,* other pernicious perennial species.

15 Line of Trees

Condition Sheet: LINE OF TREES Habitat Type	
UKHab Habitat Type(s)	
Line of trees **Line of trees – associated with bank or ditch** **Line of trees (ecologically valuable)** **Line of trees (ecologically valuable) – associated with bank or ditch**	
Habitat Description	
See Chapter 8 of User Guide	
Condition Assessment Criteria	
1	More than 70% of trees are native species.
2	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.
3	Includes one or more mature[1] or veteran[2] tree.
4	There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations.
5	At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.

Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)

Footnotes

Footnote 1 - A mature tree in this context is one that is at least 2/3 expected fully mature height for the species.

Footnote 2 - All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features:

1. Rot sites associated with wounds which are decaying >400 cm^2;
2. Holes and water pockets in the trunk and mature crown >5 cm diameter;
3. Dead branches or stems >15 cm diameter;
4. Any hollowing in the trunk or major limbs;
5. Fruit bodies of fungi known to cause wood decay

16 Orchard

Grassland - Traditional orchard	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	Presence of ancient[1] and / or veteran[2] trees. **NB - this criterion is essential for achieving good condition.**
2	Less than 5% of fruit trees are smothered by scrub. Small patches of dense scrub and/or scattered scrub growing between trees can be beneficial to biodiversity, however these should occupy less than 10% of ground cover.
3	There is evidence of formative and/or restorative pruning to maintain longevity of trees.
4	Presence of standing and/or fallen dead wood: all mature trees have standing or fallen branches, stems and stumps greater than 10 cm diameter associated with them.
5	At least 95% of the trees are free from damage caused by humans or animals e.g. browsing, bark stripping or rubbing on non-adjusted ties.
6	Sward height is varied (between 5 cm and 30 cm) and small patches of bare ground are present creating structural diversity. Up to 10% cover of patches of tall herb vegetation may be present.
7	Species richness of the grassland is equivalent to a medium, high, or very high distinctiveness grassland.
8	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition[3] make up less than 10% of ground cover.

Condition Assessment Result	Condition Assessment Score
Passes 6, 7 or 8 of 8 criteria, including essential criterion 1	Good (3)
Passes 4 or 5 of 8 criteria; OR Passes 6 or 7 of 8 criteria, excluding essential criterion 1	Moderate (2)
Passes 0, 1, 2 or 3 of 8 criteria	Poor (1)

Footnotes

Footnote 1 - Ancient trees are exceptionally valuable. Attributes can include: its great age in comparison with other trees of the same species; size, especially very wide trunk; condition; biodiversity value as a result of significant wood decay and the habitat created from the ageing process; and cultural and heritage value. Very few trees of any species become ancient.
Ancient trees can be classified using the following girth guide at 1.5 m from the ground:

- >2.5m for field maple, rowan, yew, birch, holly and other smaller tree species;
- >4m for oaks, ash, Scot's pine, alder;
- >4.5m for sycamore, lime, horse chestnut, sweet chestnut, elm species, poplar species, beech, willows, other pines and exotics.

Footnote 2 - All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features:

1. Rot sites associated with wounds which are decaying >400 cm^2;
2. Holes and water pockets in the trunk and mature crown >5 cm diameter;
3. Dead branches or stems >15 cm diameter;
4. Any hollowing in the trunk or major limbs;
5. Fruit bodies of fungi known to cause wood decay.

Footnote 3 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica.*

17 Pond

Condition Sheet: POND Habitat Type	
UKHab Habitat Type(s)	
Lakes - Ponds (priority habitat) **Lakes - Ponds (non-priority habitat)** **Lakes - Temporary lakes, ponds and pools** [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes] **Lakes - Ornamental lake or pond** [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]	
Habitat Description	
See UKHab Other than for non-priority ponds, which are those which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds	
Condition Assessment Criteria	
CORE CRITERIA - applicable to all ponds (woodland[1] and non-woodland):	
1	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.
2	There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.
3	Less than 10% of the pond is covered with duckweed or filamentous algae.
4	The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.
5	Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.
6	There is an absence of non-native plant and animal species[2].
7	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:	
8	In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds)[3], should cover at least 50% of the pond area that is less than 3 m deep.
9	The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.

Condition Assessment Result	Condition Assessment Score
If 8 criteria assessed (woodland ponds):	
Passes 7 of 7 criteria	Good (3)
Passes 5 or 6 of 7 criteria	Moderate (2)
Passes 0, 1, 2, 3 or 4 of 7 criteria	Poor (1)
If 10 criteria assessed (non-woodland ponds):	
Passes 9 of 9 criteria	Good (3)
Passes 6, 7 or 8 of 9	Moderate (2)
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)

Footnotes

Footnote 1 - A woodland pond will be surrounded on all sides by woodland habitat.

Footnote 2 - Any species included on the Water Framework Directive UKTAG GB High Impact Species List should be absent: WFD UKTAG (2021) *Classification of aquatic alien species according to their level of impact* [online]. Available from: UKTAG classification of alien species working paper v8.pdf (wfduk.org)

• Frequently occurring non-native plant species include water fern *Azolla spp.,* Australian swamp stonecrop *Crassula helmsii*, parrot's feather *Myriophyllum aquaticum*, floating pennywort *Hydrocotyle ranunculoides* and Japanese knotweed *Fallopia japonica,* giant hogweed *Heracleum mantegazzianum* (on the bank).
• Frequently occurring non-native animals include signal crayfish *Pacifastacus leniusculus*, zebra mussels *Dreissena polymorpha*, killer shrimp *Dikerogammarus villosus*, demon shrimp *Dikerogammarus haemobaphes,* carp *Cyprinus carpio*.

Footnote 3 - If the pond is seasonal (i.e. dries out in most summers) then emergent species alone are likely to be found.

18 Rocky shore

Condition Sheet: ROCKY SHORE Habitat Type

EUNIS Habitat Type(s)

Rocky shore - High energy littoral rock
Rocky shore - Moderate energy littoral rock
Rocky shore - Low energy littoral rock
Rocky shore - Features of littoral rock
Rocky shore - High energy littoral rock - on peat, clay or chalk
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk
Rocky shore - Low energy littoral rock - on peat, clay or chalk
Rocky shore - Features of littoral rock - on peat, clay or chalk

Habitat Description

See EUNIS -Factsheet for Features of littoral rock

Habitat Attributes to Record

The following information should be recorded within the condition assessment proforma:
• Description of presence of typical communities and biotopes
• Description of species diversity and community composition
• Observations on coastal process functioning and any human physical modifications present
• Presence and abundance of non-native species
• % cover of algal growths that could be attributed to nutrient enrichment
• Presence and density of non-natural structures and direct human impacts
• Assessment of litter
• Habitat zonation[1]
• WFD classification of overlying water

Condition Assessment Criteria

Indicator		Good (3 points)	Moderate (2 point)	Poor (1 point)	Score per indicator
1	**Coastal processes**	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present e.g. groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.	

2	**Presence and abundance of invasive non-native species[2]**	Not more than 1 invasive non-native species is present at a level of occasional on the SACFOR scale or occupying more than 1% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote.	No invasive non-native species are present above 'Frequent' on the SACFOR scale or they occupy between 1-10% of the habitat. No high risk species indicative of sub-optimal condition present, see footnote for list.	One or more invasive non-native species are present at an 'Abundant' level on the SACFOR scale, they occupy more than 10% of the habitat or a high risk species indicative of sub-optimal condition is present – GBNNSS should be notified, see footnote for details.	
3	**Water Quality**	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Seasonality of the assessment should be considered; peak bloom time is July – September	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Seasonality of the assessment should be considered; peak bloom time is July – September.	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Seasonality of the assessment should be considered; peak bloom time is July – September.	
4	**Non-natural structures and direct human impacts**	No evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars) or they occupy <1% of the habitat area.	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying up to 10% of the habitat area.	Some evidence of impacts from direct human activities (including pontoons, moorings, boats, crab tiles, bait digging or anchoring scars), occupying over >10% of the habitat area.	

5	**Litter (when examining a beach strandline /mean high water line or intertidal rocky shore)**	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0036 m^{-1} min^{-1} $person^{-1}$ equivalent to up to 21 items per person per 100m per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[3].	Following the MCS beach litter survey method the number of items of litter does not exceed 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to between 20 and 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[3].	Following the MCS beach litter survey method the number of items of litter exceeds 0.0078 m^{-1} min^{-1} $person^{-1}$ equivalent to more than 47 items of litter per 100m survey per person per hour. See Nelms 2017 *et al* and the link to the MSFD threshold value assessment[3].	
				Total score (out of a possible 15)	

Condition Assessment Result

TOTAL SCORE 12-15 (75-100%) **= GOOD CONDITION**

TOTAL SCORE 8-11 (50-75%) **= MODERATE CONDITION**

TOTAL SCORE 5-7 (0-50%) **= POOR CONDITION**

Notes

Footnote 1 - The rocky shore macroalgal index enables an assessment of the condition of the rocky shore by looking at the macroalgal taxonomic composition and cover. WFD's Reduced Species List for the Macroalgae Tool: WFD (2012) *Practitioners Guide to the Opportunistic Macroalgal Blooming Tool Water Framework Directive: Transitional and Coastal Waters* [online]. Available from: Water Framework Directive development of classification tools for ecological assessment: (wfduk.org)

Footnote 2 - Abundances estimated using SACFOR scales details available here: JNCC (No date) *SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards* [online]. Available from: sacfor.pdf (jncc.gov.uk)
High risk species indicative of sub-optimal condition at time of publication include:
• *Didemnum vexillum* – Carpet sea squirt
• *Hemigrapsus spp.* – Asian Shore crabs (*H. sanguineus*, *H. takanoi* or *H. penicillatus*)
• *Corella eumyota* – Orange-tipped sea squirt
• *Grateloupia turuturu* – Devil's tongue weed, gracie, red menace and red tide
• *Schizoporella japonica* – Orange ripple bryozoan
Please check for updates of high risk species

Footnote 3 - Please see Nelms et al (2017) for methodological details to identify litter m^{-1} min^{-1} $person^{-1}$.
NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. *Science of The Total Environment* [online], 579. Available from: Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data - ScienceDirect

The indicator thresholds for litter are based on the methods in Van Loon et al (2020), which is guidance developed within the Common Implementation Strategy for the Marine Strategy Framework Directive by the MSFD Technical Group on Marine Litter.
VAN LOON, W. ET AL. (2020). *A European Threshold Value and Assessment Method for Macro Litter on Coastlines.* EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online] Available from:(PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)

19 Scrub

Condition Sheet: SCRUB Habitat Type	
UKHab Habitat Type	
Heathland and shrub - Blackthorn scrub **Heathland and shrub - Gorse scrub** **Heathland and shrub - Hawthorn scrub** **Heathland and shrub - Hazel scrub** **Heathland and shrub - Mixed scrub** **Heathland and shrub - Sea buckthorn scrub (Annex 1)**	
Habitat Description	
See UKHab	
For sea buckthorn scrub see: Habitats Directive Annex 1 definition	
Condition Assessment Criteria	
1	Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).
2	There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition[1] make up less than 5% of ground cover.
4	The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.

Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)

Footnotes

Footnote 1 - Species indicative of sub-optimal condition for this habitat type include: tree-of-heaven *Alianthus altissima*, holm oak *Quercus ilex*, turkey oak *Quercus cerris*, creeping thistle *Cirsium arvense*, common nettle *Urtica dioica*, cherry laurel *Prunus laurocerasus*, snowberry *Symphoricarpos* spp., buddleia *Buddleja* spp., cotoneaster *Cotoneaster* spp., Spanish bluebell *Hyacinthoides hispanica* (or hybrids).

20 Sparsely Vegetated Land

Condition Sheet: SPARSELY VEGETATED LAND Habitat Type	
UKHab Habitat Type(s)	
Sparsely vegetated land - Inland rock outcrop and scree habitats **Sparsely vegetated land - Other inland rock and scree**	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	The appearance and composition of the vegetation closely matches characteristics of the specific sparsely vegetated habitat type (see UKHab definition linked above). Indicator species for the specific sparsely vegetated habitat type are very clearly and easily visible.
2	Cover of bracken, scrub and trees less than 25%.
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition[1] make up less than 5% of vegetated ground cover.
4	Vegetation cover of vascular and non-vascular plants between 5 and 50%.

Condition Assessment Result	Condition Assessment Score
Passes 4 of 4 criteria	Good (3)
Passes 3 of 4 criteria	Moderate (2)
Passes 0, 1, or 2 of 4 criteria	Poor (1)

Footnotes

Footnote 1 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, docks *Rumex* spp., brambles *Rubus* spp., common ragwort *Jacobaea vulgaris*, common nettle *Urtica dioica*.

21 Urban

Condition Sheet: URBAN Habitat Type	
UKHab Habitat Type	
Sparsely vegetated land - Ruderal/ephemeral **Urban – Allotments** **Urban – Biodiverse green roof** [Use Urban condition sheet as default. Where there are areas of grassland, scrub or other habitat above the minimum mappable area threshold, record and assess these as the relevant habitat type] **Urban - Bioswale** **Urban - Cemeteries and churchyards** [Use Urban condition sheet as default. Where there are areas of grassland, woodland or scrub above the minimum mappable area threshold, record and assess these as the relevant habitat type] **Urban - Façade-bound green wall** **Urban - Ground based green wall** **Urban - Intensive green roof** **Urban - Open mosaic habitats on previously developed land** **Urban - Rain garden** **Urban - Sustainable urban drainage feature** [in the context of the Biodiversity Metric, this habitat type refers to open SUDS with vegetation and/or open water] **Urban - Vacant / derelict land / bare ground**	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
CORE CRITERIA - applicable to **all urban habitat types:**	
1	Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single structural habitat component / vegetation type should not account for more than 80% of the total habitat area.
2	There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife). Note that Biodiverse green roofs are exempt from this requirement, and can include non-native sedums, as set out in footnote 1.
3	Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).
ADDITIONAL CRITERION - only applicable to **Open mosaic on previously developed land** habitat type:	
4a	The site shows spatial variation, forming a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate AND pools. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.
ADDITIONAL CRITERION - only applicable to **Bioswale and SUDS** habitat types:	
4b	The water table is at or near the surface throughout the year. This could be open water or saturation of soil at the surface.
ADDITIONAL CRITERION - only applicable to **green roof** habitat types (select as necessary):	

4c1	**Intensive green roofs** – have a minimum of 50% native and non-native wildflowers - 70% of the roof area is soil and vegetation (including water features)
4c2	**Biodiverse green roofs** - have a varied depth of 80 - 150mm at least 50% is at 150mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. To achieve Good condition some additional habitat, such as sand piles, logs etc should be present.

Condition Assessment Result	Condition Assessment Score
If 3 criteria assessed:	
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3	Good (3)
•Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)
• Passes 0 or 1 of 3 core criteria	Poor (1)
If 4 criteria assessed:	
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3; AND • Passes additional criterion 4	Good (3)
• Passes 2 of 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)
• Passes 0 or 1 of 4 criteria	Poor (1)

Footnotes

Footnote 1: For **Biodiverse green roofs** only - experience has shown that a range of sedums species (native, naturalised, and non-native) support wildflowers during hot periods. Therefore, for Criteria 2 a Biodiverse green roof can have non-native sedums and still achieve Good condition.

Footnote 2: For Criteria 3 – For **green roof** habitat types only - *Buddleja davidii* should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not be planted and seeded correctly in sub-sequent years.

22 Urban trees

Condition Sheet: URBAN TREES Habitat Type	
UKHab Habitat Type(s)	
Urban - Urban tree	
Habitat Description	
Covers the following topographical formations most commonly found in urban areas[1]: **Individual Trees:** Young trees over 75mm in diameter measured at 1.5m from ground level and individual semi-mature and mature trees of significant stature and size that dominate their surroundings, whose canopies are not touching but that are in close proximity to other trees. **Perimeter Blocks:** Groups or stands of trees within and around boundaries of land, former field boundary trees incorporated into developments, individual trees in gardens whose canopies overlap continuously **Linear Blocks:** Lines of trees along streets, highways, railways and canals whose canopies may or may not overlap continuously.	
Condition Assessment Criteria	
1	The tree is a native species (or more than 70% within the block are native species).
2	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).
3	The tree is mature[2] or veteran[3] (or more than 50% within the block are mature[2] or veteran[3]).
4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.
5	Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark
6	More than 20% of the tree canopy area is oversailing vegetation beneath.

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 of 6 criteria	Good (3)
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 0, 1 or 2 of 6 criteria	Poor (1)

Footnotes
Footnote 1 - This covers all trees in artificial urban habitats such as private gardens, private land, institutional land and land used for transport functions; roads, streets, canals, rail, footpaths etc. Trees in urban areas can under the right conditions provide a large range of habitat opportunities, supporting lichens, invertebrates and birds. Tree planting in urban areas has for over two hundred years also introduced non-native species into towns and cities. In the context of biodiversity native species are the preferred option. However, non-native tree species can contribute positively to biodiversity richness particularly in relation to providing a seasonal food source for nectar feeders and other invertebrates as well as supporting vertebrates that feed on species that are hosted by non-native trees. Examples are early and late flowering species of *Prunus* and aphids on varieties of *Acer* providing food for species higher up the food chain. The species of trees (native or non-native) together with the intensity and type of management they are subject to will determine the biodiversity value of the trees in question. Trees in urban areas provide opportunistic sites for biodiversity to colonise and re-colonise, increasing connectivity and contributing to biodiversity critical mass between already established patches or sites. This is especially so where transport corridors are populated with mixed native species **Footnote 2** - A mature tree in this context is one that is at least 2/3 expected fully mature height for the species. **Footnote 3** - All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features: 1. Rot sites associated with wounds which are decaying >400cm2; 2. Holes and water pockets in the trunk and mature crown >5 cm diameter; 3. Dead branches or stems >15 cm diameter; 4. Any hollowing in the trunk or major limbs; 5. Fruit bodies of fungi known to cause wood decay.

23 Wetland

Condition Sheet: WETLAND Habitat Type	
UKHab Habitat Type(s)	
Grassland - Floodplain wetland mosaic (CFGM) [Use this condition sheet (plus Ditch condition sheet for any ditches) unless associated with a species rich grassland sward (meeting the definition of a priority habitat), reedbed or fen, in which case record and assess as the relevant habitat type within the metric (plus Ditch condition sheet for any ditches). **Wetland - Blanket bog** **Wetland - Depression on peat substrates (H7150)** **Wetland - Fens (upland and lowland)** **Wetland - Lowland raised bog** **Wetland - Oceanic valley mire [1] (D2.1)** **Wetland - Purple moor grass and rush pastures** **Wetland - Reedbeds** **Wetland - Transition mires and quaking bogs (H7140)**	
Habitat Description	
Oceanic valley mires – See EUNIS -Factsheet for Valley mires (europa.eu) **Floodplain wetland mosaic (CFGM) -** Where an area is included within the (soon to be published) 'Floodplain wetland mosaic Habitat Inventory' as extant habitat OR included within the 'Floodplain with potential for restoration to Wetland Mosaic' layer it should be recorded within the metric as FWM habitat. In these cases the ditches form an integral part of the habitat and should not be recorded separately as linear features in the Rivers & Streams part of the metric. If it is NOT included within either layer of the inventory it should be assessed, and entered into the metric, as the appropriate habitat (e.g. modified grassland, cereal crop, temporary lakes, ponds and pools). Any ditches should be recorded separately within the River and Streams part of the metric. *Until this new inventory is published, you should use existing inventories for floodplain habitats, including the Coastal and Floodplain Grazing Marsh layer of the Priority Habitat Inventory (England) and any local habitat data.* Coastal and floodplain grazing marsh UK BAP Priority Habitat description **All other wetland habitats** - See UKHab	
Condition Assessment Criteria	
CORE CRITERIA - Applicable to **all wetland habitat types**:	
1	The water table is at or near the surface throughout the year, this could be open water or saturation of soil at the surface. There is no artificial drainage, unless specifically to maintain water levels as specified above. **NB - this criterion is essential for achieving good condition.**
2	The appearance and composition of the vegetation closely matches characteristics of the specific wetland habitat type (see UKHab definition linked above). Indicator species for the specific wetland habitat type[1] are very clearly and easily visible.
3	The water supplies (groundwater, surface water and/or rainwater) to the wetland are of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.
4	Cover of scrub and scattered trees less than 10%.
5	Cover of bare ground less than 5%.
6	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition[1] make up less than 5% of ground cover.

ADDITIONAL CRITERION - only applicable to **Fen and Purple moor grass and rush pasture** habitat type:	
7a	No more than 25% of the fen area has a continuous cover of litter (i.e. dead vegetation) preventing regeneration.
ADDITIONAL CRITERION - only applicable to **Bog** habitat type:	
7b	Sphagnum and cottongrasses are at least frequent. Cover of ericaceous dwarf-shrubs[2] is less than 75%.
ADDITIONAL CRITERION - only applicable to **Reedbed** habitat type:	
7c	The reedbed has a diverse structure with between 60 and 80% reeds. Other areas may include open water (at least 10%), species-rich fen and/or wet woodland.
ADDITIONAL CRITERION - only applicable to **Floodplain wetland mosaic (CFGM)** habitat type:	
7d	All ditches recorded within the habitat achieve Good condition as assessed using the Ditch condition sheet.

Condition Assessment Result	**Condition Assessment Score**
If 6 criteria assessed:	
• Passes 5 or 6 of 6 core criteria, INCLUDING essential core criterion 1	Good (3)
• Passes 3 or 4 of 6 core criteria; OR • Passes 5 of 6 core criteria EXCLUDING essential core criterion 1	Moderate (2)
• Passes 0, 1 or 2 of 6 core criteria	Poor (1)
If 7 criteria assessed:	
• Passes 5 or 6 of 6 core criteria, INCLUDING essential core criterion 1; AND • Passes additional criterion 7a, 7b, 7c OR 7d where applicable	Good (3)
• Passes 4 or 5 of 7 criteria; OR • Passes 6 of 7 criteria EXCLUDING either essential core criterion 1 or additional criterion 7a, 7b, 7c OR 7d	Moderate (2)
• Passes 0, 1, 2 or 3 of 7 criteria	Poor (1)

Footnotes

Footnote 1 - For fens, specify what fen type is present - alkaline, neutral, acidic/eutrophic, mesotrophic, oligotrophic.

Footnote 2 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare,* common nettle *Urtica dioica*, docks *Rumex* spp., cherry laurel *Prunus laurocerasus*, common ragwort *Jacobaea vulgaris*.

Footnote 3 - Ericaceous dwarf shrubs include: crowberry *Empetrum nigrum*, cowberry *Vaccinium vitis-idaea*, bog bilberry *Vaccinium uliginosum*, cranberry *Vaccinium oxycoccos*, heather *Calluna vulgaris*, cross-leaved heath *Erica tetralix*, bog-rosemary *Andromeda polifolia*, bog myrtle *Myrica gale.*

24 Woodland

Condition Sheet: WOODLAND Habitat Type

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method

UKHab Habitat Type(s)

Woodland and forest - Lowland beech and yew woodland
Woodland and forest - Lowland mixed deciduous woodland
Woodland and forest - Native pine woodlands
Woodland and forest - Other coniferous woodland
Woodland and forest - Other Scot's pine woodland
Woodland and forest - Other woodland; broadleaved
Woodland and forest - Other woodland; mixed
Woodland and forest - Upland birchwoods
Woodland and forest - Upland mixed ashwoods
Woodland and forest - Upland oakwood
Woodland and forest - Wet woodland

Habitat Description

See UKHab

Condition Assessment Criteria

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator
1	**Age distribution of trees**[1]	Three age classes present	Two age classes present	One age class present	
2	**Wild, domestic and feral herbivore damage**	No significant browsing damage evident in woodland[2]	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	
3	**Invasive plant species**[3]	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	
4	**Number of native tree species**	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	
5	**Cover of native tree and shrub species**	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	
6	**Open space within woodland**[4]	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	

7	**Woodland regeneration**[5]	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	
8	**Tree health**	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present[6]	Greater than 25% tree mortality and or any high risk pest or disease present	
9	**Vegetation and ground flora**	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	
10	**Woodland vertical structure**[7]	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	
11	**Veteran trees**[8]	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	
12	**Amount of deadwood**[9]	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps, or a high abundance of smaller cavities	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps, or a high abundance of smaller cavities	Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps, or a high abundance of smaller cavities	
13	**Woodland disturbance**[10]	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	
				Total score (out of a possible 39)	

Condition Assessment Result	Condition Assessment Score
Total score >32 (33 to 39)	Good (3)
Total score 26 to 32	Moderate (2)
Total score <26 (13 to 25)	Poor (1)

Footnotes

All footnotes below refer to the EWBG woodland condition assessment methodology: EWBG (No date). *Assessing your Woodland's Condition* [online]. Available from: Woodland Wildlife Toolkit (sylva.org.uk)

Footnote 1 - See EWBG method INDICATOR 1 for more information. If tree species is not a birch, cherry or Sorbus: 0 – 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). A recognisable age class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an 'age class' of young trees.

Footnote 2 - See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed.

Footnote 3 - See EWBG method INDICATOR 3 for more information. Check for presence of the following invasive non-native species: American skunk cabbage *Lysichiton americanus;* Himalayan balsam *Impatiens glandulifera;* Japanese knotweed *Fallopia japonica;* Cherry Laurel *Prunus laurocerasus;* Shallon *Gaultheria shallon;* Snowberry *Symphoricarpos albus;* Variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum;* and Rhododendron *Rhododendron ponticum.*

Footnote 4 - See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (e.g. glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (e.g. tarmac, buildings, rivers). Area is at least 10m wide with less than 20% covered by shrubs or trees.

Footnote 5 - See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7 cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, the regeneration indicator is gathers additional information by considering regeneration potential i.e. if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

Footnote 6 - See EWBG method INDICATOR 9 for more information and Table 3 for a list of diseases and pests and their risk level.

Footnote 7 - This indicator is looking at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer.

Footnote 8 - See EWBG method INDICATOR 12 for more information. All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features:

1. Rot sites associated with wounds which are decaying >400 cm^2;
2. Holes and water pockets in the trunk and mature crown >5 cm diameter;
3. Dead branches or stems >15 cm diameter;
4. Any hollowing in the trunk or major limbs;
5. Fruit bodies of fungi known to cause wood decay.

Footnote 9 – See EWBG method INDICATOR 13 for more information. This includes logs, large dead branches on the forest floor and stumps (<1m tall) >20cm diameter at narrowest point and >50cm long. Also includes standing dead trees (>1m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20cm.

Footnote 10 - See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery or animal poaching; litter.

25 Wood-pasture & Parkland

Condition Sheet: WOOD-PASTURE & PARKLAND Habitat Type	
UKHab Habitat Type(s)	
Woodland and forest - Wood-pasture and parkland	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
1	Presence of ancient[1] and / or veteran[2] trees.
2	Trees are of a range of different ages to ensure replacement. Three age classes are present and must include at least one of the following: mature[3], late-mature[3], ancient or veteran trees.
3	Presence of standing and / or fallen deadwood: • Wood-pasture - All ancient and veteran trees have standing deadwood, large dead branches, stems and stumps associated with them. • Parkland - 80% of ancient and veteran trees have standing deadwood, large dead branches, stems and stumps associated with them.
4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities, livestock or wild animals, or pests or diseases (e.g. no evidence of poaching, nettles, ground compaction, bare ground under trees or grazing damage to bark and roots).
5	Ground cover comprises semi-natural grassland or heathland.
6	Grassland or heathland habitat is subject to an appropriate management regime: • Grassland - Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. • Heathland - There is a range of age classes of heather present, with the following proportions: pioneer heather 10-40%, building/mature heather 20-80%, degenerate heather <30% and dead heather <10%.

Condition Assessment Result	Condition Assessment Score
Passes 6 of 6 criteria	Good (3)
Passes 4 or 5 of 6 criteria	Moderate (2)
Passes 0, 1, 2 or 3 of 6 criteria	Poor (1)

Footnotes
Footnote 1 - Ancient trees are exceptionally valuable. Attributes can include: its great age in comparison with other trees of the same species; size, especially very wide trunk; condition; biodiversity value as a result of significant wood decay and the habitat created from the ageing process; and cultural and heritage value. Very few trees of any species become ancient. Ancient trees can be classified using the following girth guide at 1.5 m from the ground: • **>2.5 m** for field maple, rowan, yew, birch, holly and other smaller tree species; • **>4 m** for oaks, ash, Scot's pine, alder; • **>4.5 m** for sycamore, lime, horse chestnut, sweet chestnut, elm species, poplar species, beech, willows, other pines and exotics. **Footnote 2** - All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features: 1. Rot sites associated with wounds which are decaying >400 cm^2; 2. Holes and water pockets in the trunk and mature crown >5 cm diameter; 3. Dead branches or stems >15 cm diameter; 4. Any hollowing in the trunk or major limbs; 5. Fruit bodies of fungi known to cause wood decay. **Footnote 3** - Mature trees are close to their full height and crown size, these dimensions being determined by species and site factors. Late-mature trees are still close to their full height and crown size while main-stem diameter (which by now is large) increases more slowly.

ANNEX 2: CONDITION ASSESSMENT PROFORMA

CONDITION ASSESSMENT PROFORMA TEMPLATE FOR USE WITH BIODIVERSITY METRIC 3.1 - AREA BASED HABITATS														
Date									Metric 3.1 survey reference (if condition assessment of this polygon relates to a wider habitat survey)					
Weather conditions														
Surveyor name(s)									Unique polygon reference(s)					
Project / development name									Metric 3.1 habitat type					
Site name or location									Condition assessment required? (y/n)					
Onsite or offsite?									Condition sheet used					
Reason for assessment (if not baseline condition survey)														
Limitations (if applicable)														
Habitat description														
Allocate pass 'P' or fail 'F'. Allocate 'NA' to any irrelevant criteria numbers where condition sheet contains fewer than 13 criteria. For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criterion assessed.														
Criterion	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	**TOTAL**
Result														
Photo ref														
Target note ref														
Are any criteria essential? (Y/N) If Yes are they passed?									Condition (Good/Moderate/Poor):					
Suggested enhancement interventions to improve condition score														