

The Biodiversity Metric 4.0 -Technical Annex 1: Condition Assessment Sheets and Methodology

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Instructions

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

Step 1: Considerations before assessing condition

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

- a) Condition assessments must be undertaken by a competent person, as defined in the Biodiversity Metric 4.0 User Guide.
- b) Assessors must have access to condition sheets (see **Tabs 1-25**) and the survey cover sheet during the survey (see **SURVEY COVER SHEET** tab). These may be either digital or hard copies.
- c) The habitat type of the parcel(s) to be assessed must be determined before consideration can be given to its condition as this enables the assessor to select the correct condition sheet (see **HABITAT DEFINITIONS** tab). Most (but not all) metric terrestrial habitat types are equivalent to Level 4 in UKHab, therefore some metric habitats encompass UKHab Level 5 sub-divisions. When classifying a habitat, the assessor should classify and record it to the most accurate and appropriate level. Although a Level 5, or equivalent habitat may need converting to a metric habitat type when using the metric, when assessing its condition the most accurate description should be used. Using professional judgement, this may include the Level 5 UKHab description as well as the Level 4 description, depending on the habitat type.
- d) The location and extent of the habitat parcel(s) to be assessed must be mapped, either on digital or paper maps. Following condition assessment, mapped habitat parcels should be split according to their condition.
- e) Each habitat parcel to be assessed must be assigned a unique reference ID.

Step 2: Choosing the right condition sheet

See **SELECTING CONDITION SHEET** tab which lists the habitat types found in the metric and indicates which condition 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: locate the relevant habitat type in the first column (Habitat Type), then refer to the second column (Condition Sheet) to determine which habitat condition sheet should be used to assess that particular habitat type. The third and fourth columns (Link to sheet) contain links which can be clicked on to navigate directly to the required condition sheet, for ease of navigation. Please note the following important points:

- Some habitats are allocated a fixed condition score in the metric and do not require a condition assessment for the metric to be completed. For certain low and medium distinctiveness habitats there is a fixed option in the metric - 'Condition Assessment N/A'; for very low distinctiveness habitats the fixed option is 'N/A - Other'.
- Habitats descriptions in **bold** are Priority Habitats.

Step 3: Using condition sheets (Tabs 1-25)

The following instructions and points of clarification apply to most condition assessment sheets:

- a) Only choose one condition sheet per habitat type. Once the condition sheet has been chosen, the condition assessment can be carried out on relevant sheets A or B, which are the same except that for A - information for one habitat parcel can be recorded, whereas for B - information for up to 10 habitat parcels can be recorded. Each condition sheet is set to print at A4 and can be used as a paper form.
- b) Assess the habitat parcel against each condition assessment criterion, recording a 'pass' or 'fail' for each criterion assessed, unless otherwise directed by categories available on the sheet.
- c) If a habitat parcel is failing all criteria, it may be that the habitat type has been recorded incorrectly and the wrong condition sheet is being used. Assessors should refer to the habitat description links at the top of the condition sheet to ensure that the habitat type is correctly identified.
- d) If condition varies within a parcel during the assessment then start a new condition assessment. Split the original parcel to ensure that each individual parcel comprises an area of habitat of a consistent type and condition.
- e) Some condition assessment sheets have 'essential' criteria. Essential criteria must be passed to achieve a particular condition state.
- f) Some condition assessment sheets list species that are indicative of sub-optimal condition status. These lists are not exhaustive. An assessor may exercise professional judgement and consider additional species within this category, such as those of geographical relevance. Report any high-risk non-native invasive species to the:
[GB non-native species secretariat](#)
- g) Any relevant evidence for passing or failing criteria, or for a particular score, should be captured within the habitat survey target notes and or by taking photographs. Photographs and target notes should be referenced on the condition sheet.
- h) Record any survey limitations on the condition sheet, such as access restrictions or timing restrictions. If survey limitations prevent any criteria from being confidently and accurately assessed, adopt a precautionary approach when passing or failing criteria. Ensure any constraints are made clear in the 'Assessor's comments' box in the metric and associated reporting:
 - i. If a definitive pass or fail cannot be assigned through baseline survey, assume the criterion is passed.
 - ii. When monitoring post-intervention habitat, fail criteria which cannot be assessed due to survey limitations.
- i) Once all applicable condition criteria have been assessed, assign a result of Good, Moderate or Poor condition following instructions provided within the relevant condition sheet.
 - i. The 'Fairly Good' or 'Fairly Poor' condition categories are intermediate categories for site-specific features of condition not captured in the standard condition assessment. They should only be applied through application of professional judgement, and sound ecological evidence must be provided to justify the use of these categories. If used, these categories can only be used to adjust the results of a standard metric condition assessment one condition category above or below its result. For example, you cannot go from a standard outcome of 'Poor' to an adjustment to 'Fairly Good' (nor from 'Good' to 'Fairly Poor').

The condition assessment survey is a good opportunity to identify any potential opportunities for habitat restoration or enhancement. Note potential opportunities for these within the condition sheet.

The **CA SUMMARY SHEET** can be filled out after the survey to summarise information about the condition assessments, including:

- The site or location of the condition assessment survey
- The number of condition sheets used
- The number and type of habitat parcels surveyed and the condition they achieved

Notes on Using Condition Sheets

Additional habitat-specific instructions for non-standard condition assessment sheets are provided below:

Using the 'Woodland' condition sheet

The Woodland condition sheet has been adapted from the 'Woodland Condition Survey' developed by the England Woodland Biodiversity Group (EWBG). All supplementary information needed to complete a Woodland condition assessment for the purpose of the metric is provided within the Woodland condition sheet.

Instead of allocating a pass or fail to each criterion, each of the criteria within the woodland condition sheets are allocated a score. These scores are summed, and the total sum is used to assign a final condition score.

Using the 'Lakes' condition sheet

The Freshwater Biological Association's 'Habitat Naturalness Assessment' (HNA) is used to assess the condition of a lake. All supplementary information needed to complete a HNA is provided within the Lake condition sheet.

The average of the HNA scores is used to assign a final condition score.

Using the 'Coastal' and 'Intertidal' habitat condition sheets

For most coastal and intertidal habitats, instead of allocating a 'pass' or 'fail' to each criterion, each of the criteria within the condition sheets are allocated a score. These scores are summed, and the total sum is used to assign a final condition score.

Using the 'Hedgerow' condition sheet

The condition sheet for hedgerows has been adapted from the Defra Hedgerow Survey Handbook. All supplementary information needed to complete a hedgerow condition assessment is provided within the Hedgerow condition sheet.

Each condition criterion is assigned to one of five functional groups. The condition of a hedgerow is assessed according to the number of criteria passed within these functional groups.

Habitat Definitions

Links to habitat classification systems used by the Biodiversity Metric 4.0 are below:

[UK Habitat Classification System definitions](#)

[EUNIS habitat definitions](#)

[Water Framework Directive Lakes Typologies](#)

Tips on using the table below:

Italics denotes habitat name in Biodiversity Metric 4.0 does not correspond exactly to that used in source classification.

Bold denotes definition is specific to Biodiversity Metric 4.0.

Biodiversity Metric 4.0 broad habitat	Biodiversity Metric 4.0 habitat	Classification where definition derived	Habitat name in source classification	Other definition or notes
Cropland	<i>Arable field margins cultivated annually</i>	UKHab	Arable field margins cultivated annually with an annual flora	The metric habitat type differs from the UKHab name.
	<i>Arable field margins game bird mix</i>	UKHab	Game bird mix strips and corners; Game bird mix fields	The metric habitat type differs from the UKHab name.
	Arable field margins pollen and nectar	UKHab	Arable field margins pollen and nectar	
	<i>Arable field margins tussocky</i>	UKHab	Arable field margins sown with tussocky grasses	The metric habitat type differs from the UKHab name.
	Cereal crops	UKHab	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	
	Floodplain wetland mosaic and CFGM	Floodplain Wetland Mosaic: Metric-specific, see notes	N/A	See User Guide.
		CFGM - Definition based on Priority Habitat Inventory maps	CFGM - Coastal and floodplain grazing marsh	N/A

	Lowland calcareous grassland	UKHab	Lowland calcareous grassland	
	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)	Use Habitats Directive Annex 1 definition	Tall herb communities (H6430)	All Tall herb not meeting this definition should be recorded as Other neutral grassland with the relevant secondary code according to UKHab.
	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	
	Willow scrub	UKHab	Willow scrub	
	Dunes with sea buckthorn (H2160)	Habitats Directive Annex 1	Dunes with sea buckthorn (H2160)	All other sea buckthorn scrub should be recorded as 'Other sea buckthorn scrub'
	Other sea buckthorn scrub	UKHab	Other sea buckthorn scrub	
	Upland heathland	UKHab	Upland heathland	
Individual tree	Rural tree	Metric-specific – see User Guide	N/A	See User Guide
	Urban tree	Metric-specific – see User Guide	N/A	See User Guide
Lakes	Aquifer fed naturally fluctuating water bodies	UKHab	Aquifer fed naturally fluctuating water bodies	

	<i>Ornamental lake or pond</i>	UKHab	Artificial lake or pond	The metric habitat type differs from the UKHab name. ≤ 2ha
	High alkalinity lakes	Water Framework Directive (WFD) Lakes typology	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)	UKHab*	N/A	*Ponds which do not meet either the definition of (i) priority habitat ponds or (ii) ornamental ponds.
	Reservoirs	UKHab/WFD Lakes typology*	Reservoir	*Some larger reservoirs are covered by the WFD Lakes typology.
	<i>Temporary lakes ponds and pools (H3170)</i>	UKHab*	Mediterranean temporary ponds (H3170)	The metric habitat type differs from the UKHab name. *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	
	Tall forbs	UKHab	Tall forbs	
	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	
	Artificial unvegetated, unsealed surface	UKHab	Artificial unvegetated, unsealed surface	
	Bioswale	UKHab	Bioswale	
	Biodiverse green roof	UKHab	Biodiverse green roof	
	Built linear features	UKHab	Built linear features	
	<i>Cemeteries and churchyards</i>	UKHab	Cemetery	
	Developed land; sealed surface	UKHab	Developed land; sealed surface	
	Extensive green roof	UKHab	Extensive green roof	
	Facade-bound green wall	UKHab	Facade-bound green wall	
	Ground based green wall	UKHab	Ground based green wall	
	Ground level planters	UKHab	Ground level planters	
	Intensive green roof	UKHab	Intensive green roof	
	Introduced shrub	UKHab	Introduced shrub	
	Open mosaic habitats on previously developed land	UKHab	Open mosaic habitats on previously developed land	
	Other green roof	UKHab	Other green roof	
	Rain garden	UKHab	Rain garden	
	<i>Actively worked sand pit quarry or open cast mine</i>	UKHab	Sand pit quarry or open cast mine	The metric habitat type differs from the UKHab name. This classification relates to non-vegetated working areas only.
	Sustainable drainage system (SuDS)	UKHab*	Sustainable urban drainage feature	* In the metric, this should only be used for open SuDS with vegetation and/or open water.
	Unvegetated garden	UKHab	Unvegetated garden	The metric habitat type differs from the UKHab name.
	Vacant or derelict land	UKHab	Vacant or derelict land	
Wetland	Bare ground	UKHab	Bare ground	
	Vegetated garden	UKHab	Vegetated garden	The metric habitat type differs from the UKHab name.
	Blanket bog	UKHab	Blanket bog	
	Depressions on peat substrates (H7150)	UKHab	Depressions on peat substrates (H7150)	

	<i>Fens (upland and lowland)</i>	UKHab	Lowland fens; Upland flushes fens and swamps; Other swamps	The metric habitat type differs from the UKHab name.
	Lowland raised bog	UKHab	Lowland raised bog	
	<i>Wetland – Oceanic valley mire [1] (D2.1)</i>	EUNIS	Oceanic valley bog	The metric habitat type differs from the UKHab name.
	Purple moor grass and rush pastures	UKHab	Purple moor grass and rush pastures	
	Reedbeds	UKHab	Reedbeds	
	<i>Transition mires and quaking bogs (H7140)</i>	UKHab	Transition mires and quaking bogs; lowland (H7140)	The metric habitat type differs from the UKHab name.
Woodland and forest	Felled	UKHab	Felled	See User Guide
	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	
	Wood-pasture and parkland	UKHab	Wood-pasture and parkland	
Coastal lagoons	<i>Coastal lagoons</i>	EUNIS	Saline coastal lagoons	
Coastal saltmarsh	<i>Saltmarshes and saline reedbeds</i>	EUNIS	Coastal saltmarshes and saline reedbeds	
	<i>Artificial saltmarshes and saline reedbeds</i>	Adapted from EUNIS		
Rocky shore	High energy littoral rock	EUNIS	High energy littoral rock	
	<i>High energy littoral rock - on peat, clay or chalk</i>	Subset of EUNIS habitat based on substrate	High energy littoral rock	
	Moderate energy littoral rock	EUNIS	Moderate energy littoral rock	
	<i>Moderate energy littoral rock - on peat, clay or chalk</i>	Subset of EUNIS habitat based on substrate	Moderate energy littoral rock	

	Low energy littoral rock	EUNIS	Low energy littoral rock	
	<i>Low energy littoral rock - on peat, clay or chalk</i>	Subset of EUNIS habitat based on substrate	Low energy littoral rock	
	Features of littoral rock	EUNIS	Features of littoral rock	
	<i>Features of littoral rock - on peat, clay or chalk</i>	Subset of EUNIS habitat based on substrate	Features of littoral rock	
Intertidal sediment	Littoral coarse sediment	EUNIS	Littoral coarse sediment	
	<i>Littoral sand</i>	EUNIS	Littoral sand and muddy sand	
	<i>Littoral muddy sand</i>	EUNIS	Littoral sand and muddy sand	
	Littoral mud	EUNIS	Littoral mud	
	Littoral mixed sediments	EUNIS	Littoral mixed sediments	
	<i>Littoral seagrass</i>	EUNIS	Littoral sediments dominated by aquatic angiosperms	
	<i>Littoral seagrass on peat, clay or chalk</i>	Subset of EUNIS habitat based on substrate	Littoral sediments dominated by aquatic angiosperms	
	<i>Littoral biogenic reefs - Mussels</i>	Subset of EUNIS habitat based on reef forming species	Littoral biogenic reefs	
	<i>Littoral biogenic reefs - Sabellaria</i>	Subset of EUNIS habitat based on reef forming species	Littoral biogenic reefs	
	Features of littoral sediment	EUNIS	Features of littoral sediment	
	<i>Artificial littoral coarse sediment</i>	Adapted from EUNIS - see Technical Annex 2		
	<i>Artificial littoral muddy sand</i>	Adapted from EUNIS - see Technical Annex 2		
	<i>Artificial littoral mud</i>	Adapted from EUNIS - see Technical Annex 2		
	<i>Artificial littoral sand</i>	Adapted from EUNIS - see Technical Annex 2		

	<i>Artificial littoral mixed sediments</i>	Adapted from EUNIS - see Technical Annex 2		
	<i>Artificial littoral seagrass</i>	Adapted from EUNIS - see Technical Annex 2		
	<i>Artificial littoral biogenic reefs</i>	Adapted from EUNIS - see Technical Annex 2		
Intertidal Hard Structures	<i>Artificial hard structures</i>	Adapted from EUNIS - see Technical Annex 2		
	<i>Artificial features of hard structures</i>	Adapted from EUNIS - see Technical Annex 2		
	<i>Artificial hard structures with integrated greening of grey infrastructure (IGGI)</i>	Adapted from EUNIS - see Technical Annex 2		
Hedgerows and Lines of trees	<i>Species-rich native hedgerow with trees - associated with bank or ditch</i>	UKHab	Species-rich native hedgerow	The definition does not match exactly as UKHab uses additional secondary codes.
	<i>Species-rich native hedgerow with trees</i>	UKHab	Species-rich native hedgerow	The definition does not match exactly as UKHab uses additional secondary codes.
	<i>Species-rich native hedgerow - associated with bank or ditch</i>	UKHab	Species-rich native hedgerow	The definition does not match exactly as UKHab uses additional secondary codes.
	<i>Native hedgerow with trees - associated with bank or ditch</i>	UKHab	Native hedgerow	The definition does not match exactly as UKHab uses additional secondary codes.
	Species-rich native hedgerow	UKHab	Species-rich native hedgerow	
	<i>Native hedgerow - associated with bank or ditch</i>	UKHab	Native hedgerow	The definition does not match exactly as UKHab uses additional secondary codes.
	<i>Native hedgerow with trees</i>	UKHab	Native hedgerow	The definition does not match exactly as UKHab uses additional secondary codes.
	Ecologically valuable line of trees	UKHab	Ecologically valuable line of trees	

	<i>Ecologically valuable line of trees - associated with bank or ditch</i>	UKHab	Ecologically valuable line of trees	The definition does not match exactly as UKHab uses additional secondary codes.
	Native hedgerow	UKHab	Native hedgerow	
	Line of trees	UKHab	Line of trees	
	<i>Line of trees - associated with bank or ditch</i>	UKHab	Line of trees	The definition does not match exactly as UKHab uses additional secondary codes.
	Non-native and ornamental hedgerow	UKHab	Non-native and ornamental hedgerow	
Watercourse	Priority habitat	UKHab	Rivers (priority habitat)	Highly naturally functioning stretches of rivers identified on the Priority River Habitat Map, and un-mapped stretches meeting the criteria for inclusion into the Priority River Habitat Map.
	Other rivers and streams	UKHab	Other rivers and streams	Rivers and streams that are not classified as Priority River Habitat
	Ditches	UKHab	Ditch	Artificially created linear water-conveyancing features which are less than 5m wide, and likely to retain water for more than 4 months of the year
	Canals	UKHab	Canals	An artificial body of water originally created for the purposes of navigation, whether it is currently navigable or not.
	Culvert	N/A	N/A	As defined by the 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.

	Watercourse footprint	Metric-specific	N/A	Area habitat in the metric to use for mapping a watercourse area, the details of which should be put in the Watercourse module of the metric.
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Instructions:		
The table below sets out which condition sheet to use for each habitat type. Priority Habitats (as defined in NERC Section 41) are indicated in bold text		

Habitat Type (Habitats in bold are Priority Habitats)	Condition Sheet	Link to sheet (1 habitat parcel)
Area habitats		
Broad habitat type: Cropland		
Cropland - Arable field margins cultivated annually	Condition Assessment N/A	N/A
Cropland - Arable field margins game bird mix		
Cropland - Arable field margins pollen and nectar		
Cropland - Arable field margins tussocky		
Cropland - Cereal crops		
Cropland - 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	N/A
Grassland - Floodplain wetland mosaic and CFGM	Use Wetland condition sheet (plus Ditch condition sheet for any ditches). If the area meets the definition of another high / very high distinctiveness type, record and treat as the relevant habitat type within the metric instead.	Tab 23A
Grassland - Lowland calcareous grassland	Grassland Medium/High/Very High distinctiveness	Tab 6A
Grassland - Lowland dry acid grassland		
Grassland - Lowland meadows		
Grassland - Modified grassland	Grassland Low distinctiveness	Tab 5A
Grassland - Other lowland acid grassland	Grassland Medium/High/Very High distinctiveness	Tab 6A
Grassland - Other neutral grassland		
Grassland - Tall herb communities (H6430)		
Grassland - Traditional orchards	Orchard	Tab 17A
Grassland - Upland acid grassland	Grassland Medium/High/Very High distinctiveness	Tab 6A
Grassland - Upland calcareous grassland		
Grassland - Upland hay meadows		
Broad habitat type: Heathland and scrub		
Heathland and shrub - Blackthorn scrub	Scrub	Tab 20A
Heathland and shrub - Bramble scrub	Condition Assessment N/A	N/A
Heathland and shrub - Gorse scrub	Scrub	Tab 20A
Heathland and shrub - Hawthorn scrub		
Heathland and shrub - Hazel scrub		
Heathland and shrub - Lowland heathland	Heathland	Tab 7A
Heathland and shrub - Mixed scrub	Scrub	Tab 20A
Heathland and shrub - Mountain heaths and willow scrub	Use Heathland condition sheet for Mountain heaths OR	Tab 7A
	Scrub condition sheet for Willow scrub	Tab 20A
Heathland and shrub - Rhododendron scrub	Condition Assessment N/A	N/A
Heathland and shrub – Dunes with sea buckthorn (H2160)	Scrub	Tab 20A
Heathland and shrub – Other sea buckthorn scrub	Condition Assessment N/A	N/A
Heathland and shrub - Upland heathland	Heathland	Tab 7A
Heathland and shrub – Willow scrub	Scrub	Tab 20A
Broad habitat type: Lakes		
Lakes - Aquifer fed naturally fluctuating water bodies	Lakes	Tab 14A
Lakes - High alkalinity lakes		
Lakes - Low alkalinity lakes		
Lakes - Marl lakes		
Lakes - Moderate alkalinity lakes		
Lakes - Ornamental lake or pond	Lakes OR Ponds	Tab 14A Tab 18A
Lakes - Peat lakes	Lakes	Tab 14A
Lakes - Ponds (priority habitat)	Ponds	Tab 18A
Lakes - Ponds (non-priority habitat)		
Lakes - Reservoirs	Lakes	Tab 14A
Lakes - Temporary lakes ponds and pools (H3170)	Use Lake condition sheet for Temporary lakes OR	Tab 18A
	Pond condition sheet for Temporary ponds and pools	
Broad habitat type: Sparsely vegetated land		
Sparsely vegetated land - Calaminarian grasslands	Grassland Medium/High/Very High distinctiveness	Tab 6A
Sparsely vegetated land - Coastal sand dunes	Coastal	Tab 1A
Sparsely vegetated land - Coastal vegetated shingle	Urban	Tab 22A
Sparsely vegetated land - Ruderal/Ephemeral		
Sparsely vegetated land – Tall forbs		
Sparsely vegetated land - Inland rock outcrop and scree habitats	Sparsely vegetated land	Tab 21A
Sparsely vegetated land - Limestone pavement	Limestone pavement	Tab 15A
Sparsely vegetated land - Maritime cliff and slopes	Coastal	Tab 1A

Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	Tab 21A
Broad habitat type: Urban		
Urban - Allotments	Urban	Tab 22A
Urban - Artificial unvegetated, unsealed surface	N/A - Other	N/A
Urban - Bioswale	Urban	Tab 22A
Urban - Biodiverse green roof	Urban	Tab 22A
Urban - Built linear features	N/A - Other	N/A
Urban - Cemeteries and churchyards	Use Urban condition sheet as default.	Tab 22A
Urban - Developed land; sealed surface	N/A - Other	N/A
Urban - Facade-bound green wall	Urban	Tab 22A
Urban - Ground based green wall		
Urban - Ground level planters	Condition Assessment N/A	N/A
Urban - Intensive green roof	Urban	Tab 22A
Urban - Introduced shrub	Condition Assessment N/A	N/A
Urban - Open mosaic habitats on previously developed land	Urban	Tab 22A
Urban - Other green roof	Condition Assessment N/A	N/A
Urban - Rain garden	Urban	Tab 22A
Urban - Actively worked sand pit, quarry or open cast mine	Condition Assessment N/A	N/A
Urban - Sustainable drainage system (SuDS)	Urban	Tab 22A
Urban - Unvegetated garden	N/A - Other	N/A
Urban – Vacant or derelict land	Urban	Tab 22A
Urban – Bare ground		
Urban - Vegetated garden	Condition Assessment N/A	N/A
Broad habitat type: Wetland		
Wetland - Blanket bog	Wetland	Tab 23A
Wetland - Depressions 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)		
Broad habitat type: Woodland		
Woodland and forest - Felled	No assessment required - condition fixed at Good	N/A
Woodland and forest - Lowland beech and yew woodland	Woodland	Tab 24A
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		
Woodland and forest - Wood-pasture and parkland	Wood-pasture and parkland	Tab 25A
Broad habitat type: Coastal lagoons		
Coastal lagoons - Coastal lagoons	Coastal lagoons	Tab 2A
Broad habitat type: Coastal saltmarsh		
Coastal saltmarsh - Saltmarshes and saline reedbeds	Coastal saltmarsh	Tab 3A
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds		
Broad habitat type: Intertidal hard structures		
Intertidal hard structures - Artificial hard structures	Intertidal hard structures	Tab 11A
Intertidal hard structures - Artificial features of hard structures		
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)		
Broad habitat type: Intertidal sediment		
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	Tab 13A
Intertidal sediment - Littoral sand		
Intertidal sediment - Littoral muddy sand		
Intertidal sediment - Littoral mud		
Intertidal sediment - Littoral mixed sediments		
Intertidal sediment - Features of littoral sediment		
Intertidal sediment - Artificial littoral coarse sediment		
Intertidal sediment - Artificial littoral mixed sediments		
Intertidal sediment - Artificial littoral mud		
Intertidal sediment - Artificial littoral muddy sand		
Intertidal sediment - Artificial littoral sand		
Intertidal sediment - Littoral seagrass	Intertidal seagrass	Tab 12A
Intertidal sediment - Littoral seagrass - on peat, clay or chalk		
Intertidal sediment - Artificial littoral seagrass		
Intertidal sediment - Littoral biogenic reefs - Mussels		

Intertidal sediment - Littoral biogenic reefs – Sabellaria	Intertidal biogenic reefs	Tab 10A
Intertidal sediment - Artificial littoral biogenic reefs		
Broad habitat type: Rocky shore		
Rocky shore - High energy littoral rock	Rocky shore	Tab 19A
Rocky shore - Moderate energy littoral rock		
Rocky shore - Low energy littoral rock		
Rocky shore - Features of littoral rock		
Rocky Shore - Features of littoral rock - on peat, clay or chalk		
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		
Hedgerows and lines of trees habitats		
Broad habitat type: Individual trees		
Individual trees – Rural tree	Individual trees	Tab 9A
Individual trees – Urban tree		
Broad habitat type: Hedgerows and lines of trees		
Hedgerows and lines of trees - Line of trees	Line of trees	Tab 16A
Hedgerows and lines of trees - Line of trees - associated with bank or ditch		
Hedgerows and lines of trees – Ecologically valuable line of trees		
Hedgerows and lines of trees - Ecologically valuable line of trees - associated with bank or ditch		
Hedgerows and lines of trees – Non-native and ornamental hedgerow	No assessment required - condition fixed at Poor	N/A
Hedgerows and lines of trees - Native hedgerow	Hedgerow	Tab 8A
Hedgerows and lines of trees - Native hedgerow - associated with bank or ditch		
Hedgerows and lines of trees - Native hedgerow with trees		
Hedgerows and lines of trees - Native hedgerow with trees - associated with bank or ditch		
Hedgerows and lines of trees - Species-rich native hedgerow		
Hedgerows and lines of trees - Species-rich native hedgerow - associated with bank or ditch		
Hedgerows and lines of trees - Species-rich native hedgerow with trees		
Hedgerows and lines of trees - Species-rich native hedgerow with trees - associated with bank or ditch		
Watercourse habitats		
Broad habitat type: Watercourse		
Watercourse – Ditches	Ditches	Tab 4A

text.

Link to sheet (up to 10 habitat parcels)
N/A
N/A
Tab 23B
Tab 6B
Tab 5B
Tab 6B
Tab 17B
Tab 6B
Tab 20B
N/A
Tab 20B
Tab 7B
Tab 20B
Tab 7B
Tab 20B
N/A
Tab 20B
N/A
Tab 7B
Tab 20B
Tab 14B
Tab 14B
Tab 18B
Tab 14B
Tab 18B
Tab 14B
Tab 18B
Tab 6B
Tab 1B
Tab 22B
Tab 21B
Tab 15B
Tab 1B

Tab 21B
Tab 22B
N/A
Tab 22B
N/A
Tab 22B
N/A
Tab 22B
N/A
Tab 22B
N/A
Tab 22B
N/A
Tab 22B
N/A
Tab 22B
N/A
Tab 22B
N/A
Tab 23B
N/A
Tab 24B
Tab 25B
Tab 2B
Tab 3B
Tab 11B
Tab 13B
Tab 12B

Tab 10B
Tab 19B
Tab 9B
Tab 16B
N/A
Tab 8B
Tab 4B

Survey Cover Sheet			
Date		Site name or location	
Weather conditions		Project or development name	
Surveyor name		On-site or off-site	
Survey reference		Reason for assessment (if not baseline condition survey)	
Notes			

Site or location	Condition sheets	Total number of condition sheets used, or habitat parcels	Number of parcels of each condition achieved				
			Good	Fairly Good	Moderate	Fairly Poor	Poor
	Coastal						
	Coastal lagoons						
	Coastal saltmarsh						
	Ditches						
	Grassland low distinctiveness						
	Grassland medium, high, very high distinctiveness						
	Heathland						
	Hedgerow						
	Individual trees						
	Intertidal biogenic reefs						
	Intertidal hard structures						
	Intertidal seagrass						
	Intertidal sediment						

	Lakes						
	Limestone pavement						
	Line of trees						
	Orchard						
	Ponds						
	Rocky shore						
	Scrub						
	Sparsely vegetated land						
	Urban						
	Wetland						
	Woodland						
	Wood-pasture and parkland						

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[illegible]

Condition Sheet: COASTAL Habitat Type			
UK Habitat Classification (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			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The habitat is a good representation of the habitat type it has been identified as: 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 be a good example of the relevant habitat. Note - this criterion is essential for achieving Good condition.		
B	Vegetation structure (sward height variation, zonation) is varied and not uniform.		
C	Naturally open ground or bare surfaces are present as part of a sequence of colonisation and succession.		
D	Coastal processes needed to support the habitat are functional and are not modified by hard engineering or other forms of negative intervention.		
E	The landform reflects the interaction of coastal processes and geology, and there is a varied topography present supporting the relevant range of habitat types.		
F	There is an absence of invasive non-native species ¹ (as listed on Schedule 9 of WCA ²). Combined cover of species indicative of sub-optimal condition ³ 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.		

G	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub covers less than 10% of area within the habitat or bare substrate matrix. Blocks of scrub or woodland, which might be desirable in their own right should be classified and mapped separately.		
H	Water quality and quantity (for example, seasonal fluctuations in dune slacks or seepages on cliff slopes) is sufficient to support the range of water-dependent parts of the habitat.		
Essential criterion achieved (Yes or No)			
Number of criteria passed			
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved x/✓	
Passes 7 or 8 criteria including essential criterion A	Good (3)		
Passes 5 or 6 criteria; OR Passes 7 criteria excluding essential criterion A	Moderate (2)		
Passes 4 or fewer criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes Footnote 1 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 2 – Wildlife and Countryside Act 1981 (as amended). Footnote 3 - General coastal species indicative of sub-optimal condition: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, bramble, white willow <i>Salix alba</i> hybrids, and non-native garden plants. Grassland species indicative of sub-optimal condition: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i> and cow parsley <i>Anthriscus sylvestris</i>. Heathland species indicative of sub-optimal condition: bracken <i>Pteridium aquilinum</i>. There may be additional relevant species local to the region and/or site.			

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Condition Sheet: COASTAL Habitat Type

UK Habitat Classification (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

Site name and location		On-site or off-site									
Limitations (if applicable)		Survey reference (if relating to a wider survey)									
		Habitat parcel reference									
Condition Assessment Criteria		Grid reference									
		Criterion passed (Yes or No)									
A	The habitat is a good representation of the habitat type it has been identified as: 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 be a good example of the relevant habitat. Note - this criterion is essential for achieving Good condition.										
B	Vegetation structure (sward height variation, zonation) is varied and not uniform.										
C	Naturally open ground or bare surfaces are present as part of a sequence of colonisation and succession.										
D	Coastal processes needed to support the habitat are functional and are not modified by hard engineering or other forms of negative intervention.										
E	The landform reflects the interaction of coastal processes and geology, and there is a varied topography present supporting the relevant range of habitat types.										
F	There is an absence of invasive non-native species ¹ (as listed on Schedule 9 of WCA ²). Combined cover of species indicative of sub-optimal condition ³ 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.										
G	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub covers less than 10% of area within the habitat and bare substrate matrix. Blocks of scrub or woodland, which might be desirable in their own right should be classified and mapped separately.										
H	Water quality and quantity (for example, seasonal fluctuations in dune slacks or seepages on cliff slopes) is sufficient to support the range of water-dependent parts of the habitat.										
Essential criterion achieved (Yes or No)											
Number of criteria passed											
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved x/✓									

Passes 7 or 8 criteria including essential criterion A	Good (3)										
Passes 5 or 6 criteria; OR Passes 7 criteria excluding essential criterion A	Moderate (2)										
Passes 4 or fewer criteria	Poor (1)										

Suggested enhancement interventions to improve condition score

Notes

Footnote 1 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone to invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 2 – Wildlife and Countryside Act 1981 (as amended).

Footnote 3 - 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, white willow *Salix alba* hybrids, and non-native 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* and cow parsley *Anthriscus sylvestris*.

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

There may be additional relevant species local to the region and/or site.

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[illegible]

around the

k *Rumex obtusifolius*,

s, common nettle

Condition Sheet: COASTAL LAGOONS Habitat Type						
EUNIS Habitat Type(s)						
Coastal lagoons						
Site name and location				On-site or off-site		
Limitations (if applicable)				Survey reference (if relating to a wider survey)		
Grid reference				Habitat parcel reference		
Habitat Description						
The coastal lagoons EUNIS habitat description is available here: EUNIS -Factsheet for Coastal lagoons (europa.eu)						
Habitat Attributes to Record						
The following information should be recorded within the condition assessment sheet: • Extent of lagoon waterbody¹; • Description of presence of typical communities and biotopes; • Description of species diversity and community composition²; • Salinity in parts per thousand (ppt); • Presence and abundance of non-native species; • Observations on coastal process functioning and any human physical modifications present; • Percentage 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; and • Observations of the functioning and state of the lagoon banks.						
Condition Assessment Criteria						
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per criterion	Notes (such as justification)
A	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale ³ ; or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 4.	No invasive non-native species are present above 'Frequent' on the SACFOR scale ³ ; or they occupy between 1-10% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 4.	One or more invasive non-native species are 'Abundant' on the SACFOR scale ³ ; they occupy more than 10% of the habitat; or a high-risk species indicative of sub-optimal condition is present – GB Non-native Species Secretariat should be notified, see Footnote 4.		
B	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ⁵ .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ⁵ .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ⁵ .		
C	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).		

D	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (MCS) beach litter survey method, the number of items of litter does not exceed $0.0036 \text{ m}^{-1} \text{ min}^{-1} \text{ person}^{-1}$, equivalent to up to 20 items per person per 100 m per hour. See Footnote 6 for details.	Following the MCS beach litter survey method, the number of items of litter does not exceed $0.0078 \text{ m}^{-1} \text{ min}^{-1} \text{ person}^{-1}$, equivalent to between 21 and 47 items per person per 100 m per hour. See Footnote 6 for details.	Following the MCS beach litter survey method, the number of items of litter exceeds $0.0078 \text{ m}^{-1} \text{ min}^{-1} \text{ person}^{-1}$, equivalent to more than 47 items per person per 100 m per hour. See Footnote 6 for details.		
E	Salinity	Salinity is between 15 - 40 ppt.	Salinity values are close to (but still within) the ends of range acceptable for lagoons (15 - 40 ppt).	Salinity values are either hypersaline >40 ppt or hyposaline <15 ppt.		
F	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.		
G	Physical damage of lagoon banks	No physical damage present ⁷ .	Only small, isolated patches of physical damage present ⁷ .	Evidence of significant physical damage ⁷ .		
H	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

Result Achieved

TOTAL SCORE 18-24 (75-100%) = GOOD CONDITION

TOTAL SCORE 12-17 (50-75%) = MODERATE CONDITION

TOTAL SCORE 8-11 (0-50%) = POOR CONDITION

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – The extent of the lagoon waterbody 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 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](#)

For assessment of species characteristic of anoxic environments, 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 the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List (updated 2020)* [online]. Available on:

[Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

Footnote 4 - 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 5 - Peak bloom time is July – September.

Footnote 6 - Please use the method as set out in Nelms et al (2017) to identify litter $\text{m}^{-1} \text{min}^{-1} \text{person}^{-1}$, which is summarised below:

Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method:

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:

[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data \(researchgate.net\)](#)

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 (MSFD) 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 7 - Sources of physical damage include: excessive poaching, damage from machinery use, damaging management or public access activities.

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G	Physical damage of lagoon banks	No physical damage present ⁷ .	Only small, isolated patches of physical damage present ⁷ .	Evidence of significant physical damage ⁷ .															
H	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					Result Achieved														
TOTAL SCORE 18-24 (75-100%) = GOOD CONDITION																			
TOTAL SCORE 12-17 (50-75%) = MODERATE CONDITION																			
TOTAL SCORE 8-11 (0-50%) = POOR CONDITION																			
Suggested enhancement interventions to improve condition score																			
Footnotes																			
Footnote 1 – The extent of the lagoon waterbody 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 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) <i>Coastal saline lagoons and the Water Framework Directive</i> [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 environments, e.g. presence of Capitellid worms, further information on the SACFOR scale can be found on the JNCC website at: JNCC (No date) <i>SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards</i> [online]. Available from: sacfor.pdf (jncc.gov.uk) Footnote 3 - Abundances estimated using SACFOR scales details available here: JNCC (No date) <i>SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards</i> [online]. Available from: sacfor.pdf Use the non-native species list available here: Microsoft Word - UK_Marine_NIS_priority_list_2020 (nonnativespecies.org) DEFRA (2022) <i>UK Marine Non-Indigenous Species Priority List (updated 2020)</i> [online]. Available on: Marine Pathways Group » NNSS (nonnativespecies.org) Footnote 4 - High-risk species indicative of sub-optimal condition at time of publication include: • <i>Ficopomatus enigmaticus</i> - Trumpet tube worm • <i>Styela clava</i> - Asian tunicate; leathery sea squirt, club tunicate • <i>Corella eumyota</i> - Orange-tipped sea squirt • <i>Grateloupia turuturu</i> - Devil's tongue weed, gracie, red menace and red tide • <i>Undaria pinnatifida</i> - Asian kelp, wakame • <i>Schizoporella japonica</i> - Orange ripple bryozoan • <i>Sargassum muticum</i> - Wire weed • <i>Hemigrapsus sanguineus</i> - Asian shore crab Please check for updates of high-risk species. Footnote 5 - Peak bloom time is July – September. Footnote 6 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below: Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method: NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. <i>Science of the Total Environment</i> [online], 579. Available from: (PDF) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data (researchgate.net) 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 (MSFD) by the MSFD Technical Group on Marine Litter. VAN LOON, W. ET AL. (2020). <i>A European Threshold Value and Assessment Method for Macro Litter on Coastlines</i>. 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 Footnote 7 - Sources of physical damage include: excessive poaching, damage from machinery use, damaging management or public access activities.																			

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Condition Sheet: COASTAL SALTMARSH Habitat Type**EUNIS Habitat Type(s)****Saltmarshes and saline reedbeds****Artificial saltmarshes and saline reedbeds**

Site name and location	
Limitations (if applicable)	
Grid reference	

Habitat Description

[EUNIS -Factsheet for Coastal saltmarshes and saline reedbeds \(europa.eu\)](https://eunis.europa.eu/en/habitat-type/coastal-saltmarshes-and-saline-reedbeds)

Habitat Attributes to Record

The following information should be recorded within the condition assessment sheet:

- List of biological communities and species - including whether they are representative or characteristic
- Observations on coastal process functioning and any human physical modifications present;
- Observations on zonation and transitions to other habitats, including variations in vegetation
- Observations of naturally open ground or bare surfaces such as creeks or pans being present
- Presence and abundance of non-native species;
- Assessment of litter; and
- Percentage cover of algal growths that could be attributed to nutrient enrichment.

Condition Assessment Criteria

Indicator		Good (3 points)	Moderate (2 points)
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.

B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 2 for details.	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 2 for details.
C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ³ .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ³ .
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).
E	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 4.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 4.
F	Zonation and transition to other habitats	Zonation of vegetation or communities is clear and continuous ⁵ . 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 ⁵ .

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

Suggested enhancement interventions to improve condition score

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: JN *sublittoral taxa from 1990 onwards* [online]. Available from:

[sacfor.pdf \(jncc.gov.uk\)](#)

Use the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online] [Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

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 - Peak bloom time is July – September.

Footnote 4 - Please use the method as set out in Nelms et al (2017) to identify litter on beaches. Collect litter along a linear transect parallel with the strandline, located between the beach and the water. Assign gathered items of litter to one of 101 item categories, and further classify them (e.g. medical, sanitary, faeces, paper, wood, glass, pottery/ceramic) using the MCS classification. Remove them from the beach. Litter identification guides may be useful, please see Nelms et al. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment. *Environment International* [online], 579. Available from:

[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment](#)

The indicator thresholds for litter are based on the methods in Van Loon et al (2020), *Marine Strategy Framework Directive (MSFD) Technical Guidance* by the MSFD Technical Group.

VAN LOON, W. ET AL. (2020). *A European Threshold Value and Assessment Method for Macro Litter on Coasts*. the European Union, Luxembourg. [online] Available from:

[\(PDF\) A European Threshold Value and Assessment Method for Macro Litter on Coasts](#)

Footnote 5 - Vegetation zones can be described differently but these are the most likely

1. Pioneer – open communities with one or more of the following – *Spartina* spp., *Salix* spp.
lowest neap tides. 290-c.600 submersions per year.

2. Low marsh – generally closed communities with at least *Puccinellia maritima* and *Atriplex* spp.
most tides. 350-400 submergences per year. Middle marsh – generally closed communities with
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 – *Fes* spp.
species. Zone covered only by highest spring tides. Minimum 25 submergences, maximum 50

5. Transition zone – vegetation intermediate between the high marsh and adjoining non-marsh
storm events but can have salt spray influence from strong onshore winds.

On-site or off-site		
Survey reference (if relating to a wider survey)		
Habitat parcel reference		
characteristic of disturbance and or pollution; ; on structure and sward height¹; it in a mosaic with vegetated areas;		
Poor (1 point)	Score per indicator	Notes (such as justification)
Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.		

One or more invasive non-native species 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 – GB Non-native Species Secretariat should be notified, see Footnote 2 for details.		
Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ³ .		
Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).		
Following the MCS beach litter survey method the number of items of litter exceeds $0.0078 \text{ m}^{-1} \text{ min}^{-1} \text{ person}^{-1}$ equivalent to more than 47 items of litter per person per 100 m per hour. See Footnote 4.		
Zonation of vegetation or communities is not clearly visible or is significantly impacted by human modification of the shoreline ⁵ . Or transitions to other habitats are restricted in more than 20% of the habitat boundaries.		
Total score (out of a possible 18)		
	Result Achieved	

ICC (No date) *SACFOR abundance scale used for both littoral and*

e]. Available on:

)

$\text{m}^{-1} \text{min}^{-1} \text{person}^{-1}$, which is summarised below:
ack of the beach and the strandline. The transect should be 100m long.
into 12 material groups (plastic, polystyrene, rubber, cloth, metal,
ations. Following this, record and sum all anthropogenic litter items and
elms et al (2017) for more details on the method:
nationwide assessment using citizen science data. Science of the Total

[ent using citizen science data \(researchgate.net\)](#)

which is guidance developed within the Common Implementation
Group on Marine Litter.

d for Macro Litter on Coastlines. EUR 30347 EN, Publications Office of

[stlines \(researchgate.net\)](#)

ely to be found (seaward to landward):

cornia spp. and / or *Aster tripolium*. Zone covered by all tides except the

triplex portulacoides as well as the previous species; zone covered by

unities with *Limonium* spp. and / or *Plantago maritima*, as well as low

.

stuka rubra, *Armeria maritima*, *Elytrigia* spp., as well as the middle marsh

imum 150 submergences per year.

on-halophytic areas. Zone covered only occasionally during extreme

[Return to 'Selecting condition sheet' tab](#)

TOTAL SCORE 9 - 13 (50-75%) = MODERATE CONDITION

TOTAL SCORE 6 - 8 (0-50%) = POOR CONDITION

Suggested enhancement interventions to improve condition score

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]. Availa

[sacfor.pdf \(jncc.gov.uk\)](#)

Use the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSs \(nonnativespecies.org\)](#)

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 - Peak bloom time is July – September.

Footnote 4 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below:

Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method:

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:

[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data \(researchgate.net\)](#)

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 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] Av

[\(PDF\) A European Threshold Value and Assessment Method for Macro Litter on Coastlines \(researchgate.net\)](#)

Footnote 5 - 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. and / or *Aster tripolium*. Zone covered by all tides except the lowest neap tides. 290-c.600 submersions
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. 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 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 winds.

[illegible]



able from:

item categories, and
and sum all

tive (MSFD) by the

available from:

per year.
Middle marsh –
ing tides. Minimum 25
from strong onshore

Condition Sheet: DITCH Habitat Type			
Habitat Type			
Watercourses - Ditches			
Habitat Description			
See the Biodiversity Metric 4.0 User Guide.			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.		
B	A range of emergent, submerged and floating-leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length.		
C	There is less than 10% cover of filamentous algae and or duckweed <i>Lemna</i> spp. (these are signs of eutrophication).		
D	A fringe of aquatic marginal vegetation is present along more than 75% of the ditch.		
E	Physical damage is evident along less than 5% of the ditch, with examples of damage including: excessive poaching, damage from machinery use or storage, or any other damaging management activities.		
F	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.		
G	Less than 10% of the ditch is heavily shaded.		
H	There is an absence of non-native plant and animal species ¹ .		
Number of criteria passed			
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved x/✓	
Passes 8 criteria	Good (3)		
Passes 6 or 7 criteria	Moderate (2)		
Passes 5 or fewer criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – This includes any species listed on the Water Framework Directive UKTAG GB High Impact Species List: Water Framework Directive (WFD) UKTAG (2021) <i>Classification of aquatic alien species according to their level of impact</i> [online]. Available from: UKTAG classification of alien species working paper v8.pdf (wfd.uk.org)			

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

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Condition Sheet: DITCH Habitat Type												
Habitat Type												
Watercourses - Ditches												
Habitat Description												
See the Biodiversity Metric 4.0 User Guide.												
Site name and location			On-site or off-site									
Limitations (if applicable)			Survey reference (if relating to a wider survey)									
			Habitat parcel reference									
			Grid reference									
Condition Assessment Criteria												
			Criterion passed (Yes or No)									
A	The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.											
B	A range of emergent, submerged and floating-leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length.											
C	There is less than 10% cover of filamentous algae and or duckweed <i>Lemna</i> spp. (these are signs of eutrophication).											
D	A fringe of aquatic marginal vegetation is present along more than 75% of the ditch.											
E	Physical damage is evident along less than 5% of the ditch, with examples of damage including: excessive poaching, damage from machinery use or storage, or any other damaging management activities.											
F	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.											
G	Less than 10% of the ditch is heavily shaded.											
H	There is an absence of non-native plant and animal species ¹ .											
Number of criteria passed												
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved ×/✓										
Passes 8 criteria	Good (3)											
Passes 6 or 7 criteria	Moderate (2)											
Passes 5 or fewer criteria	Poor (1)											
Suggested enhancement interventions to improve condition score												

Footnotes

Footnote 1 – This includes any species listed on the Water Framework Directive UKTAG GB High Impact Species List: Water Framework Directive (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 \(wfd.uk.org\)](#)

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

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

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Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)		
UK Habitat Classification (UKHab) Habitat Type(s)		
Grassland - Modified grassland		
Site name and location		On-site or off-site
Limitations (if applicable)		Survey reference (if relating to a wider survey)
Grid reference		Habitat parcel reference
Habitat Description		
ukhab – UK Habitat Classification		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness	
B	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 vertebrates and invertebrates to live and breed.	
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	
D	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.	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	
Essential criterion achieved (Yes or No)		
Number of criteria passed		
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	
Suggested enhancement interventions to improve condition score		
Footnotes		

Footnote 1 – Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

[illegible]

s, common nettle *Urtica dioica*, creeping

s where not exceeding 10% cover.

arcels accordingly, applying a buffer zone

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)												
UK Habitat Classification (UKHab) Habitat Type(s)												
Grassland - Modified grassland												
Habitat Description												
ukhab – UK Habitat Classification												
Site name and location		On-site or off-site										
		Survey reference (if relating to a wider survey)										
Limitations (if applicable)		Habitat parcel reference										
		Grid reference										
Condition Assessment Criteria												Notes (such as justification)
		Criterion passed (Yes or No)										
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.											
B	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 vertebrates and invertebrates to live and breed.											
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.											
D	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.											
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .											
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.											
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).											
Essential criterion achieved (Yes or No)												
Number of criteria passed												
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/✓										
Passes 6 or 7 criteria including passing essential criterion A	Good (3)											
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)											
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)											
Suggested enhancement interventions to improve condition score												
Footnotes												
Footnote 1 – Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i> .												
Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.												
Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.												
Footnote 4 – Wildlife and Countryside Act 1981 (as amended).												

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Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)			
UK Habitat Classification (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'] [Not to be confused with the Tall forbs secondary code – see UKHab guidance for details.] Grassland - Upland acid grassland Grassland - Upland calcareous grassland Grassland - Upland hay meadows Sparsely vegetated land - Calaminarian grassland			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Habitat Description			
ukhab – UK Habitat Classification			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present. Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.		
B	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.		
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ¹ .		
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.		

E	Combined cover of species indicative of sub-optimal condition² 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. If any invasive non-native plant species³ (as listed on Schedule 9 of WCA⁴) are present, this criterion is automatically failed.		
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.		
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)			
Number of criteria passed			
Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓	
Acid Grassland Types (Result out of 5 criteria)			
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)		
Non-acid grassland Types (Result out of 6 criteria)			
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)		
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)		
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)		
Suggested enhancement interventions to improve condition score			
Notes Footnote 1 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover. Footnote 2 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>. There may be additional relevant species local to the region and or site. Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement. Footnote 4 – Wildlife and Countryside Act 1981 (as amended).			

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[illegible]

Number of criteria passed													
Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓											
Acid Grassland types (Result out of 5 criteria)													
Passes 5 criteria	Good (3)												
Passes 3 or 4 criteria	Moderate (2)												
Passes 2 or fewer criteria	Poor (1)												
Non-acid grassland types (Result out of 6 criteria)													
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)												
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)												
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)												
Suggested enhancement interventions to improve condition score													
Notes													
Footnote 1 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.													
Footnote 2 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i> . There may be additional relevant species local to the region and or site.													
Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.													
Footnote 4 – Wildlife and Countryside Act 1981 (as amended).													

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Condition Sheet: HEATHLAND Habitat Type			
UK Habitat Classification (UKHab) Habitat Type(s)			
Heathland and shrub - Lowland heathland Heathland and shrub - Mountain heaths and willow scrub Heathland and shrub - Upland heathland			
Habitat Description			
ukhab – UK Habitat Classification			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Central grid reference of habitat		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The heathland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific heathland habitat type. Indicator shrubs, grasses, forbs and lower (non-vascular) plants listed by UKHab for the specific heathland habitat type are consistently present. Note - this criterion is essential for achieving Good condition.		
B	There are at least two dwarf shrub species Frequent¹, and cover of dwarf shrubs is between 25-75% for lowland heathland, 50-75% for upland dry heath, or >20% for upland wet heath. Note - this criterion is essential for achieving Good condition.		
C	All heather <i>Calluna vulgaris</i> age-classes (pioneer, degenerate and mature) present with at least 10% pioneer heather in the lowlands or at least 10% degenerate or mature in the uplands. Note - this criterion is essential for achieving Good condition.		
D	Unshaded bare ground is between 1-10%. Note - this criterion is essential for achieving Good condition.		
E	There is an absence of invasive non-native plant species listed on Schedule 9 of WCA² and shallon <i>Gaultheria shallon</i>³. Note - this criterion is essential for achieving Good condition.		
F	No signs of disturbance of sensitive areas⁴, including managed burns.		
G	No more than 33% of heather shoots have been recently grazed, or flowering heather plants are at least Frequent¹ in autumn.		
H	The canopy cover of scattered trees and or scrub (not including gorse <i>Ulex</i> spp.) is: •less than 20% for upland heaths; •less than 15% for lowland dry heaths; and •less than 10% for lowland wet heaths.		
I	Total gorse cover is less than 50%, with common gorse <i>Ulex europaeus</i> less than 25%.		

J	The cover of bracken <i>Pteridium aquilinum</i> is less than 5% ⁵ .		
K	No signs of any damaging activities ⁶ or contamination to the habitat such as: artificial drains, peat extraction, silt, leachate or eutrophication.		
Essential criteria for achieving Good condition achieved (Yes or No)			
Number of criteria passed			
Condition Assessment Result (out of 11 criteria)	Condition Assessment Score	Score Achieved ×/✓	
Passes 9 - 11 criteria including all essential criteria A - E.	Good (3)		
Passes 7 or 8 criteria; OR Passes 9 - 10 criteria but fails any essential criteria (criteria A - E).	Moderate (2)		
Passes 6 or fewer criteria.	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – According to the relative abundance DAFOR scale – Dominant, Abundant, Frequent, Occasional or Rare. Footnote 2 – Wildlife and Countryside Act 1981 (as amended). Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 4 – Professional judgement should be used to assess this and evidence should be provided according to the INSTRUCTIONS Tab of this spreadsheet. Definition of sensitive areas: (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 moss <i>Sphagnum</i> spp., bilberry <i>Vaccinium myrtillus</i>, liverworts and or lichens. (e) Areas with noticeably uneven structure, at a spatial scale of around 1 m² or less. The unevenness (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, peat hags and erosion gullies within 10 m of the edge of watercourses. Footnote 5 - Cover of bracken may exceed 5% where there is an identified biodiversity benefit, for example bracken beds in the South Pennines as nesting sites for twite <i>Linaria flavirostris</i>. Footnote 6 - Damaging activities include: accidental or unmanaged fires; managed fires on wet heath; excessive poaching; damage from machinery use or storage; and damaging levels of public access resulting in trampling and or litter.			

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Condition Sheet: HEATHLAND Habitat Type													Return to 'Selecting condition sheet' tab	
UK Habitat Classification (UKHab) Habitat Type(s)														
Heathland and shrub - Lowland heathland														
Heathland and shrub - Mountain heaths and willow scrub														
Heathland and shrub - Upland heathland														
Habitat Description														
ukhab – UK Habitat Classification														
Site name and location		On-site or off-site												
		Survey reference (if relating to a wider survey)												
Limitations (if applicable)		Habitat parcel reference												
		Grid reference												
Condition Assessment Criteria														
		Criterion passed (Yes or No)												Notes (such as justification)
A	The heathland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific heathland habitat type. Indicator shrubs, grasses, forbs and lower (non-vascular) plants listed by UKHab for the specific heathland habitat type are consistently present. Note - this criterion is essential for achieving Good condition.													
B	There are at least two dwarf shrub species Frequent ¹ , and cover of dwarf shrubs is between 25-75% for lowland heathland, 50-75% for upland dry heath, or >20% for upland wet heath. Note - this criterion is essential for achieving Good condition.													
C	All heather <i>Calluna vulgaris</i> age-classes (pioneer, degenerate and mature) present with at least 10% pioneer heather in the lowlands or at least 10% degenerate or mature in the uplands. Note - this criterion is essential for achieving Good condition.													
D	Unshaded bare ground is between 1-10%. Note - this criterion is essential for achieving Good condition.													
E	There is an absence of invasive non-native plant species listed on Schedule 9 of WCA ² and shallon <i>Gaultheria shallon</i> ³ . Note - this criterion is essential for achieving Good condition.													
F	No signs of disturbance of sensitive areas ⁴ , including managed burns.													
G	No more than 33% of heather shoots have been recently grazed, or flowering heather plants are at least Frequent ¹ in autumn.													
H	The canopy cover of scattered trees and or scrub (not including gorse <i>Ulex</i> spp.) is: •less than 20% for upland heaths; •less than 15% for lowland dry heaths; and •less than 10% for lowland wet heaths.													
I	Total gorse cover is less than 50%, with common gorse <i>Ulex europaeus</i> less than 25%.													
J	The cover of bracken <i>Pteridium aquilinum</i> is less than 5% ⁵ .													
K	No signs of any damaging activities ⁶ or contamination to the habitat such as: artificial drains, peat extraction, silt, leachate or eutrophication.													
Essential criteria for achieving Good condition achieved (Yes or No)														
Number of criteria passed														
Condition Assessment Result (out of 11 criteria)	Condition Assessment Score	Score Achieved x/✓												
Passes 9 - 11 criteria including all essential criteria A - E.	Good (3)													
Passes 7 or 8 criteria; OR Passes 9 - 10 criteria but fails any essential criteria (criteria A - E).	Moderate (2)													
Passes 6 or fewer criteria.	Poor (1)													
Suggested enhancement interventions to improve condition score														
Footnotes														

Footnote 1 – According to the relative abundance DAFOR scale – Dominant, Abundant, Frequent, Occasional or Rare.

Footnote 2 – Wildlife and Countryside Act 1981 (as amended).

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Professional judgement should be used to assess this and evidence should be provided according to the INSTRUCTIONS Tab of this spreadsheet.

Definition of sensitive areas:

- (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 moss *Sphagnum* spp., bilberry *Vaccinium myrtillus*, liverworts and or lichens.
- (e) Areas with noticeably uneven structure, at a spatial scale of around 1 m² or less. The unevenness (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, peat hags and erosion gullies within 10 m of the edge of watercourses.

Footnote 5 - Cover of bracken may exceed 5% where there is an identified biodiversity benefit, for example bracken beds in the South Pennines as nesting sites for twite *Linaria flavirostris*.

Footnote 6 - Damaging activities include: accidental or unmanaged fires; managed fires on wet heath; excessive poaching; damage from machinery use or storage; and damaging levels of public access resulting in trampling and or litter.

Condition sheet: HEDGEROW Habitat Types					
Habitat Type					
Native hedgerow Native hedgerow - associated with bank or ditch Native hedgerow with trees Native hedgerow with trees - associated with bank or ditch Species-rich native hedgerow Species-rich native hedgerow - associated with bank or ditch Species-rich native hedgerow with trees Species-rich native hedgerow with trees - associated with bank or ditch					
Habitat Description					
See the Biodiversity Metric 4.0 User Guide Section 9. 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 from these functional groups which pass or fail the 'favourable condition' criteria.					
Site name and location				On-site or off-site	
Limitations (if applicable)				Survey reference (if relating to a wider survey)	
Grid reference				Habitat parcel reference	
Condition Assessment Criteria					
A series of ten attributes, representing key physical characteristics are used for this assessment. This assessment is based on the Hedgerow Survey Handbook ¹ and Favourable Conservation Status document ² . For further clarification please refer to the Hedgerow Survey Handbook. 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 from these functional groups which pass or fail the 'favourable condition' criteria.					
Hedgerow favourable condition attributes					
Attributes and functional groupings (A, B, C, D and E)		Criteria - the minimum requirements for 'favourable condition'	Description	Criterion passed (Yes or No)	Notes (such as justification)
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 the 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 (such as blackthorn <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are >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).		
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	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 hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow.		
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 <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.		

D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA ³) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website ⁴ , as well as the BSBI website ⁵ where the 'Online Atlas of the British and Irish Flora' ⁶ contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .		
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 hedgerow cutting).		
Additional group - applicable to hedgerows with trees only					
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient ⁸), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.		
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.		
The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the metric. The scores for each are set out in the tables below.					
Condition categories for hedgerows without trees					
Category	Category Requirements	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 4 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and 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 and B2 = Poor condition).	1			
Score achieved:					
Condition categories for hedgerows with trees					
Category	Category Requirements	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 and 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 and B2 = Poor condition).	1			
Score achieved:					
Suggested enhancement interventions to improve condition score					
Footnotes					
Footnote 1 – DEFRA (2007) <i>Hedgerow Survey Handbook. A standard procedure for local surveys in the UK.</i> [online] Available on: hedgelink.org.uk					
Footnote 2 – STALEY, J.T. ET AL. (2020) <i>Definition of Favourable Conservation Status for Hedgerows.</i> [online] Available on: Definition of Favourable Conservation Status for Hedgerows - RP2943 (naturalengland.org.uk)					
Footnote 3 – Wildlife and Countryside Act 1981 (as amended).					
Footnote 4 – CHEFFINGS, C. M. et al. (2005) <i>The Vascular Plant Red Data List for Great Britain.</i> Species Status 7: 1-116. [online] Available on: The Vascular Plant Red Data List for Great Britain (Species Status No. 7) JNCC Resource Hub					
Footnote 5 – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). <i>Definitions: wild, native or alien?</i> [online] Available on: Definitions: wild, native or alien? – Botanical Society of Britain & Ireland (bsbi.org)					
Footnote 6 – BSBI and Biological Records Centre (BRC) (2022) <i>Online Atlas of the British and Irish Flora.</i> [online] Available on: Acknowledgements Online Atlas of the British and Irish Flora (brcc.ac.uk)					
Footnote 7 – GB NON-NATIVE SPECIES SECRETARIAT (GBNNS) (2022) Available on: Home » NNSS (nonnativespecies.org)					
Footnote 8 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)					

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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 hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow 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 <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.																
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA ³) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website ⁴ , as well as the BSBI website ⁵ where the 'Online Atlas of the British and Irish Flora' ⁶ contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .																
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 hedgerow cutting).																
Additional group - applicable to hedgerows with trees only																			
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient ⁸), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.																
E3.	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.																

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees

Category	Category Requirements	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 4 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and 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 and B2 = Poor condition).	1
Score achieved:		

Condition categories for hedgerows with trees

Category	Category Requirements	Metric score
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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 and 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 and B2 = Poor condition).	1	
Score achieved:			
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – DEFRA (2007) <i>Hedgerow Survey Handbook. A standard procedure for local surveys in the UK</i>. [online] Available on: layout (hedgelink.org.uk) Footnote 2 – STALEY, J.T. ET AL. (2020) <i>Definition of Favourable Conservation Status for Hedgerows</i>. [online] Available on: Definition of Favourable Conservation Status for Hedgerows - RP2943 (naturalengland.org.uk) Footnote 3 – Wildlife and Countryside Act 1981 (as amended). Footnote 4 – CHEFFINGS, C. M. et al. (2005) <i>The Vascular Plant Red Data List for Great Britain</i>. Species Status 7: 1-116. [online] Available on: The Vascular Plant Red Data List for Great Britain (Species Status No. 7) JNCC Resource Hub Footnote 5 – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). <i>Definitions: wild, native or alien?</i> [online] Available on: Definitions: wild, native or alien? – Botanical Society of Britain & Ireland (bsbi.org) Footnote 6 – BSBI and Biological Records Centre (BRC) (2022) <i>Online Atlas of the British and Irish Flora</i>. [online] Available on: Acknowledgements Online Atlas of the British and Irish Flora (brc.ac.uk) Footnote 7 – GB NON-NATIVE SPECIES SECRETARIAT (GBNNS) (2022) Available on: Home » NNSS (nonnativespecies.org) Footnote 8 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)			

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Condition Sheet: INDIVIDUAL TREES Habitat Type**Habitat Type(s)****Individual trees – Urban trees****Individual trees – Rural trees**

Complete a condition sheet for each tree or block of trees.

Please see separate Line of trees condition sheet for a line of Rural trees.**Habitat Description****Individual trees (description applied to the urban or rural environment):**

Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):

Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those also former field boundary trees incorporated into developments. Canopies must overlap continuously. Groups of urban trees that assessed within this category.

Site name and location		On-site or off-site
Limitations (if applicable)		Survey reference (if relating to a wider survey)
Grid reference		Habitat parcel reference
Condition Assessment Criteria		Criterion passed (Yes or No)

A	The tree is a native species (or at least 70% within the block are native species).	
B	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).	
C	The tree is mature (or more than 50% within the block are mature).	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	
Number of criteria passed		
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved x/✓
Passes 5 or 6 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		
Suggested enhancement interventions to improve condition score		

Footnotes

Footnote 1 - See gov.uk standing advice on ancient and veteran trees. Available from:

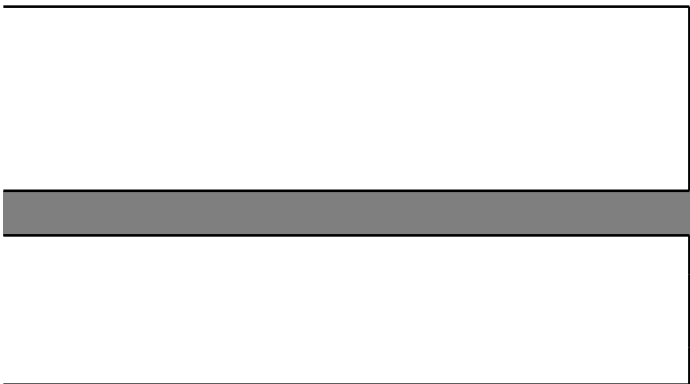
[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

and:

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

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along urban streets, highways, railways and canals, and : don't match the descriptions for woodland may be	
Notes (such as justification)	

[illegible]



Condition Sheet: INDIVIDUAL TREES Habitat Type															
Habitat Type(s)															
Individual trees – Urban trees															
Individual trees – Rural trees															
Complete a condition sheet for each tree or block of trees.															
Please see separate Line of trees condition sheet for a line of Rural trees.															
Habitat Description															
Individual trees (description applied to the urban or rural environment):															
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.															
Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):															
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies must overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.															
Site name and location				On-site or off-site											
				Survey reference (if relating to a wider survey)											
Limitations (if applicable)				Habitat parcel reference											
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐
				Grid reference											
Condition Assessment Criteria				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
				Criterion passed (Yes or No)										Notes (such as justification)	
A	The tree is a native species (or at least 70% within the block are native species).	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
B	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).	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
C	The tree is mature (or more than 50% within the block are mature).	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
Number of criteria passed		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score		Score Achieved x/✓											
Passes 5 or 6 criteria		Good (3)		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
Passes 3 or 4 criteria		Moderate (2)		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
Passes 2 or fewer criteria		Poor (1)		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.															

Suggested enhancement interventions to improve condition score
Footnotes
Footnote 1 - See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

[Return to 'Selecting condition sheet' tab](#)

Condition Sheet: INTERTIDAL BIOGENIC REEFS Habitat Type**EUNIS Habitat Type(s)****Littoral biogenic reefs - Mussels****Littoral biogenic reefs - Sabellaria****Artificial littoral biogenic reefs****Habitat Description**

See the Biodiversity Metric 4.0 Technical Annex 2 and the below:

[Littoral biogenic reefs - JNCC Marine Habitat Classification](#)

Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	

Habitat Attributes to Record

The following information should be recorded within the condition assessment sheet:

- Percentage 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;
- Percentage 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;
- Whether the habitat distribution is constrained by human modification; and
- Water Framework Directive (WFD) classification of overlying water.

Condition Assessment Criteria

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per criterion
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are impacting the habitat.	Artificial structures present, for example groynes, that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present, for example groynes, that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.	
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 1 for details.	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 1 for details.	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 – GB Non-native Species Secretariat should be notified, see Footnote 1 for details.	

C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ² .	
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	
E	Litter (when examining a beach strandline / mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 3 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.	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 person per 100 m per hour. See Footnote 3 for details.	

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

Result Achieved

Suggested enhancement interventions to improve condition score

Footnotes

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

[sacfor.pdf \(jncc.gov.uk\)](https://jncc.gov.uk/sacfor.pdf)

Use the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnative-species.org\)](https://jncc.gov.uk/microsoft-word-uk-marine-nis-priority-list-2020-nonnative-species.org)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSS \(nonnative-species.org\)](https://jncc.gov.uk/marine-pathways-group-nnss-nonnative-species.org)

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 - Peak bloom time is July – September.

Footnote 3 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below: Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect is 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and separate anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more on the method:

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

[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data \(researchgate.net\)](https://researchgate.net/publication/317111111_Marine_anthropogenic_litter_on_British_beaches_A_10-year_nationwide_assessment_using_citizen_science_data)

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 (MSFD) 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, Office of the European Union, Luxembourg. [online] Available from:

[\(PDF\) A European Threshold Value and Assessment Method for Macro Litter on Coastlines \(researchgate.net\)](#)

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Notes (such as justification)

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EUNIS Habitat Type(s)	
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Habitat Description

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See the Biodiversity Metric 4.0 Technical Annex 2 and the below:
[Littoral biogenic reefs - JNCC Marine Habitat Classification](#)

Littoral biogenic reefs - JNCC Marine Habitat Classification

The following information should be recorded within the condition assessment sheet:	
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[illegible]

E	Litter (when examining a beach strandline / mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 3 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.	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 person per 100 m per hour. See Footnote 3 for details.												
Total Score (out of a possible 15)																
Condition Assessment Result					Result Achieved											
TOTAL SCORE 12-15 (75-100%) = GOOD CONDITION																
TOTAL SCORE 8-11 (50-75%) = MODERATE CONDITION																
TOTAL SCORE 5-7 (0-50%) = POOR CONDITION																
Suggested enhancement interventions to improve condition score																
Footnotes																
Footnote 1 - Abundances estimated using SACFOR scales details available here: JNCC (No date) <i>SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards</i> [online]. Available from: sacfor.pdf (jncc.gov.uk) Use the non-native species list available here: Microsoft Word - UK Marine NIS priority list 2020 (nonnativespecies.org) DEFRA (2022) <i>UK Marine Non-Indigenous Species Priority List</i> (updated 2020) [online]. Available on: Marine Pathways Group » NNSS (nonnativespecies.org) High-risk species indicative of sub-optimal condition at time of publication include: • <i>Didemnum vexillum</i> – Carpet sea squirt • <i>Hemigrapsus</i> spp. – Asian Shore crabs (<i>H. sanguineus</i>, <i>H. takanoi</i> or <i>H. penicillatus</i>) Please check for updates of high-risk species. Footnote 2 - Peak bloom time is July – September. Footnote 3 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below: Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 12 categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method: NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. <i>Science of the Total Environment</i> [online], 579. Available from: (PDF) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data (researchgate.net) 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). <i>A European Threshold Value and Assessment Method for Macro Litter on Coastlines</i>. EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online from: (PDF) A European Threshold Value and Assessment Method for Macro Litter on Coastlines (researchgate.net)																

[Return to 'Selecting condition sheet' tab](#)

Notes (such as justification)

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Condition Sheet: INTERTIDAL HARD STRUCTURES Habitat Type						
Artificial Habitat Type(s)						
Intertidal hard structures - Artificial hard structures						
Intertidal hard structures - Artificial features of hard structures						
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)						
Site name and location			On-site or off-site			
Limitations (if applicable)			Survey reference (if relating to a wider survey)			
Grid reference			Habitat parcel reference			
Habitat Description						
See the Biodiversity Metric 4.0 Technical Annex 2.						
Habitat Attributes to Record						
The following information should be recorded within the condition assessment sheet:						
• 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; • Percentage cover of algal growths that could be attributed to nutrient enrichment; • Water Framework Directive (WFD) classification of overlying water; and • Assessment of litter.						
Condition Assessment Criteria						
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per criterion	Notes (such as justification)
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.		
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 1 for details.	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 1 for details.	One or more invasive non-native species 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 – GB Non-native Species Secretariat should be notified, see Footnote 1 for details.		

C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ² .		
D	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 3 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.	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 person per 100 m per hour. See Footnote 3 for details.		
E	Amount of colonisation	More than three different communities of flora or fauna present.	Two or three different communities of flora or fauna present.	One or no communities of flora or fauna present.		

Total Score (out of a possible 15)

Condition Assessment Result

Result Achieved

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

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

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

Suggested enhancement interventions to improve condition score

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 the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

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
- *Schizoporella japonica* – Orange ripple bryozoan

Please check for updates of high-risk species.

Footnote 2 - Peak bloom time is July – September

Footnote 3 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below:

Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery/ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method:

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:

[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data \(researchgate.net\)](#)

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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 \(researchgate.net\)](#)

[Return to 'Selecting condition sheet' tab](#)

Condition Sheet: INTERTIDAL HARD STRUCTURES Habitat Type**Artificial Habitat Type(s)****Intertidal hard structures - Artificial hard structures****Intertidal hard structures - Artificial features of hard structures****Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)**

Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	

Habitat Description

See the Biodiversity Metric 4.0 Technical Annex 2.

Habitat Attributes to Record

The following information should be recorded within the condition assessment sheet:

- 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;
- Percentage cover of algal growths that could be attributed to nutrient enrichment;
- Water Framework Directive (WFD) classification of overlying water; and
- Assessment of litter.

Condition Assessment Criteria

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

B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 1 for details.	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 1 for details.	One or more invasive non-native species 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 – GB Non-native Species Secretariat should be notified, see Footnote 1 for details.
C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ² .
D	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (MCS) beach litter survey method, the number of items of litter does not exceed $0.0036 \text{ m}^{-1} \text{ min}^{-1} \text{ person}^{-1}$, equivalent to up to 20 items per person per 100 m per hour. See Footnote 3 for details.	Following the MCS beach litter survey method, the number of items of litter does not exceed $0.0078 \text{ m}^{-1} \text{ min}^{-1} \text{ person}^{-1}$, equivalent to between 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.	Following the MCS beach litter survey method, the number of items of litter exceeds $0.0078 \text{ m}^{-1} \text{ min}^{-1} \text{ person}^{-1}$, equivalent to more than 47 items of litter per person per 100 m per hour. See Footnote 3 for details.
E	Amount of colonisation	More than three different communities of flora or fauna present.	Two or three different communities of flora or fauna present.	One or no communities of flora or fauna 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

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 - Abundances estimated using SACFOR scales details available here: JNCC (No date) *SACFOR ab*
Available from:

[sacfor.pdf \(jncc.gov.uk\)](#)

Use the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

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
- *Schizoporella japonica* – Orange ripple bryozoan

Please check for updates of high-risk species.

Footnote 2 - Peak bloom time is July – September

Footnote 3 - Please use the method as set out in Nelms et al (2017) to identify litter $\text{m}^{-1} \text{min}^{-1} \text{person}^{-1}$, which is Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the st 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, r classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Lit on the method:

NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment us from:

[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science da](#)

The indicator thresholds for litter are based on the methods in Van Loon et al (2020), which is guidance develop Directive (MSFD) 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 Coastl*. Available from:

[\(PDF\) A European Threshold Value and Assessment Method for Macro Litter on Coastlines \(researchgate.net\)](#)

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undance scale used for both littoral and sublittoral taxa from 1990 onwards [online].

s summarised below:

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sing citizen science data. *Science of The Total Environment* [online], 579. Available

[ita \(researchgate.net\)](https://www.researchgate.net)

ed within the Common Implementation Strategy for the Marine Strategy Framework

lines. EUR 30347 EN, Publications Office of the European Union, Luxembourg. [online]

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Condition Sheet: INTERTIDAL SEAGRASS Habitat Type						
Habitat Type(s)						
Intertidal sediment - Littoral seagrass						
Intertidal sediment - Littoral seagrass - on peat, clay or chalk						
Intertidal sediment - Artificial littoral seagrass						
Site name and location			On-site or off-site			
Limitations (if applicable)			Survey reference (if relating to a wider survey)			
Grid reference			Habitat parcel reference			
Habitat Description						
See the Biodiversity Metric 4.0 Technical Annex 2 and the below: JNCC littoral seagrass bed habitat description						
Habitat Attributes to Record						
The following information should be recorded within the condition assessment sheet: - Percentage 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; - Percentage cover of algal growths that could be attributed to nutrient enrichment; - Water Framework Directive (WFD) classification of overlying water; - Presence and density of non-natural structures and direct human impacts; - Assessment of litter; and - Evidence of visible rhizomes						
Condition Assessment Criteria						
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per criterion	Notes (such as justification)
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present, for example groynes, that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present, for example groynes, that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.		
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 1 for details.	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 1 for list.	One or more invasive non-native species 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 – GB Non-native Species Secretariat should be notified, see Footnote 1 for details.		

C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ² .		
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).		
E	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 3 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.	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 person per 100 m per hour. See Footnote 3 for details.		

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

Result Achieved

Suggested enhancement interventions to improve condition score

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 the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

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 2 - Peak bloom time is July – September.

Footnote 3 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below:

Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method:

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[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data \(researchgate.net\)](#)

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 (MSFD) 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 \(researchgate.net\)](#)

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Condition Sheet: INTERTIDAL SEAGRASS Habitat Type																				
Habitat Type(s)																				
Intertidal sediment - Littoral seagrass																				
Intertidal sediment - Littoral seagrass - on peat, clay or chalk																				
Intertidal sediment - Artificial littoral seagrass																				
Site name and location			On-site or off-site																	
Limitations (if applicable)			Survey reference (if relating to a wider survey)																	
Habitat Description																				
See the Biodiversity Metric 4.0 Technical Annex 2 and the below: JNCC littoral seagrass bed habitat description																				
Habitat Attributes to Record																				
The following information should be recorded within the condition assessment sheet: - Percentage 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; - Percentage cover of algal growths that could be attributed to nutrient enrichment; - Water Framework Directive (WFD) classification of overlying water; - Presence and density of non-natural structures and direct human impacts; - Assessment of litter; and - Evidence of visible rhizomes.										Habitat parcel reference										
										Grid reference										
Condition Assessment Criteria																				
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per criterion										Notes (such as justification)					
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present, for example groynes, that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present, for example groynes, that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.																
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 1 for details.	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 1 for list.	One or more invasive non-native species 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 – GB Non-native Species Secretariat should be notified, see Footnote 1 for details.																
C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ² .																
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).																
E	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 3 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.	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 person per 100 m per hour. See Footnote 3 for details.																
Total Score (out of a possible 15)																				
Condition Assessment Result					Result Achieved															
TOTAL SCORE 12 - 15 (75-100%) = GOOD CONDITION																				
TOTAL SCORE 8 - 11 (50-75%) = MODERATE CONDITION																				
TOTAL SCORE 5 - 7 (0-50%) = POOR CONDITION																				
Suggested enhancement interventions to improve condition score																				
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 the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

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 2 - Peak bloom time is July – September.

Footnote 3 - Please use the method as set out in Nelms et al (2017) to identify litter $\text{m}^{-1} \text{min}^{-1} \text{person}^{-1}$, which is summarised below:

Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method:

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:

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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 (MSFD) by the MSFD Technical Group on Marine Litter.

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Condition Sheet: INTERTIDAL SEDIMENT Habitat Type						
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						
Site name and location			On-site or off-site			
Limitations (if applicable)			Survey reference (if relating to a wider survey)			
Central grid reference of habitat			Habitat parcel reference			
Habitat Description						
See the Biodiversity Metric 4.0 Technical Annex 2 and the below: EUNIS littoral sediment description						
Habitat Attributes to Record						
The following information should be recorded within the condition assessment sheet: • 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; • Percentage cover of algal growths that could be attributed to nutrient enrichment; • Water Framework Directive (WFD) classification of overlying water; and • Description of zonation.						
Condition Assessment Criteria						
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per criterion	Notes (such as justification)
A	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.		
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 1 for details.	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 1 for details.	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 – GB Non-native Species Secretariat should be notified, see Footnote 1 for details.		

C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ² .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ² .		
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).		
E	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 3 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.	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 person per 100 m per hour. See Footnote 3 for details.		

Total Score (out of a possible 15)

Condition Assessment Result	Result Achieved
TOTAL SCORE 12-15 (75-100%) = GOOD CONDITION	
TOTAL SCORE 8-11 (50-75%) = MODERATE CONDITION	
TOTAL SCORE 5-7 (0-50%) = POOR CONDITION	

Suggested enhancement interventions to improve condition score

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 \(jncc.gov.uk\)](#)

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DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

- *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 - Peak bloom time is July – September.

Footnote 3 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below:

Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method:

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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 (MSFD) 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 \(researchgate.net\)](#)

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Condition Sheet: INTERTIDAL SEDIMENT Habitat Type														
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														
Site name and location					On-site or off-site									
Limitations (if applicable)					Survey reference (if relating to a wider survey)									
Habitat Description														
See the Biodiversity Metric 4.0 Technical Annex 2 and the below: EUNIS littoral sediment description Habitat Attributes to Record The following information should be recorded within the condition assessment sheet: • 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; • Percentage cover of algal growths that could be attributed to nutrient enrichment; • Water Framework Directive (WFD) classification of overlying water; and • Description of zonation.														
Condition Assessment Criteria														
Indicator		Good (3 points)		Moderate (2 points)		Poor (1 point)		Score per criterion						Notes (such as justification)
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.		Artificial structures present, for example groynes, that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.		Artificial structures present for example groynes, that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.								
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 1 for details.		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 1 for details.		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 – GB Non-native Species Secretariat should be notified, see Footnote 1 for details.								
C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ² .		Visual evidence of low to moderate levels of pollution. Elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ² .		Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ² .								
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).		Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).		Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).								
E	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 3 for details.		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 21 and 47 items of litter per person per 100 m per hour. See Footnote 3 for details.		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 person per 100 m per hour. See Footnote 3 for details.								
Total Score (out of a possible 15)														
Condition Assessment Result								Result Achieved						
TOTAL SCORE 12-15 (75-100%) = GOOD CONDITION														
TOTAL SCORE 8-11 (50-75%) = MODERATE CONDITION														

[illegible]

[Return to 'Selecting condition sheet' tab](#)

Condition Sheet: LAKE Habitat Type			
Habitat Type(s)			
Lakes - Aquifer fed naturally fluctuating waterbodies Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental lakes, or use Pond condition sheet for Ornamental ponds and pools] 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 (H3170) [Use this condition sheet for Temporary lakes, or use Pond condition sheet for Temporary ponds and pools]			
Habitat Description			
See Water Framework Directive: WFD Lakes typologies description For 'Aquifer fed naturally fluctuating waterbodies', 'Reservoirs' and 'Temporary lakes, ponds and pools' see UK Habitat Classification: 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 the metric (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 document (PDF) Annex I – Printable lake naturalness survey form to use in field (PDF) Annex II – Physical naturalness photographs (PDF) Annex-III - Hydrological naturalness photographs (PDF) Annex IV – Chemical naturalness photographs (PDF) Annex V – Plant functional group photographs (PDF) Annex VI – Further species recording (PDF)			
We encourage recording of data on lakes on the Freshwater Biological Association 'Habitat Naturalness Assessment' website portal: Contribute data – Discovering Priority Habitats in England (wpengine.com)			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Average 'Habitat Naturalness Assessment' Class	Condition Assessment Score	Score Achieved	
1 Natural	Good (3)		
2	Fairly good (2.5)		
3	Moderate (2)		
4	Fairly poor (1.5)		
5 Least natural	Poor (1)		
Suggested enhancement interventions to improve condition score			

[Return to 'Selecting condition sheet' tab](#)

Condition Sheet: LAKE Habitat Type												
Habitat Type(s)												
Lakes - Aquifer fed naturally fluctuating waterbodies												
Lakes - Ornamental lake or pond [Use this condition sheet for Ornamental lakes, or use Pond condition sheet for Ornamental ponds and pools]												
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 (H3170) [Use this condition sheet for Temporary lakes, or use Pond condition sheet for Temporary ponds and pools]												
Habitat Description												
See Water Framework Directive: WFD Lakes typologies description For 'Aquifer fed naturally fluctuating waterbodies', 'Reservoirs' and 'Temporary lakes, ponds and pools' see UK Habitat Classification: 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 the metric (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 document (PDF) Annex I – Printable lake naturalness survey form to use in field (PDF) Annex II – Physical naturalness photographs (PDF) Annex - III Hydrological naturalness photographs (PDF) Annex IV – Chemical naturalness photographs (PDF) Annex V – Plant functional group photographs (PDF) Annex VI – Further species recording (PDF)												
We encourage recording of data on lakes on the Freshwater Biological Association 'Habitat Naturalness Assessment' website portal: Contribute data – Discovering Priority Habitats in England (wpengine.com)												
Site name and location		On-site or off-site										
		Survey reference (if relating to a wider survey)										
		Habitat parcel reference										
Limitations (if applicable)												
		Grid reference										
Average 'Habitat Naturalness Assessment' Class	Condition Assessment Score	Score Achieved										
1 Natural	Good (3)											
2	Fairly good (2.5)											
3	Moderate (2)											
4	Fairly poor (1.5)											
5 Least natural	Poor (1)											
Suggested enhancement interventions to improve condition score												

[Return to 'Selecting condition sheet' tab](#)

Condition Sheet: LIMESTONE PAVEMENT Habitat Type		
UK Habitat Classification (UKHab) Habitat Type		
Sparsely vegetated land - Limestone pavement		
Habitat Description		
ukhab – UK Habitat Classification		
Site name and location		On-site or off-site
Limitations (if applicable)		Survey reference (if relating to a wider survey)
Grid reference		Habitat parcel reference
Condition Assessment Criteria		Criterion passed (Yes or No)
A	Cover of typical emergent pavement flora and clint-top vegetation accounts for at least 25% of total vegetation cover (the area excluding bare rock).	
B	Cover of invasive non-native species (as listed on Schedule 9 of WCA) ¹ is less than 1%. Non-native species in this instance include beech <i>Fagus sylvatica</i> and sycamore <i>Acer pseudoplatanus</i> ² .	
C	Species indicative of sub-optimal condition ³ make up less than 1% of vegetated ground cover.	
D	Less than 25% of live leaves (broadleaved plants), fronds (ferns) or shoots (dwarf shrubs) show signs of grazing or browsing.	
E	There is no evidence of damage to the pavement surface.	
Number of criteria passed		
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Criterion passed (Yes or No)
Passes 5 criteria	Good (3)	
Passes 4 criteria	Moderate (2)	
Passes 3 or fewer criteria	Poor (1)	
Suggested enhancement interventions to improve condition score		

Footnotes

Footnote 1 – Wildlife and Countryside Act 1981 (as amended).

Footnote 2 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of professional judgement.

Footnote 3 – Species indicative of sub-optimal condition for this habitat type include: perennial rye-grass *elatus*, crested dog's-tail *Cynosurus cristatus*, bramble *Rubus fruticosus* agg., creeping thistle *Cirsium arvense*, *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common ragwort *Jacobaea vulgaris*, common nettle *Urtica dioica* species. There may be additional relevant species local to the region and or site.

[illegible]



; varies across the habitat, split into parcels
of spread into adjacent habitat, using

s *Lolium perenne*, false oat-grass *Arrhenatherum*
rense, spear thistle *Cirsium vulgare*, curled dock
tle *Urtica dioica*, other pernicious perennial

Condition Sheet: LIMESTONE PAVEMENT Habitat Type														
UK Habitat Classification (UKHab) Habitat Type														
Sparsely vegetated land - Limestone pavement														
Habitat Description														
ukhab – UK Habitat Classification														
Site name and location				On-site or off-site										
				Survey reference (if relating to a wider survey)										
Limitations (if applicable)				Habitat parcel reference										
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
				Grid reference										
Condition Assessment Criteria				☐	☐	☐	☐	☐	☐	☐	☐	☐		
				Criterion passed (Yes or No)										Notes (such as justification)
A	Cover of typical emergent pavement flora and clint-top vegetation accounts for at least 25% of total vegetation cover (the area excluding bare rock).			☐	☐	☐	☐	☐	☐	☐	☐	☐		
B	Cover of invasive non-native species (as listed on Schedule 9 of WCA) ¹ is less than 1%. Non-native species in this instance include beech <i>Fagus sylvatica</i> and sycamore <i>Acer pseudoplatanus</i> ² .			☐	☐	☐	☐	☐	☐	☐	☐	☐		
C	Species indicative of sub-optimal condition ³ make up less than 1% of vegetated ground cover.			☐	☐	☐	☐	☐	☐	☐	☐	☐		
D	Less than 25% of live leaves (broadleaved plants), fronds (ferns) or shoots (dwarf shrubs) show signs of grazing or browsing.			☐	☐	☐	☐	☐	☐	☐	☐	☐		
E	There is no evidence of damage to the pavement surface.			☐	☐	☐	☐	☐	☐	☐	☐	☐		
Number of criteria passed				☐	☐	☐	☐	☐	☐	☐	☐	☐		
Condition Assessment Result (out of 5 criteria)		Condition Assessment Score		Score Achieved ×/✓										
Passes 5 criteria		Good (3)		☐	☐	☐	☐	☐	☐	☐	☐	☐		
Passes 4 criteria		Moderate (2)		☐	☐	☐	☐	☐	☐	☐	☐	☐		
Passes 3 or fewer criteria		Poor (1)		☐	☐	☐	☐	☐	☐	☐	☐	☐		
Suggested enhancement interventions to improve condition score														
Footnotes														

Footnote 1 – Wildlife and Countryside Act 1981 (as amended).

Footnote 2 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 3 – 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* agg., 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. There may be additional relevant species local to the region and or site.

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Condition Sheet: LINE OF TREES Habitat Type			
Habitat Type(s)			
Line of trees Line of trees – associated with bank or ditch Ecologically valuable line of trees Ecologically valuable line of trees – associated with bank or ditch			
Habitat Description			
See the Biodiversity Metric 4.0 User Guide Section 9. This assessment is based on the Hedgerow Survey Handbook¹. For further clarifications please refer to the Handbook. Where ancient and veteran trees are present within the line of trees, see Footnote 2 for standing advice.			
Site name and location			On-site or off-site
Limitations (if applicable)			Survey reference (if relating to a wider survey)
Grid reference			Habitat parcel reference
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	At least 70% of trees are native species.		
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.		

C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.		
D	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 human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice ² .		
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). 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.		
		Number of criteria passed	
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved x/✓	
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – DEFRA (2007) <i>Hedgerow Survey Handbook: A standard procedure for local surveys in the UK</i>. 2nd ed [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk). Footnote 2 – Where ancient and veteran trees are present, see gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)			

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Condition Sheet: LINE OF TREES Habitat Type												
Habitat Type(s)												
Line of trees Line of trees – associated with bank or ditch Ecologically valuable line of trees Ecologically valuable line of trees – associated with bank or ditch												
Habitat Description												
See the Biodiversity Metric 4.0 User Guide Section 9. This assessment is based on the Hedgerow Survey Handbook ¹ . For further clarifications please refer to the Handbook. Where ancient and veteran trees are present within the line of trees, see Footnote 2 for standing advice.												
Site name and location		On-site or off-site										
		Survey reference (if relating to a wider survey)										
Limitations (if applicable)		Habitat parcel reference										
		Grid reference										
Condition Assessment Criteria												Notes (such as justification)
		Criterion passed (Yes or No)										
A	At least 70% of trees are native species.											
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.											
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.											
D	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 human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice ² .											
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). 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.											
Number of criteria passed												
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved x/✓										
Passes 5 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)											
Passes 2 or fewer criteria	Poor (1)											
Suggested enhancement interventions to improve condition score												
Footnotes												
Footnote 1 – DEFRA (2007) <i>Hedgerow Survey Handbook: A standard procedure for local surveys in the UK</i> . 2nd ed [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk).												
Footnote 2 – Where ancient and veteran trees are present, see gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)												

and:
[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions)

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Condition Sheet: ORCHARD Habitat Type			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Traditional orchard			
Habitat Description			
ukhab – UK Habitat Classification			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	Presence of ancient ¹ and or veteran ¹ trees. Note - this criterion is essential for achieving Good condition.		
B	Presence of deadwood in or on trees, or on the ground: at least 20% of mature trees have deadwood associated with them. Some examples of deadwood are: standing, attached and fallen trees or limbs; dead stems; branches and branch stubs greater than 10 cm diameter; and internal cavities. The types and distribution of deadwood provide a range of habitats suitable to support a wide assemblage of saproxylic invertebrates.		
C	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 occupy less than 10% of ground cover.		
D	There is evidence of formative and or restorative pruning to maintain longevity of trees.		
E	At least 95% of the trees are free from damage caused by humans or animals, for example browsing, bark stripping or rubbing on non-adjusted ties.		
F	Grassland is not overgrazed, poaching is not evident around the trees, with no more than 10% of trees poached under the canopy.		
G	Species richness of the grassland is equivalent to a medium, high, or very high distinctiveness grassland.		
H	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of WCA ³) and species indicative of sub-optimal condition ⁴ make up less than 10% of ground cover.		
Essential criteria achieved (required for good condition - Yes or No)			
Number of criteria passed			
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved ×/✓	
Passes 6- 8 criteria, including essential criteria A and B.	Good (3)		
Passes 4 or 5 criteria; OR Passes 6 or 7 criteria but fails an essential criterion.	Moderate (2)		
Passes 3 or fewer criteria.	Poor (1)		
Suggested enhancement interventions to improve condition score			

Footnotes

Footnote 1 - See gov.uk standing advice on ancient and veteran trees. Available from:

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](#)

and:

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](#)

Footnote 2 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

Footnote 3 – Wildlife and Countryside Act 1981 (as amended).

Footnote 4 - 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* and common nettle *Urtica dioica*. There may be additional relevant species local to the region and or site.

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Condition Sheet: ORCHARD Habitat Type**UK Habitat Classification (UKHab) Habitat Type****Grassland - Traditional orchard****Habitat Description**[ukhab – UK Habitat Classification](#)

Site name and location		On-site or off-site				
		Survey reference (if relating to a wider survey)				
Limitations (if applicable)		Habitat parcel reference				
		Grid reference				
Condition Assessment Criteria						
		Criterion passed (Yes or No)				
A	Presence of ancient ¹ and or veteran ¹ trees. Note - this criterion is essential for achieving Good condition.					
B	Presence of deadwood in or on trees, or on the ground: at least 20% of mature trees have deadwood associated with them. Some examples of deadwood are: standing, attached and fallen trees or limbs; dead stems; branches and branch stubs greater than 10 cm diameter; and internal cavities. The types and distribution of deadwood provide a range of habitats suitable to support a wide assemblage of saproxylic invertebrates.					
C	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 occupy less than 10% of ground cover.					
D	There is evidence of formative and or restorative pruning to maintain longevity of trees.					

E	At least 95% of the trees are free from damage caused by humans or animals, for example browsing, bark stripping or rubbing on non-adjusted ties.				
F	Grassland is not overgrazed, poaching is not evident around the trees, with no more than 10% of trees poached under the canopy.				
G	Species richness of the grassland is equivalent to a medium, high, or very high distinctiveness grassland.				
H	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of WCA ³) and species indicative of sub-optimal condition ⁴ make up less than 10% of ground cover.				
Essential criteria achieved (required for Good condition - Yes or No)					
Number of criteria passed					
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved ×/✓			
Passes 6- 8 criteria, including essential criteria A and B.	Good (3)				
Passes 4 or 5 criteria; OR Passes 6 or 7 criteria but fails an essential criterion.	Moderate (2)				
Passes 3 or fewer criteria.	Poor (1)				
Suggested enhancement interventions to improve condition score					
Footnotes					

Footnote 1 - See gov.uk standing advice on ancient and veteran trees. Available from:
[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/publications/keepers-of-time-ancient-and-native-woodland-and-trees-policy-in-england)
and:
[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions)

Footnote 2 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using proportion of area occupied by the species.

Footnote 3 – Wildlife and Countryside Act 1981 (as amended).

Footnote 4 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle *Cirsium arvense*, broad-leaved dock *Rumex obtusifolius* and common nettle *Urtica dioica*. There may be additional relevant species

						Return to 'Selecting condition sheet' tab
						Notes (such as justification)

cross the habitat, split into parcels accordingly, applying a buffer of professional judgement.

nse, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, local to the region and or site.

Condition Sheet: POND Habitat Type**Habitat Type(s)****Lakes - Ponds (priority habitat)****Lakes - Ponds (non-priority habitat)****Lakes - Temporary lakes ponds and pools (H3170)** [Use this condition sheet for Temporary ponds and pools, use Lake lakes]**Lakes - Ornamental lake or pond** [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornam**Habitat Description**[ukhab – UK Habitat Classification](#)

For ponds (non-priority) – see the Biodiversity Metric 4.0 Technical Annex 2.

Site name and location		On-site or off-site
Limitations (if applicable)		Survey reference (if relating to a wider survey)
Grid reference		Habitat parcel reference
Condition Assessment Criteria		Criterion passed (Yes or No)

Core Criteria - applicable to all ponds (woodland¹ and non-woodland):

A	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.	
B	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	
C	Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.	
D	The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	

E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams ² , pumps or pipework.	
F	There is an absence of listed non-native plant and animal species ³ .	
G	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 - must be assessed for all non-woodland ponds:

H	Emergent, submerged or floating plants (excluding duckweed) ⁴ cover at least 50% of the pond area which is less than 3 m deep.	
I	The pond surface is no more than 50% shaded by adjacent trees and scrub.	

Number of criteria passed		
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Condition Assessment Result	Condition Assessment Score	Score Achieved ×/✓
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Results for woodland ponds which require assessment of 7 core criteria

Passes 7 criteria	Good (3)	
Passes 5 or 6 criteria	Moderate (2)	
Passes 4 or fewer criteria	Poor (1)	

Results for non-woodland ponds which require assessment of 9 criteria

Passes 9 criteria	Good (3)	
Passes 6 to 8 criteria	Moderate (2)	
Passes 5 or fewer criteria	Poor (1)	

Suggested enhancement interventions to improve condition score

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

Footnote 2 – This excludes natural dams such as those created by Eurasian beaver *Castor fiber*.

Footnote 3 - Any species included on the Water Framework Directive (WFD) UKTAG GB High Impact Species List should be included in the *Classification of aquatic alien species according to their level of impact* [online]. Available from: [UKTAG classification of alien species working paper v8.pdf \(wfduk.org\)](https://www.wfduk.org/)

- Frequently occurring non-native plant species include water fern *Azolla filiculoides*, Australian swamp stonecrop *Craspediophyllum aquaticum*, floating pennywort *Hydrocotyle ranunculoides* and Japanese knotweed *Reynoutria japonica*, *mantegazzianum* (on the bank).
- Frequently occurring non-native animals include signal crayfish *Pacifastacus leniusculus*, zebra mussels *Dreissena polymorpha*, *Dikerogammarus villosus*, demon shrimp *Dikerogammarus haemobaphes*, carp *Cyprinus carpio*.

Footnote 4 - If the pond is seasonal (as in, it dries out in most summers) then emergent species alone are likely to be found.

	Return to 'Selecting condition sheet' tab
Condition sheet for Temporary	
ental lakes]	
Notes (such as justification)	

d be absent: WFD UKTAG (2021)

ssula helmsii, parrot's feather
, giant hogweed *Heracleum*

lymorpha, killer shrimp

ound.

Condition Sheet: POND Habitat Type

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Habitat Type(s)												
Lakes - Ponds (priority habitat) Lakes - Ponds (non-priority habitat) Lakes - Temporary lakes ponds and pools (H3170) [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												
ukhab – UK Habitat Classification For ponds (non-priority) – see the Biodiversity Metric 4.0 Technical Annex 2.												
Site name and location			On-site or off-site									
			Survey reference (if relating to a wider survey)									
Limitations (if applicable)				Habitat parcel reference								
				Grid reference								
Condition Assessment Criteria												
				Criterion passed (Yes or No)								Notes (such as justification)
Core Criteria - applicable to all ponds (woodland ¹ and non-woodland):												
A	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.											
B	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.											
C	Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.											
D	The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.											
E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams ² , pumps or pipework.											
F	There is an absence of listed non-native plant and animal species ³ .											
G	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 - must be assessed for all non-woodland ponds:												
H	Emergent, submerged or floating plants (excluding duckweed) ⁴ cover at least 50% of the pond area which is less than 3 m deep.											
I	The pond surface is no more than 50% shaded by adjacent trees and scrub.											
Number of criteria passed												
Condition Assessment Result		Condition Assessment Score	Score Achieved x/✓									
Results for woodland ponds which require assessment of 7 core criteria												
Passes 7 criteria		Good (3)										
Passes 5 or 6 criteria		Moderate (2)										
Passes 4 or fewer criteria		Poor (1)										
Results for non-woodland ponds which require assessment of 9 criteria												
Passes 9 criteria		Good (3)										
Passes 6 to 8 criteria		Moderate (2)										
Passes 5 or fewer criteria		Poor (1)										
Suggested enhancement interventions to improve condition score												
Footnote 1 - A woodland pond will be surrounded on all sides by woodland habitat.												
Footnote 2 – This excludes natural dams such as those created by Eurasian beaver <i>Castor fiber</i> .												
Footnote 3 - Any species included on the Water Framework Directive (WFD) UKTAG GB High Impact Species List should be absent: WFD UKTAG (2021) <i>Classification of aquatic alien species according to their level of impact</i> [online]. Available from: UKTAG classification of alien species working paper v8.pdf (wfd.uk.org)												
• Frequently occurring non-native plant species include water fern <i>Azolla filiculoides</i> , Australian swamp stonecrop <i>Crassula helmsii</i> , parrot's feather <i>Myriophyllum aquaticum</i> , floating pennywort <i>Hydrocotyle ranunculoides</i> and Japanese knotweed <i>Reynoutria japonica</i> , giant hogweed <i>Heracleum mantegazzianum</i> (on the bank).												
• Frequently occurring non-native animals include signal crayfish <i>Pacifastacus leniusculus</i> , zebra mussels <i>Dreissena polymorpha</i> , killer shrimp <i>Dikerogammarus villosus</i> , demon shrimp <i>Dikerogammarus haemobaphes</i> , carp <i>Cyprinus carpio</i> .												
Footnote 4 - If the pond is seasonal (as in, it dries out in most summers) then emergent species alone are likely to be found.												

Condition Sheet: ROCKY SHORE Habitat Type						
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						
Site name and location			On-site or off-site			
Limitations (if applicable)			Survey reference (if relating to a wider survey)			
Grid reference			Habitat parcel reference			
Habitat Description						
EUNIS -Factsheet for Features of littoral rock (europa.eu)						
Habitat Attributes to Record						
The following information should be recorded within the condition assessment sheet: • Description of presence of typical communities and biotopes across the full vertical extent of the shore ¹ ; • Description of species diversity and community composition across the full vertical extent of the shore ¹ ; • Observations on coastal process functioning and any human physical modifications present; • Presence and abundance of non-native species; • Percentage 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; and • Water Framework Directive (WFD) classification of overlying water.						
Condition Assessment Criteria						
Indicator		Good (3 points)	Moderate (2 point)	Poor (1)	Score per indicator	Notes (such as justification)
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.		
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 2 for details.	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 2 for details.	One or more invasive non-native species 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 – GB Non-native Species Secretariat should be notified, see Footnote 2 for details.		
C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ³ .	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ³ .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ³ .		
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).		

E	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 4 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 4 for details.	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 person per 100 m per hour. See Footnote 4 for details.		
Total score (out of a possible 15)						
Condition Assessment Result					Result Achieved	
TOTAL SCORE 12-15 (75-100%) = GOOD CONDITION TOTAL SCORE 8-11 (50-75%) = MODERATE CONDITION TOTAL SCORE 5-7 (0-50%) = POOR CONDITION						
Suggested enhancement interventions to improve condition score						
Footnotes						
Footnote 1 – Distribution patterns of rocky shore communities are shaped by environmental stress gradients, in particular the vertical gradient from the low tide line up to terrestrial conditions at the top of the shore. This results in species being present in clearly conspicuous zones. Other environmental stresses, like exposure to wave action, also impact distribution patterns. This results in differing zonation patterns in either sheltered or wave-exposed shores, and in rocky shores often being temporally and spatially highly variable at a local scale. Surveys should therefore record all condition assessment criteria across the full vertical and horizontal extent of the shore. Reference: BURROWS, M.T., ET AL. (2014) <i>Marine Strategy Framework Directive Indicators for UK rocky Shores Part 1: Defining and validating the indicators</i>. JNCC Report, No. 522, SAMS/MBA/NOCS for JNCC, JNCC Peterborough. Available from: Marine Strategy Framework Directive Indicators for UK Rocky Shores - Part 1: Defining and validating the indicators (jncc.gov.uk) Footnote 2 - Details on abundances estimated using SACFOR scale available here: JNCC (No date) <i>SACFOR abundance scale used for both littoral and sublittoral taxa from 1990 onwards</i> [online]. Available from: sacfor.pdf (jncc.gov.uk) Use the non-native species list available here: Microsoft Word - UK Marine NIS priority list 2020 (nonnativespecies.org) DEFRA (2022) <i>UK Marine Non-Indigenous Species Priority List</i> (updated 2020) [online]. Available on: Marine Pathways Group » NISS (nonnativespecies.org) High-risk species indicative of sub-optimal condition at time of publication include (please check for updates of high-risk species): • <i>Didemnum vexillum</i> – Carpet sea squirt • <i>Hemigrapsus</i> spp. – Asian Shore crabs (<i>H. sanguineus</i>, <i>H. takanoi</i> or <i>H. penicillatus</i>) • <i>Corella eumyota</i> – Orange-tipped sea squirt • <i>Grateloupia turuturu</i> – Devil's tongue weed, gracie, red menace and red tide • <i>Schizoporella japonica</i> – Orange ripple bryozoan Footnote 3 - Peak bloom time is July – September. Footnote 4 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below: Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method: NELMS, S.E. ET AL. (2017) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data. <i>Science of The Total Environment</i> [online], 579. Available from: (PDF) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data (researchgate.net) 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 (MSFD) by the MSFD Technical Group on Marine Litter. VAN LOON, W. ET AL. (2020). <i>A European Threshold Value and Assessment Method for Macro Litter on Coastlines</i>. 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)						

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Condition Sheet: ROCKY SHORE Habitat Type																
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																
Site name and location			On-site or off-site													
Limitations (if applicable)			Survey reference (if relating to a wider survey)													
Habitat Description																
EUNIS -Factsheet for Features of littoral rock (europa.eu)																
Habitat Attributes to Record																
The following information should be recorded within the condition assessment sheet: • Description of presence of typical communities and biotopes across the full vertical extent of the shore ¹ ; • Description of species diversity and community composition across the full vertical extent of the shore ¹ ; • Observations on coastal process functioning and any human physical modifications present; • Presence and abundance of non-native species; • Percentage 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; and • Water Framework Directive (WFD) classification of overlying water.										Habitat parcel reference						
										Grid reference						
Condition Assessment Criteria																
Indicator		Good (3 points)	Moderate (2 point)	Poor (1)	Score per indicator										Notes (such as justification)	
A	Coastal processes	Coastal processes are functioning naturally. No evidence of human physical modifications which are clearly impacting the habitat.	Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting up to 25% of the habitat.	Artificial structures present, for example groynes that are impeding the natural movement of sediments or water, affecting more than 25% of the habitat.												
B	Presence and abundance of invasive non-native species	Not more than one invasive non-native species is 'Occasional' on the SACFOR scale or is occupying more than 1% of the habitat. No high-risk species indicative of sub-optimal condition present, see Footnote 2 for details.	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 2 for details.	One or more invasive non-native species 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 – GB Non-native Species Secretariat should be notified, see Footnote 2 for details.												
C	Water Quality	No visual evidence of pollution. There are no nuisance algal growths that are likely to be attributable to nutrient enrichment. Consider seasonality of survey timing ³ .	Visual evidence of low to moderate levels of pollution. elevated algal growth with increases in cover that may indicate nutrient enrichment. Consider seasonality of survey timing ³ .	Visual evidence of high algal growth that is indicative of nutrient enrichment. Signs of eutrophication that would impede bird feeding. Consider seasonality of survey timing ³ .												
D	Non-natural structures and direct human impacts	No evidence of impacts from direct human activities, or they occupy <1% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies 1-10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).	Evidence of impacts from direct human activities occupies >10% of the habitat area (for example, pontoons, moorings, boats, crab tiles, bait digging or anchoring scars).												
E	Litter (when examining a beach strandline, mean high water line or intertidal rocky shore)	Following the Marine Conservation Society (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 20 items per person per 100 m per hour. See Footnote 4 for details.	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 21 and 47 items of litter per person per 100 m per hour. See Footnote 4 for details.	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 person per 100 m per hour. See Footnote 4 for details.												
Total score (out of a possible 15)																
Condition Assessment Result					Result Achieved											
TOTAL SCORE 12-15 (75-100%) = GOOD CONDITION																
TOTAL SCORE 8-11 (50-75%) = MODERATE CONDITION																
TOTAL SCORE 5-7 (0-50%) = POOR CONDITION																
Suggested enhancement interventions to improve condition score																

Footnotes

Footnote 1 – Distribution patterns of rocky shore communities are shaped by environmental stress gradients, in particular the vertical gradient from the low tide line up to terrestrial conditions at the top of the shore. This results in species being present in clearly conspicuous zones. Other environmental stresses, like exposure to wave action, also impact distribution patterns. This results in differing zonation patterns in either sheltered or wave-exposed shores, and in rocky shores often being temporally and spatially highly variable at a local scale. Surveys should therefore record all condition assessment criteria across the full vertical and horizontal extent of the shore.

Reference: BURROWS, M.T., ET AL. (2014) *Marine Strategy Framework Directive Indicators for UK rocky Shores Part 1: Defining and validating the indicators*. JNCC Report, No. 522, SAMS/MBA/NOCS for JNCC, JNCC Peterborough. Available from:

[Marine Strategy Framework Directive Indicators for UK Rocky Shores - Part 1: Defining and validating the indicators \(jncc.gov.uk\)](#)

Footnote 2 - Details on abundances estimated using SACFOR scale 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 the non-native species list available here:

[Microsoft Word - UK Marine NIS priority list 2020 \(nonnativespecies.org\)](#)

DEFRA (2022) *UK Marine Non-Indigenous Species Priority List* (updated 2020) [online]. Available on:

[Marine Pathways Group » NNSS \(nonnativespecies.org\)](#)

High-risk species indicative of sub-optimal condition at time of publication include (please check for updates of high-risk species):

- *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

Footnote 3 - Peak bloom time is July – September.

Footnote 4 - Please use the method as set out in Nelms et al (2017) to identify litter m⁻¹ min⁻¹ person⁻¹, which is summarised below:

Collect litter along a linear transect parallel with the strandline, located between the back of the beach and the strandline. The transect should be 100 m long. Assign gathered items of litter to one of 101 item categories, and further classify them into 12 material groups (plastic, polystyrene, rubber, cloth, metal, medical, sanitary, faeces, paper, wood, glass, pottery or ceramic) using MCS classifications. Following this, record and sum all anthropogenic litter items and remove them from the beach. Litter identification guides may be useful, please see Nelms et al (2017) for more details on the method:

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:

[\(PDF\) Marine anthropogenic litter on British beaches: A 10-year nationwide assessment using citizen science data \(researchgate.net\)](#)

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 (MSFD) 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 \(researchgate.net\)](#)

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Condition Sheet: SCRUB Habitat Type			
UK Habitat Classification (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 - Dunes with sea buckthorn (H2160) Heathland and shrub - Willow scrub			
Habitat Description			
For Dunes with sea buckthorn see:	Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)		
For other scrub types see:	ukhab – UK Habitat Classification		
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species¹, with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i>, common juniper <i>Juniperus communis</i>, sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i>, which can be up to 100% cover).		
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ²) shrubs are all present.		
C	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴) and species indicative of sub-optimal condition ⁵ make up less than 5% of ground cover.		
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.		
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.		
		Number of criteria passed	
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/✓	

Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) <i>Hedgerow Survey Handbook: A standard procedure for local surveys in the UK</i> . 2nd ed. [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk).			
Footnote 2 - See gov.uk standing advice on ancient and veteran species. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)			
Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.			
Footnote 4 – Wildlife and Countryside Act 1981 (as amended).			
Footnote 5 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven <i>Alianthus altissima</i> , holm oak <i>Quercus ilex</i> , European turkey oak <i>Quercus cerris</i> , cherry laurel <i>Prunus laurocerasus</i> , snowberry <i>Symphoricarpos</i> spp., shallon <i>Gaultheria shallon</i> , American skunk cabbage <i>Lysichiton americanus</i> , buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> and hybrid bluebells <i>Hyacinthoides x massartiana</i> . There may be additional relevant species local to the region and or site.			

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Condition Sheet: SCRUB Habitat Type												
UK Habitat Classification (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 - Dunes with sea buckthorn (H2160)												
Heathland and shrub - Willow scrub												
Habitat Description												
For Dunes with sea buckthorn see:		Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)										
For other scrub types see:		ukhab – UK Habitat Classification										
Site name and location		On-site or off-site										
		Survey reference (if relating to a wider survey)										
Limitations (if applicable)		Habitat parcel reference										
		Grid reference										
Condition Assessment Criteria												Notes (such as justification)
		Criterion passed (Yes or No)										
A	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species ¹ , with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover).											
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ²) shrubs are all present.											
C	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴) and species indicative of sub-optimal condition ⁵ make up less than 5% of ground cover.											
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.											
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.											
Number of criteria passed												
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/✓										
Passes 5 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)											
Passes 2 or fewer criteria	Poor (1)											
Suggested enhancement interventions to improve condition score												
Footnotes												

Footnote 1 – Native woody species as defined and listed in the Hedgerow Survey Handbook: 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).

Footnote 2 - See gov.uk standing advice on ancient and veteran species. Available from:

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](http://publishing.service.gov.uk) and

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

Footnote 5 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven *Alnus altissima*, holm oak *Quercus ilex*, European turkey oak *Quercus cerris*, cherry laurel *Prunus laurocerasus*, snowberry *Symphoricarpos* spp., shallon *Gaultheria shallon*, American skunk cabbage *Lysichiton americanus*, buddleia *Buddleja* spp., cotoneaster *Cotoneaster* spp., Spanish bluebell *Hyacinthoides hispanica* and hybrid bluebells *Hyacinthoides x massartiana*. There may be additional relevant species local to the region and or site.

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Condition Sheet: SPARSELY VEGETATED LAND Habitat Type			
UK Habitat Classification (UKHab) Habitat Type(s)			
Sparsely vegetated land - Inland rock outcrop and scree habitats			
Sparsely vegetated land - Other inland rock and scree			
Habitat Description			
ukhab – UK Habitat Classification			
Site name and location			On-site or off-site
Limitations (if applicable)			Survey reference (if relating to a wider survey)
Grid reference			Habitat parcel reference
Condition Assessment Criteria			Criterion passed (Yes or No) Notes (such as justification)
A	The parcel is a good representation of the sparsely vegetated habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific habitat type. Indicator species for the specific sparsely vegetated habitat type listed by UKHab are consistently present.		
B	The cover of bracken <i>Pteridium aquilinum</i>, scrub and trees is less than 25%.		

C	There is an absence of invasive non-native plant species ¹ (as listed on Schedule 9 of WCA ²) and species indicative of sub-optimal condition ³ make up less than 5% of vegetated ground cover.		
D	Vegetation cover of vascular and non-vascular plants is between 5 and 50%.		
Number of criteria passed			
Condition Assessment Result (out of 4 criteria)	Condition Assessment Score	Score Achieved x/✓	
Passes 4 criteria	Good (3)		
Passes 3 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 2 – Wildlife and Countryside Act 1981 (as amended). Footnote 3 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, docks <i>Rumex</i> spp., brambles <i>Rubus</i> spp., common ragwort <i>Jacobaea vulgaris</i> and common nettle <i>Urtica dioica</i>. There may be additional relevant species local to the region and or site.			

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Condition Sheet: SPARSELY VEGETATED LAND Habitat Type						
UK Habitat Classification (UKHab) Habitat Type(s)						
Sparsely vegetated land - Inland rock outcrop and scree habitats						
Sparsely vegetated land - Other inland rock and scree						
Habitat Description						
ukhab – UK Habitat Classification						
Site name and location		On-site or off-site				
		Survey reference (if relating to a wider survey)				
Limitations (if applicable)		Habitat parcel reference				
		Grid reference				
Condition Assessment Criteria						
		Criterion passed (Yes or No)				

A	The parcel is a good representation of the sparsely vegetated habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific habitat type. Indicator species for the specific sparsely vegetated habitat type listed by UKHab are consistently present.							
B	The cover of bracken <i>Pteridium aquilinum</i> , scrub and trees is less than 25%.							
C	There is an absence of invasive non-native plant species ¹ (as listed on Schedule 9 of WCA ²) and species indicative of sub-optimal condition ³ make up less than 5% of vegetated ground cover.							
D	Vegetation cover of vascular and non-vascular plants is between 5 and 50%.							
Number of criteria passed								
Condition Assessment Result (out of 4 criteria)		Condition Assessment Score		Score Achieved x/✓				
Passes 4 criteria		Good (3)						
Passes 3 criteria		Moderate (2)						
Passes 2 or fewer criteria		Poor (1)						
Suggested enhancement interventions to improve condition score								

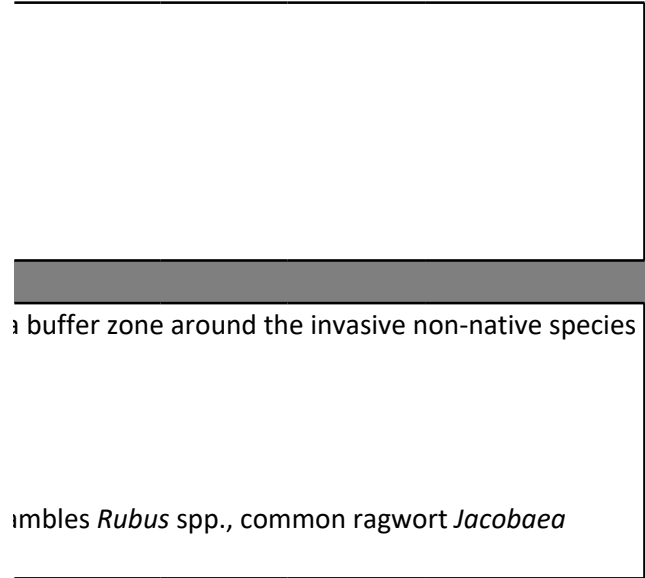
Footnotes

Footnote 1 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 2 – Wildlife and Countryside Act 1981 (as amended).

Footnote 3 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, docks *Rumex* spp., bra *vulgaris* and common nettle *Urtica dioica*. There may be additional relevant species local to the region and or site.

[illegible]



Condition Sheet: URBAN Habitat Type			
Habitat Type			
Where a parcel contains areas of higher distinctiveness habitats within it, then the area of higher distinctiveness habitat must be separated and recorded and assessed as such.			
Sparsely vegetated land - Ruderal/Ephemeral Sparsely vegetated land – Tall forbs Urban – Allotments Urban – Biodiverse green roof Urban - Bioswale Urban - Cemeteries and churchyards Urban - Facade-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 drainage system (SuDS) Urban - Vacant or derelict land Urban – Bare ground			
Habitat Description			
See Biodiversity Metric 4.0 User Guide for green roofs and UK Habitat Classification (UKHab) for other habitats:			UKHab – UK Habitat Classification
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all urban habitat types:			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No	No variety of height or structure
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes	
C	Invasive non-native plant species (listed on Schedule 9 of WCA ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	No	
Additional Criteria - must be assessed for Open mosaic habitat on previously developed land only:			
D1	The parcel shows spatial variation and forms a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.		
D2	The parcel contains pools of water such as permanent and ephemeral waterbodies.		
Additional Criteria - must be assessed for Bioswale and SuDS habitat types only:			

E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife ⁴ .		
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.		
Additional Criterion - must be assessed for Intensive green roofs only:			
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).		
Additional Criterion - must be assessed for Biodiverse green roofs only:			
G	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. Note – to achieve Good condition some additional habitat, such as sand piles, stones, logs etc are present.		
Essential criteria relevant for habitat type achieved (Yes or No)			
Number of criteria passed			
Condition Assessment Result		Condition Assessment Score	Score Achieved x/✓
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):			
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C.		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 criterion C.		Moderate (2)	
• Passes 0 or 1 of 3 core criteria.		Poor (1)	Poor
Results for Green roofs (requiring assessment of 4 criteria only - core criteria plus additional criterion specified for habitat type):			
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes additional criterion relevant to specific habitat type (F or G).		Good (3)	
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)	
• Passes 0 or 1 of 4 criteria.		Poor (1)	
Results for Open mosaic habitat on previously developed land, Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):			
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes all additional criteria relevant to specific habitat type (Group D or Group E)		Good (3)	

• Passes 3 or 4 of 5 criteria; OR • Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)		
• Passes 2 or fewer of 5 criteria.	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 – Wildlife and Countryside Act 1981 (as amended). Footnote 2 – Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNSS) website: Home » NNSS (nonnativespecies.org) and Natural England Access to Evidence page should also be checked for up-to-date information: Horizon-scanning for invasive non-native plants in Great Britain - NECR053 (naturalengland.org.uk) For criterion C – For green roof habitat types only – buddleia <i>Buddleja davidii</i> 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 been planted and seeded correctly in subsequent years. Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 4 – Use professional judgement. Sources of information about non-native species that are not detrimental to native wildlife can be found on the GBNNSS website: Alternative plants » NNSS (nonnativespecies.org)			

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Condition Sheet: URBAN Habitat Type															
Habitat Type															
Where a parcel contains areas of higher distinctiveness habitats within it, then the area of higher distinctiveness habitat must be separated and recorded and assessed as such.															
Sparsely vegetated land - Ruderal/Ephemeral															
Sparsely vegetated land – Tall forbs															
Urban – Allotments															
Urban – Biodiverse green roof															
Urban - Bioswale															
Urban - Cemeteries and churchyards															
Urban - Facade-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 drainage system (SuDS)															
Urban - Vacant or derelict land															
Urban – Bare ground															
Habitat Description															
See the Biodiversity Metric 4.0 User Guide for green roofs, and UK Habitat Classification (UKHab) for other habitats:												ukhab – UK Habitat Classification			
Site name and location				On-site or off-site											
				Survey reference (if relating to a wider survey)											
Limitations (if applicable)				Habitat parcel reference											
				Grid reference											
Condition Assessment Criteria															
				Criterion passed (Yes or No)										Notes (such as justification)	
Core Criteria - must be assessed for all urban habitat types:															
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.														
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.														
C	Invasive non-native plant species (listed on Schedule 9 of WCA ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).														
Additional Criteria - must be assessed for Open mosaic habitat on previously developed land only:															
D1	The parcel shows spatial variation and forms a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.														
D2	The parcel contains pools of water such as permanent and ephemeral waterbodies.														
Additional Criteria - must be assessed for Bioswale and SuDS habitat types only:															
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife ⁴ .														
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.														
Additional Criterion - must be assessed for Intensive green roofs only:															
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).														
Additional Criterion - must be assessed for Biodiverse green roofs only:															

G	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. Note – to achieve Good condition, some additional habitat, such as sand piles, stones, logs etc are present.											
Essential criteria relevant for habitat type achieved (Yes or No)												
Number of criteria passed												
Condition Assessment Result	Condition Assessment Score	Score Achieved ×/✓										
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):												
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C.	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 criterion C.	Moderate (2)											
• Passes 0 or 1 of 3 core criteria.	Poor (1)											
Results for Green roofs (requiring assessment of 4 criteria only - core criteria plus additional criterion specified for habitat type):												
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes additional criterion relevant to specific habitat type (F or G).	Good (3)											
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)											
• Passes 0 or 1 of 4 criteria.	Poor (1)											
Results for Open mosaic habitat on previously developed land, Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):												
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes all additional criteria relevant to specific habitat type (Group D or Group E)	Good (3)											
• Passes 3 or 4 of 5 criteria; OR • Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)											
• Passes 2 or fewer of 5 criteria.	Poor (1)											
Suggested enhancement interventions to improve condition score												
Footnotes												
Footnote 1 – Wildlife and Countryside Act 1981 (as amended).												
Footnote 2 – Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNSS) website: Home » NNSS (nonnativespecies.org) and Natural England Access to Evidence page should also be checked for up-to-date information: Horizon-scanning for invasive non-native plants in Great Britain - NECR053 (naturalengland.org.uk) For criterion C – For green roof habitat types only – buddleia <i>Buddleja davidii</i> 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 been planted and seeded correctly in subsequent years.												
Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat,using professional judgement.												
Footnote 4 – Use professional judgement. Sources of information about non-native species that are not detrimental to native wildlife can be found on the GBNNSS website: Alternative plants » NNSS (nonnativespecies.org)												

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Condition Sheet: WETLAND Habitat Type			
Habitat Type(s)			
Grassland - Floodplain wetland mosaic and CFGM - See the Biodiversity Metric 4.0 User Guide. 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			
For Oceanic valley mires - see EUNIS See the Biodiversity Metric 4.0 User Guide for Floodplain wetland mosaic and coastal and floodplain grazing marsh (CFGM). For CFGM also see the below: Coastal and floodplain grazing marsh UK BAP Priority Habitat description Priority Habitat Inventory (England) - data.gov.uk All other wetland habitats - see UK Habitat Classification (UKHab): UKHab			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all wetland habitat types:			
A	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. Note - this criterion is essential for achieving Good condition.		
B	The parcel is a good representation of the wetland habitat type it has been identified as, based on its UKHab description - as in, the appearance and composition of the vegetation closely matches the characteristics of the specific habitat type. Indicator species for the specific wetland habitat type ¹ listed by UKHab are consistently present.		
C	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.		
D	Cover of scrub and scattered trees are less than 10%.		
E	Cover of bare ground is less than 5%.		
F	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of WCA ³) and species indicative of sub-optimal condition ⁴ make up less than 5% of ground cover.		
Additional Criterion - must be assessed for Fen and Purple moor grass and rush pasture habitats only:			
G	No more than 25% of the habitat area has a continuous cover of litter (such as dead vegetation) preventing regeneration.		
Additional Criterion - must be assessed for Bog habitats only:			

H	Sphagnum moss <i>Sphagnum</i> spp. and cottongrasses <i>Eriophorum</i> spp. are at least Frequent ⁵ . Cover of ericaceous dwarf shrubs ⁶ is less than 75%.		
Additional Criterion - must be assessed for Reedbed habitats only:			
I	The reedbed has a diverse structure with between 60 and 80% reeds <i>Phragmites australis</i> . Other areas may include open water (at least 10%), species-rich fen and or wet woodland.		
Additional Criterion - must be assessed for Floodplain wetland mosaic and CFGM only:			
J	All ditches recorded within the habitat achieve Good condition as assessed using the Ditch condition sheet. Note – do not record ditches which are part of the floodplain wetland mosaic and CFGM within the Watercourse module.		
Essential criterion achieved (required for Good condition) Yes or No:			
Number of criteria passed			
Condition Assessment Result		Condition Assessment Score	Score Achieved x/✓
Results for habitats requiring assessment of 6 criteria (Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1)):			
•Passes 5 or 6 core criteria, including criterion A.		Good (3)	
•Passes 3 or 4 core criteria; OR •Passes 5 core criteria but fails criterion A.		Moderate (2)	
•Passes 2 or fewer core criteria.		Poor (1)	
Results for habitats requiring assessment of 7 criteria - core criteria and additional criterion specified for habitat type (all habitat types except Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1)):			
•Passes 5 or 6 core criteria including criterion A; AND •Passes additional criterion G, H, I or J (choose the one specified for the habitat type).		Good (3)	
•Passes 4 or 5 of 7 criteria; OR •Passes 6 of 7 criteria but fails criterion A or additional criterion G, H, I or J (choose the one specified for the habitat type).		Moderate (2)	
•Passes 3 or fewer criteria.		Poor (1)	
Suggested enhancement interventions to improve condition score			
Footnotes			
Footnote 1 - For fens, specify what fen type is present using base-status and trophic status - alkaline, neutral, or acidic; eutrophic, mesotrophic or oligotrophic. Footnote 2 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 3 – Wildlife and Countryside Act 1981 (as amended). Footnote 4 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, common nettle <i>Urtica dioica</i>, docks <i>Rumex</i> spp., and common ragwort <i>Jacobaea vulgaris</i>. There may be additional relevant species local to the region and or site. Footnote 5 – According to the relative abundance DAFOR scale – Dominant, Abundant, Frequent, Occasional or Rare. Footnote 6 - Ericaceous dwarf shrubs include: crowberry <i>Empetrum nigrum</i>, cowberry <i>Vaccinium vitis-idaea</i>, bilberry <i>Vaccinium myrtillus</i>, cranberry <i>Vaccinium oxycoccos</i>, heather <i>Calluna vulgaris</i>, cross-leaved heath <i>Erica tetralix</i>, and bell heather <i>Erica cinerea</i>. There may be additional relevant species local to the region and or site.			

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Condition Sheet: WETLAND Habitat Type													
Habitat Type(s)													
Grassland - Floodplain wetland mosaic and CFGM - See the Biodiversity Metric 4.0 User Guide. 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													
For Oceanic valley mires - see EUNIS See the Biodiversity Metric 4.0 User Guide for Floodplain wetland mosaic and coastal and floodplain grazing marsh (CFGM). For CFGM also see the below: Coastal and floodplain grazing marsh UK BAP Priority Habitat description Priority Habitat Inventory (England) - data.gov.uk All other wetland habitats - see UK Habitat Classification (UKHab): UKHab													
Site name and location		On-site or off-site											
		Survey reference (if relating to a wider survey)											
Limitations (if applicable)		Habitat parcel reference											
		Grid reference											
Condition Assessment Criteria													
		Criterion passed (Yes or No)											Notes (such as justification)
Core Criteria - must be assessed for all wetland habitat types :													
A	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. Note - this criterion is essential for achieving Good condition.												
B	The parcel is a good representation of the wetland habitat type it has been identified as, based on its UKHab description - as in, the appearance and composition of the vegetation closely matches the characteristics of the specific habitat type. Indicator species for the specific wetland habitat type ¹ listed by UKHab are consistently present.												
C	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.												
D	Cover of scrub and scattered trees are less than 10%.												
E	Cover of bare ground is less than 5%.												
F	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of WCA ³) and species indicative of sub-optimal condition ⁴ make up less than 5% of ground cover.												
Additional Criterion - must be assessed for Fen and Purple moor grass and rush pasture habitats only:													
G	No more than 25% of the habitat area has a continuous cover of litter (such as dead vegetation) preventing regeneration.												
Additional Criterion - must be assessed for Bog habitats only:													
H	Sphagnum moss <i>Sphagnum</i> spp. and cottongrasses <i>Eriophorum</i> spp. are at least Frequent ⁵ . Cover of ericaceous dwarf shrubs ⁶ is less than 75%.												
Additional Criterion - must be assessed for Reedbed habitats only:													

I	The reedbed has a diverse structure with between 60 and 80% reeds <i>Phragmites australis</i> . Other areas may include open water (at least 10%), species-rich fen and or wet woodland.												
Additional Criterion - must be assessed for Floodplain wetland mosaic and CFGM only:													
J	All ditches recorded within the habitat achieve Good condition as assessed using the Ditch condition sheet. Note – do not record ditches which are part of the Floodplain wetland mosaic and CFGM habitat within the Watercourse module.												
Essential criterion achieved (required for Good condition) Yes or No:													
Number of criteria passed													
Condition Assessment Result		Condition Assessment Score		Score Achieved ×/✓									
Results for habitats requiring assessment of 6 criteria (Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1)):													
•Passes 5 or 6 core criteria, including criterion A.		Good (3)											
•Passes 3 or 4 core criteria; OR •Passes 5 core criteria but fails criterion A.		Moderate (2)											
•Passes 2 or fewer core criteria.		Poor (1)											
Results for habitats requiring assessment of 7 criteria - core criteria and additional criterion specified for habitat type (all habitat types except Depression on peat substrates (H7150) and Oceanic valley mire [1] (D2.1)):													
•Passes 5 or 6 core criteria including criterion A; AND •Passes additional criterion G, H, I or J (choose the one specified for the habitat type).		Good (3)											
•Passes 4 or 5 of 7 criteria; OR •Passes 6 of 7 criteria but fails criterion A or additional criterion G, H, I or J (choose the one specified for the habitat type).		Moderate (2)											
•Passes 3 or fewer criteria.		Poor (1)											
Suggested enhancement interventions to improve condition score													
Footnotes													
Footnote 1 - For fens, specify what fen type is present using base-status and trophic status - alkaline, neutral, or acidic; eutrophic, mesotrophic or oligotrophic.													
Footnote 2 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.													
Footnote 3 – Wildlife and Countryside Act 1981 (as amended).													
Footnote 4 - Species indicative of sub-optimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , common nettle <i>Urtica dioica</i> , docks <i>Rumex</i> spp., and common ragwort <i>Jacobaea vulgaris</i> . There may be additional relevant species local to the region and or site.													
Footnote 5 – According to the relative abundance DAFOR scale – Dominant, Abundant, Frequent, Occasional or Rare.													
Footnote 6 - Ericaceous dwarf shrubs include: crowberry <i>Empetrum nigrum</i> , cowberry <i>Vaccinium vitis-idaea</i> , bilberry <i>Vaccinium myrtillus</i> , cranberry <i>Vaccinium oxycoccos</i> , heather <i>Calluna vulgaris</i> , cross-leaved heath <i>Erica tetralix</i> , and bell heather <i>Erica cinerea</i> . There may be additional relevant species local to the region and or site.													

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Condition Sheet: WOODLAND Habitat Type						
UK Habitat Classification (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						
ukhab – UK Habitat Classification This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here: Woodland Wildlife Toolkit (sylva.org.uk)						
IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.						
Site name and location			On-site or off-site			
Limitations (if applicable)			Survey reference (if relating to a wider survey)			
Grid reference			Habitat parcel reference			
Condition Assessment Criteria						
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
A	Age distribution of trees	Three age-classes ¹ present.	Two age-classes ¹ present.	One age-class ¹ present.	1	
B	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 ² .	Evidence of significant browsing pressure is present in 40% or more of whole woodland ² .	3	
C	Invasive plant species	No invasive species ³ present in woodland.	Rhododendron <i>Rhododendron ponticum</i> or cherry laurel <i>Prunus laurocerasus</i> not present, other invasive species ³ <10% cover.	Rhododendron or cherry laurel present, or other invasive species ³ >10% cover.	2	
D	Number of native tree species	Five or more native tree or shrub species ⁴ found across woodland parcel.	Three to four native tree or shrub species ⁴ found across woodland parcel.	Two or less native tree or shrub species ⁴ across woodland parcel.	2	
E	Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native ⁵ .	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native ⁵ .	<50% of canopy trees and <50% of understory shrubs are native ⁵ .	2	

F	Open space within woodland	10 - 20% of woodland has areas of temporary open space ⁶ . Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted ⁷ .	21 - 40% of woodland has areas of temporary open space ⁶ .	<10% or >40% of woodland has areas of temporary open space ⁶ . But if woodland <10ha has <10% temporary open space, please see Good category ⁷ .	1	
G	Woodland regeneration	All three classes present in woodland ⁸ ; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland ⁸ .	No classes or coppice regrowth present in woodland ⁸ .	1	
H	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback ⁹ .	11% to 25% mortality and/or crown dieback or low-risk pest or disease present ⁹ .	Greater than 25% tree mortality and or any high-risk pest or disease present ⁹ .	3	
I	Vegetation and ground flora	Recognisable NVC plant community ¹⁰ at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community ¹⁰ at ground layer present.	No recognisable woodland NVC plant community ¹⁰ at ground layer present.	1	
J	Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland ¹¹ .	Two storeys across all survey plots ¹¹ .	One or less storey across all survey plots ¹¹ .	1	
K	Veteran trees	Two or more veteran trees ¹² per hectare.	One veteran tree ¹² per hectare.	No veteran trees ¹² present in woodland.	1	
L	Amount of deadwood	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities ¹³ .	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .	1	
M	Woodland disturbance	No nutrient enrichment or damaged ground evident ¹⁴ .	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground ¹⁴ .	More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground ¹⁴ .	3	

Total Score (out of a possible 39) 22

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

Suggested enhancement interventions to improve condition score

Footnotes

Footnotes below refer to the EWBG woodland condition assessment methodology: EWBG (No date). *Assessing your Woodland's Condition* [online]. Available from:

[Woodland Wildlife Toolkit \(sylva.org.uk\)](http://sylva.org.uk)

When applying this condition sheet, good practice would be to use the methodology associated with the EWBG toolkit.

Footnote 1 - See EWBG method INDICATOR 1 for more information. If tree species is not a birch *Betula* sp., cherry *Prunus* sp. or *Sorbus* sp.: 0 – 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). For birch, cherry or *Sorbus* species; 0 - 20 years = Young; 21 - 60 years = Intermediate; >60 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. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly.

Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage *Lysichiton americanus*; Himalayan balsam *Impatiens glandulifera*; Japanese knotweed *Reynoutria japonica*; cherry laurel *Prunus laurocerasus*; shallon *Gaultheria shallon*; snowberry *Symphoricarpos albus*; variegated yellow archangel *Lamiastrum galeobdolon* subsp. *argentatum*; rhododendron *Rhododendron ponticum*; and tree-of-heaven *Ailanthus altissima*.

Footnote 4 - See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present.

Footnote 5 - See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs.

Footnote 6 - 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 (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees.

Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10ha.

Footnote 8 - 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, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

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

Footnote 10 - See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this.

Footnote 11 – This criterion looks 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. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information.

Footnote 12 - See EWBG method INDICATOR 12 for more information. See gov.uk standing advice on ancient and veteran trees. Available from:

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/614212/Keepers_of_time_-_ancient_and_native_woodland_and_trees_policy_in_England.pdf)

and:

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/614212/Ancient_woodland,_ancient_trees_and_veteran_trees_advice_for_making_planning_decisions.pdf)

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

Footnote 14 - See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter.

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H	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback ⁹ .	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present ⁹ .	Greater than 25% tree mortality and or any high-risk pest or disease present ⁹ .												
I	Vegetation and ground flora	Recognisable NVC plant community ¹⁰ at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community ¹⁰ at ground layer present.	No recognisable woodland NVC plant community ¹⁰ at ground layer present.												
J	Woodland vertical structure	Three or more storeys across all survey plots, or a complex woodland ¹¹ .	Two storeys across all survey plots ¹¹ .	One or less storey across all survey plots ¹¹ .												
K	Veteran trees	Two or more veteran trees ¹² per hectare.	One veteran tree ¹² per hectare.	No veteran trees ¹² present in woodland.												
L	Amount of deadwood	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities ¹³ .	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .												
M	Woodland disturbance	No nutrient enrichment or damaged ground evident ¹⁴ .	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground ¹⁴ .	More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground ¹⁴ .												
Total Score (out of a possible 39)																
Condition Assessment Result		Condition Assessment Score		Result Achieved												
Total score >32 (33 to 39)		Good (3)														
Total score 26 to 32		Moderate (2)														
Total score <26 (13 to 25)		Poor (1)														
Suggested enhancement interventions to improve condition score																
Footnotes																
Footnotes below refer to the EWBG woodland condition assessment methodology: EWBG (No date). <i>Assessing your Woodland's Condition</i> [online]. Available from: Woodland Wildlife Toolkit (sylva.org.uk) When applying this condition sheet, good practice would be to use the methodology associated with the EWBG toolkit. Footnote 1 - See EWBG method INDICATOR 1 for more information. If tree species is not a birch <i>Betula</i> sp., cherry <i>Prunus</i> sp. or <i>Sorbus</i> sp.: 0 - 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). For birch, cherry or <i>Sorbus</i> species; 0 - 20 years = Young; 21 - 60 years = Intermediate; >60 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. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly. Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage <i>Lysichiton americanus</i>; Himalayan balsam <i>Impatiens glandulifera</i>; Japanese knotweed <i>Reynoutria japonica</i>; cherry laurel <i>Prunus laurocerasus</i>; shallon <i>Gaultheria shallon</i>; snowberry <i>Symphoricarpos albus</i>; variegated yellow archangel <i>Lamium galeobdolon subsp. argentatum</i>; rhododendron <i>Rhododendron ponticum</i>; and tree-of-heaven <i>Ailanthus altissima</i>. Footnote 4 - See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present. Footnote 5 - See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs.																

Footnote 6 - 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 (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees.

Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10ha.

Footnote 8 - 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, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

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

Footnote 10 - See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this.

Footnote 11 – This criterion looks 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. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information.

Footnote 12 - See EWBG method INDICATOR 12 for more information. See gov.uk standing advice on ancient and veteran trees. Available from:

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/612222/ancient-woodland-and-trees-policy-in-england.pdf)

and:

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/612222/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions.pdf)

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

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Condition Sheet: WOOD-PASTURE AND PARKLAND Habitat Type			
UK Habitat Classification (UKHab) Habitat Type			
Woodland and forest - Wood-pasture and parkland			
Habitat Description			
ukhab – UK Habitat Classification			
Site name and location		On-site or off-site	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	Presence of ancient and or veteran trees ¹ . NB - this criterion is essential for achieving Good condition.		
B	Three different life-stages (for example young, mature or veteran) of open grown or pollarded trees ¹ are present, to ensure replacement and continuity of tree cohort, veteran characteristics and habitat.		
C	Native scrub is present with a variety of heights, widths, shapes and species compositions - as planted or naturally established individual plants, or clumps of trees or shrubs ² .		
D	Frequent ³ presence of decaying wood providing ecological niches – such as standing, attached and fallen deadwood (for example, dead stems, branches and branch stubs), trees with heart-rot, or hollowing in the trunk or major limbs. Decay features might be revealed by certain types of fungal fruiting bodies.		
E	There is no evidence of recent adverse impact on tree health by human activities, livestock, wild animals, pests or diseases (this excludes veteran features valuable for wildlife). For example, no evidence of poaching, damage from machinery use or storage, ground compaction, grazing damage to bark and roots, competition or shading from surrounding trees.		
F	Ground cover comprises open habitats, for example grassland or heathland, which are unimproved or semi-improved (medium distinctiveness or higher).		
G	Ground cover is subject to an appropriate management regime providing structural diversity for vertebrates and invertebrates, which is not being or threatened by infill of trees and scrub by natural establishment or forestry plantation, native or non-native. See Footnote 4 for details.		
H	There is an absence of invasive non-native plant species ⁵ (as listed on Schedule 9 of WCA ⁶), and species indicative of sub-optimal condition ⁷ make up less than 5% cover (this excludes ancient and veteran trees).		
Number of criteria passed			
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved ×/✓	
Passes 7 or 8 criteria and meets criterion A	Good (3)		

Passes 5 or 6 criteria OR Passes 7 criteria but fails criterion A	Moderate (2)	
Passes 4 or fewer criteria	Poor (1)	
Suggested enhancement interventions to improve condition score		
Footnotes		
Footnote 1 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk) 'Veteran' is not an age-class of tree, but in a habitat context refers to those trees having veteran characteristics, but which may be any age. Footnote 2 - The composition of native scrub provides opportunities for natural tree regeneration and tree protection without affecting the integrity of the habitat mosaic. Footnote 3 - According to the relative abundance DAFOR scale – Dominant, Abundant, Frequent, Occasional or Rare. Footnote 4 - Examples evidencing a management regime that creates open habitat ground cover with varied structure may include: grassland with varied sward height, or heathland with a range of age-classes of heather <i>Calluna vulgaris</i> or other dwarf shrubs. Footnote 5 - Assess this for each distinct habitat block. If the distribution of invasive non-native species varies across the habitat, define blocks accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Since wood-pasture and parkland is a mosaic habitat comprising a variety of plant structures and heights, careful consideration should be used when splitting a habitat into parcels; moreover, splitting a habitat into blocks does not change its habitat type. Footnote 6 - Wildlife and Countryside Act 1981 (as amended). Footnote 7 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven <i>Ailanthus altissima</i>, <i>Ailanthus</i> spp., holm oak <i>Quercus ilex</i>, European turkey oak <i>Quercus cerris</i>, cherry laurel <i>Prunus laurocerasus</i>, shallon <i>Gaultheria shallon</i>, American skunk cabbage <i>Lysichiton americanus</i>, snowberry <i>Symphoricarpos</i> spp., buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> and hybrid bluebells <i>Hyacinthoides x massartiana</i>. There may be additional relevant species local to the region and or site.		

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Passes 5 or 6 criteria OR Passes 7 criteria but fails criterion A	Moderate (2)											
Passes 4 or fewer criteria	Poor (1)											
Suggested enhancement interventions to improve condition score												
Footnotes												
Footnote 1 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk) 'Veteran' is not an age-class of tree, but in a habitat context refers to those trees having veteran characteristics, but which may be any age. Footnote 2 - The composition of native scrub provides opportunities for natural tree regeneration and tree protection without affecting the integrity of the habitat mosaic. Footnote 3 - According to the relative abundance DAFOR scale – Dominant, Abundant, Frequent, Occasional or Rare. Footnote 4 - Examples evidencing a management regime that creates open habitat ground cover with varied structure may include: grassland with varied sward height, or heathland with a range of age-classes of heather <i>Calluna vulgaris</i> or other dwarf shrubs. Footnote 5 - Assess this for each distinct habitat block. If the distribution of invasive non-native species varies across the habitat, define blocks accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Since wood-pasture and parkland is a mosaic habitat comprising a variety of plant structures and heights, careful consideration should be used when splitting a habitat into blocks; moreover, splitting a habitat into parcels does not change its habitat type. Footnote 6 - Wildlife and Countryside Act 1981 (as amended). Footnote 7 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven <i>Ailanthus altissima</i>, <i>Ailanthus</i> spp., holm oak <i>Quercus ilex</i>, European turkey oak <i>Quercus cerris</i>, cherry laurel <i>Prunus laurocerasus</i>, shallon <i>Gaultheria shallon</i>, American skunk cabbage <i>Lysichiton americanus</i>, snowberry <i>Symphoricarpos</i> spp., buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> and hybrid bluebells <i>Hyacinthoides x massartiana</i>. There may be additional relevant species local to the region and or site.												

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