

**Land at Thamesway
Northfleet
DA11 8HN**

**Biodiversity Net Gain Baseline
Assessment**

August 2025

FINAL

Produced by
*Ecology and Land
Management*
For and on behalf of
**Calumma Ecological
Services**



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Site Name: Land at Thamesway, Northfleet, Kent DA11 8HN

OS Grid Reference: TQ 6173 9365

County: Kent

Planning Authority: Gravesham Borough Council

Natural Character Area: North Kent Plain Natural Character Area

Client: Calumma Ecological Services

Proposed Disturbance: Installation of battery energy storage system

Report Request: Biodiversity Net Gain Baseline Assessment

Ecologist: Henriette Westergaard, MSc, BSc (Hons), MCIEEM, CMLI, CEnv with assistance from Dr Lee Brady PhD, BSc (Hons), MCIEEM and Oliver Westergaard BSc MRes QCIEEM

For and on behalf of Ecology & Land Management

Assessment Period: July/August 2025

Limitations: Protected species surveys are not part of this assessment.

Information within this report is based on information from the preliminary ecological appraisal and measurements provided by the client as indicated on site plan.

A landscape plan will be required to illustrate proposals.

1.0 INTRODUCTION

- 1.1 The Biodiversity baseline assessment has been produced in response to the proposed development at Thamesway, Northfleet, Kent DA11 8HN. Ecology & Land Management were commissioned by Calumma Ecological Services to carry out a Biodiversity Net Gain baseline assessment. See Figure 1 for site location.

Figure 1 – Site Location



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2.0 METHODOLOGY

Good Practice Principles

- 2.1 Biodiversity net gain has been defined as ‘development that leaves biodiversity in a better state than before, and an approach where developers work with local governments, wildlife groups, landowners and other stakeholders in order to support their priorities for nature conservation’ (Baker, 2016).

Good practice principles for development include:

- 2.2 Apply the 'Mitigation Hierarchy' (in line with CIEEM Guidelines for Ecological Impact Assessment (EcIA)) (CIEEM, 2018) and be 'additional' by achieving outcomes that exceed existing obligations.
- Avoid losing biodiversity which cannot be off-set elsewhere (e.g. irreplaceable habitats).
 - Address risk (e.g. difficulty of achieving habitat creation / enhancement for net gain).
 - Make a 'measurable' net gain contribution (e.g. calculated using an appropriate metric) and ensure that calculations consistent and transparent (i.e. limitations and assumptions are clearly identified).
 - Ensure that net gain design achieves the best outcome for biodiversity (this may require both quantitative and qualitative assessment) and create a net gain legacy for long-term benefits.

Desk Study and Habitat Baseline Assessment

- 2.3 A baseline habitat assessment was undertaken by Ecology & Land Management on 31st July 2025. It provides a baseline assessment of existing habitats. The baseline is based on site visits undertaken by a qualified ecologists.
- 2.4 The BNG assessment measures whether the proposed development will make a contribution to or have an impact on the wider ecosystem service of the site. The BNG assessment is based on data gathered from the baseline habitat assessment and landscape proposals provided by the client. An indicative habitat plan shows the existing site (Appendix I). The baseline assessment has created a biodiversity unit baseline assessing how distinctiveness of habitats retained or lost are replaced or restored by equally distinctive new habitats.

Condition Assessment

- 2.5 Habitat condition was assigned following guidance from the 'Technical Supplement' document (Natural England, 2021) which accompanies the Biodiversity Metric (Defra 07.25) Assessment criteria as well as the UK Habitat Classification User Manual v.2.0 (July, 2023).

Calculation of Biodiversity Units

- 2.6 Calculation of biodiversity units has been undertaken using the Defra 07.25 Biodiversity Beta Metric Calculator to calculate the biodiversity unit values. This assessment is a baseline calculation only. Once landscape proposals are known calculations for the site both before and after development can be prepared. This will determine the overall habitat biodiversity net loss or gain of the wider site. This will allow calculation of the change in biodiversity units and the overall percentage of gain/loss achieved. Metric calculations have been undertaken by Principal Ecologist, Henriette Westergaard, Msc, MCIEEM, CMLI, CEnv. Pre-development baseline habitat areas were calculated using measurements taken from measuring the baseline habitats as illustrated on the Indicative Habitat Plan (ELM, August 2025). Post-development habitats will be based on information provided by the client. A Proposals plan will be provided in Appendix IV. Habitat condition for created habitats was assigned taking a precautionary approach and with consideration of biotic and operational phase conditions (i.e. those which may limit the extent to which 'good' condition is likely to be reached).

Strategic Significance

- 2.7 The criteria within the Biodiversity Metric (Defra 07.25) was assessed by determining if habitat areas within the site occur within any strategic locations for biodiversity, form part of a designated site for nature conservation or are identified within local plans such as Ecological Networks (MAGIC).

Assumptions & Limitations

- 2.8 The baseline habitat areas have been calculated by cross referencing the Indicative Habitat Plan (Appendix I) with aerial imagery and information provided by the client. Post-development landscaping proposals will need to be provided by the client.

3.0 BASELINE HABITAT ASSESSMENT

- 3.1 The existing habitats are shown on the Indicative Habitat Plan. The biodiversity units for each habitat have been calculated and summaries are shown in tables below. The site area is provided as 0.9908ha (9908m²) in extent (confirmed by client). This is based on the redline drawing shown on the Proposed Layout Plan (SG-GRAVESEND-CIV-PLN-10) (provided by the client). The site level is variable due to made up ground and creation of bunds. The OS map lists a level of c. 5m AOD for the site. Soils are described as freely

draining slightly acid but base rich soils (Cranfield University) although this is likely to have been significantly modified due to previous industrial processes and adjacent road widening. The site is located southwest of Thamesway (A226), Northfleet c. 1.2km south of the River Thames. There are no statutory or non-statutory designations applicable to the site. However, the site is listed as Open Mosaic Habitat on Previously Developed Land priority habitat (Natural England, Draft). The nearest European designated site is Thames Estuary & Marshes RAMSAR/SPA c. 5km east. Statutory designated sites nearby include Swanscombe Peninsula SSSI c. 200m west, Swanscombe Skull Site NNR c. 1.8km west, Darenth Wood SSSI c. 3.6km southeast, West Thurrock Lagoon and Marshes c. 3.8km northwest. Nearby priority habitats include Open Mosaic on Previously Developed Land, Deciduous Woodland, Ancient semi-natural Woodland and No Main Habitat but Additional Habitat exists (Appendix III).

- 3.2 Habitats within the site boundary includes a mixture of successional habitats including dense scrub, other neutral grassland and young trees. There is a history of disturbance including soil stripping and movement . A native hedge forms the southwestern boundary of the site.
- 3.3 The entire polygon, which includes the red and blue line boundaries of the site but also extends to the road verges south side of Thamesway and northwest of site, was classified as Open Mosaic Habitat on Previously Developed Land (OMHOPDL) under a draft designation by Natural England in 2003 and 2008. However, this baseline habitat condition survey carried out in July 2025 of the entire polygon using both drone surveying and ground surveying with subsequent analysis of current vegetation structure indicate that the current vegetation within the entire polygon no longer meets the criteria for OMHOPDL. In particular, the habitat is tested against the following criteria:
 - 1) Open mosaic habitat > or = 0.25ha in size.
 - 2) Known history of disturbance, or evidence that soil has been removed or severely modified by previous use(s). Extraneous material/substrates such as industrial spoil.
 - 3) Site contains some vegetation. This will comprise early successional communities, consisting of stress tolerant species (e.g. indicative of low-nutrient status or drought). Early successional communities are composed of one of the following a)

annuals, b) mosses/liverworts, c) lichens, d) ruderals, e) inundation species, f) open grassland, g) flower-rich grassland, h) heathland.

- 4) Contains unvegetated, loose bare substrate and pools may be present.
- 5) The site shows spatial variation within 0.25h, forming a mosaic of > or = to 1 early successional communities (see criterion 3 a) to h), above, plus bare substrate.

3.4 The habitat has been assessed as only meeting criteria 1, 2 and 3. There is a lack of loose bare substrate. The worn modified grassland along the edge of the Thamesway has resulted from roadside disturbance and is not representative of the disturbance or habitat regeneration typically seen in OMHOPDL habitats. It lacks the characteristic ecological features of OMHOPDL for the following reasons:

- i) Human-Induced Disturbance: The bare patches within the worn grassland are primarily the result of localized disturbance, such as vehicle traffic, footfall, or maintenance activities related to the road expansion. These disturbances are less dynamic compared to the continuous, ecologically-driven disturbance characteristic of OMHOPDL habitats, such as former industrial sites or railway embankments, where ecological regeneration and pioneer species can establish.
- ii) Lack of Pioneer Vegetation: Although there are bare patches within the grassland, they do not exhibit the same diversity of colonizing species typically found in OMHOPDL habitats. In true OMHOPDL habitats, the bare ground is typically colonized by a wide range of pioneer species (grasses, mosses, herbs), contributing to an ecologically rich mosaic. In contrast, the worn grassland area along the Thamesway shows limited colonization and is predominantly dominated by modified grassland species rather than the diverse, early-successional species required for OMHOPDL.

3.5 In summary, the site has undergone significant successional changes, transitioning towards extensive areas of dense bramble and mixed scrub and early successional woodland. The current habitat represents secondary succession comprising self-seeded trees and the formation of scrub confirming a habitat shift from early-successional species to a more structured and competitive vegetation community. This succession from open, disturbed land towards more closed-canopy habitats is consistent with ecological principles of land regeneration.

- 3.6 OMHOPDL habitats are primarily characterized by open ground, bare substrate, and early-successional vegetation, which provide opportunities for colonization by pioneer species. However, the current vegetation composition at this site indicates that it has moved beyond the early-successional stage typical of OMHOPDL.
- 3.7 Scrub species now account for approximately 79% of the vegetation cover, particularly bramble, blackthorn, and other woody species. This increase in scrub cover indicates a shift from the open, disturbed structure to a more scrub-dominated habitat. Self-seeded trees such as ash, cherry, and blackthorn are now well-established across the site. These trees are gradually forming canopies in certain areas indicating that the site is moving towards a young woodland stage, a transition indicating ecological succession. The habitat no longer maintains the mosaic pattern of open ground and colonizing vegetation that is characteristic of OMHOPDL. Instead, there is a greater proportion of shrub and tree cover, with the site increasingly dominated by scrub and young trees.
- 3.8 Based on the principles of ecological succession and changes in vegetation structure, it appears that the site is no longer representative of OMHOPDL. However, this reclassification is subject to review by Natural England and may be challenged by other experts, particularly if further monitoring or different interpretations of the site's successional process are undertaken. The ecological changes observed provide a strong case for reclassification, but the final determination should consider ongoing succession and consultation with relevant organisations.
- 3.9 The following baseline has been calculated assessing each of the current habitats of bramble scrub, blackthorn scrub, mixed scrub, other neutral grassland and hedgerow.

4.0 BIODIVERSITY IMPACT CALCULATIONS

Baseline Habitats and Hedge features

- 4.1 The baseline habitat assessment is summarised as follows:

Bramble scrub (h3d)

- 4.2 The majority of the site is dominated by bramble scrub (*Rubus fruticosus*), which has spread extensively across the site. This is a medium distinctiveness habitat and the condition is set as 'N/A'.

Blackthorn scrub (h3a)

- 4.3 A small clump of blackthorn (*Prunus spinosa*) scrub has self-seeded on the plateau. This includes a multi-stemmed blackthorn trees. This is a medium distinctiveness habitat and the condition has been assessed as 'poor'.

Mixed scrub (h3h)

- 4.4 Areas of mixed scrub comprising mainly cherry (*Prunus avium*), blackthorn (*Prunus spinosa*) and apple (*Malus sp.*) have developed across the site. This is a medium distinctiveness habitat and the condition has been assessment as in 'moderate' due to failing criteria B and E.

Other neutral grassland (gc35)

- 4.5 An area of other neutral grassland has formed on the plateau at the western end of the site. The grassland is dominated by false oat grass (*Arrhenatherum elatius*) with a number of forbs. In addition, there are strips of other neutral grassland along the northern boundary immediately south of the road side verge. However, these strips appear to be outside the redline boundary and have therefore not been included in the metric calculations. The grassland is unmanaged with a species richness is < 10m². Species observed are listed in Table 1 below. This is a medium distinctiveness habitat and the condition is assessed as 'moderate' due to failing criteria B and F (See Appendix V).

Table 1 – Grassland species observed

Scientific Name	Common Name
<i>Arctium sp.</i>	Burdock
<i>Arrhenatherum elatius</i>	False oat grass
<i>Artemisia vulgaris</i>	Mugwort
<i>Ballota nigra</i>	Black horehound
<i>Cirsium arvense</i>	Creeping thistle
<i>Clematis vitalba</i>	Traveller's joy
<i>Convolvulus sp.</i>	Bindweed
<i>Daucus carota</i>	Wild carrot
<i>Dipsacus fullonum</i>	Teasel
<i>Elymus repens</i>	Couch
<i>Foeniculum vulgare</i>	Fennel
<i>Heracleum sphondylium</i>	Hogweed

Scientific Name	Common Name
<i>Hypericum perforatum</i>	St John's wort
<i>Lactuca sp.</i>	Lettuce
<i>Lamium purpureum</i>	Red dead nettle
<i>Lepidium latifolium</i>	Perennial Pepperweed
<i>Lotus corniculatus</i>	Birds foot trefoil
<i>Origanum majorana</i>	Majorum
<i>Potentilla reptans</i>	Creeping cinquefoil
<i>Pricris echioides</i>	Bristly oxtongue
<i>Rumex obtusifolius</i>	Broadleaved dock
<i>Urtica dioica</i>	Common nettle
<i>Verbascum sp.</i>	Mullein
<i>Vicia sativa</i>	Common vetch

Native Hedge non-priority (h2a)

- 4.6 A native hedge is located within the redline boundary along the southwest boundary. The hedge comprises mainly hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), rose (*Rosa sp.*) and ivy (*Hedera helix*). This is a low distinctiveness habitat and the condition is assessed as 'moderate' due to failing 2 criteria in 1 functional group.
- 4.7 The following tables show existing and proposed habitats and linear features and their individual biodiversity unit scores.

Table 2 - UKHab Definitions of existing habitats and linear features

Description	UKHab
Mixed scrub	h2h
Blackthorn scrub	h2a
Bramble scrub	h2d
Other neutral grassland	g3c5
Tall ruderal	u1(81)
Native hedgerow, non-priority	h2a

- 4.8 A summary of existing biodiversity units is presented in tables 3, 4 and 5 below.

Table 3 – Summary of Baseline Habitat Biodiversity Units

All habitats within boundary	Area (ha) Existing	Condition	Area (ha) Retained	Biodiversity Units Current	Biodiversity Units Lost
Mixed scrub	0.1164	Moderate	Not known	1.07	Not known
Blackthorn scrub	0.0037	Poor	Not known	0.02	Not known
Bramble scrub	0.6674	N/A	Not known	3.07	Not known
Other neutral grassland	0.1841	Moderate	Not known	1.69	Not known
Tall ruderal	0.0192	Poor		0.04	
Total	0.9908*			5.90	Not known

Table 4 – Summary of Baseline Hedge Features Biodiversity Units

Linear Feature	Length (km) Existing	Length (km) Lost	Biodiversity Units Current	Biodiversity Units Lost
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Native (non-priority)	0.193	Not known	0.08	Not known
Total	0.193		0.08	Not known

4.9 There are no watercourses associated with the site.

Table 5– Summary of Baseline Watercourse Features Biodiversity Units

Watercourse Feature	Length (km) Existing	Length (km) Lost	Biodiversity Units Current	Biodiversity Units Lost
n/a	-	-	-	-
Total	-		-	-

Compensation - Habitats

4.10 The proposed soft landscape is not currently available.

Table 6 – Summary of On-site Habitat Compensation Biodiversity Units

Compensation Habitat	Area/ha	Distinctiveness Score	Target Condition Score	Biodiversity Units achieved
n/a	-	-	-	-
Total	-		Total	-

Compensation – Linear Features

4.11 Detailed landscape proposals are awaited.

Table 7 – Summary of Compensation Linear Biodiversity Units

Compensation Linear	Km	Distinctiveness Score	Target Condition Score	Biodiversity Units
-	-	-	-	-
Total	-		Total	-

5.0 CONCLUSION

- 5.1 Biodiversity off setting will be required to inform the habitat retention, restoration, creation and/or enhancement proposals for the proposed site.
- 5.2 The development is valued at 5.90 habitats baseline unit, 0.08 baseline hedge units and 0 baseline watercourse units. A summary of results is provided in Table 8.
- 5.3 Landscape proposals will be required to calculate biodiversity net gain and/or loss. A net gain is required to meet the national planning policy (Ministry of Housing, Communities & Local Government, 2021) and the environment Bill 2021.

- 5.4 Where a biodiversity unit deficit is present compensation biodiversity units can be secured through either on-site or off-site habitat proposals, purchase of biodiversity units from a third party or a combination of these. Options include:
- 1 Securing off-site biodiversity units from a habitat bank or landowner delivering approved BNG habitats elsewhere. The site must be registered on Natural England's Biodiversity Gain Site Register. This enables development to proceed without major on-site changes. The biodiversity units must be sourced, and prices vary by habitat type and location.
 - 2 Purchase statutory biodiversity credits from Natural England. Only available if no local off-site units can be sourced. Requires evidence that all other options have been exhausted. This is a legally valid fallback but usually the most expensive option; not favoured by planning authorities.
- 5.5 Where a deficit in biodiversity units is confirmed the LPA may not validate the application until a 10% net gain has been secured. The biodiversity uplift required may be secured by planning condition or conservation covenant.

Table 8 – Headline Baseline Results

Thamesway, Northfleet

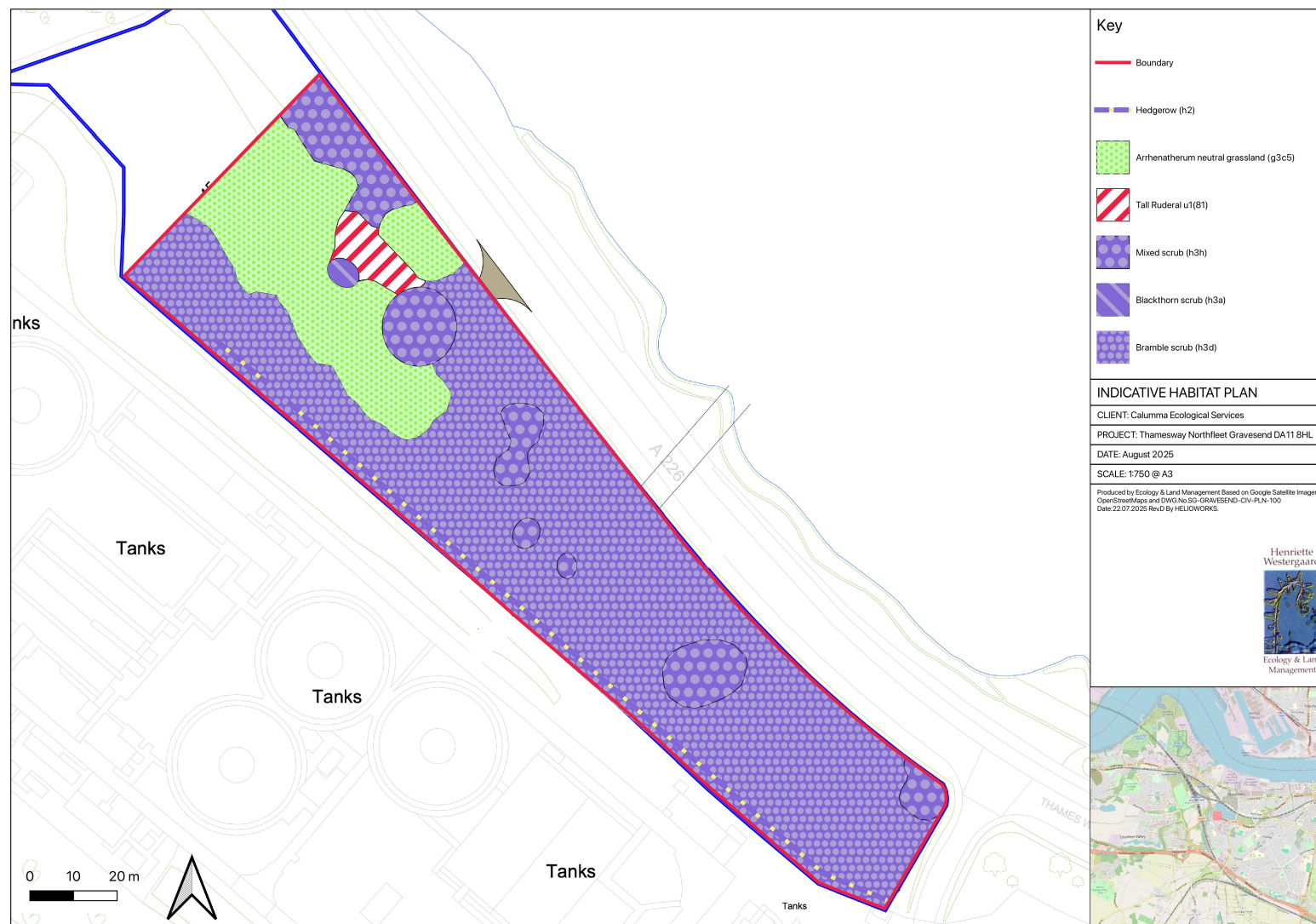
Headline Results

Scroll down for final results

Return to results menu

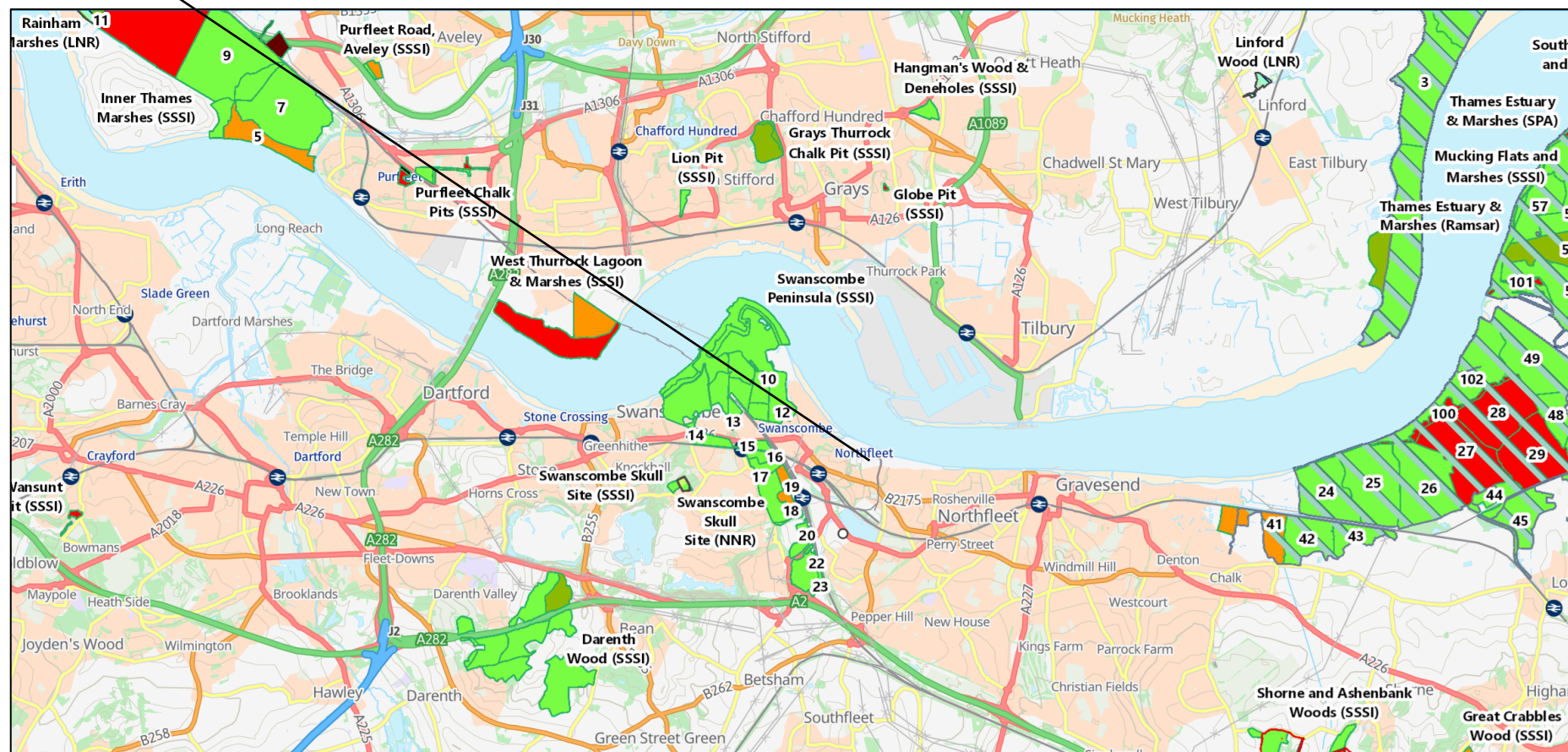
On-site baseline	Area habitat units	5.90		
	Hedgerow units	0.08		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site net change (units & percentage)	Area habitat units	-5.90	-100.00%	On-site net gain is less than target set
	Hedgerow units	-0.08	-100.00%	On-site net gain is less than target set
	Watercourse units	0.00	0.00%	
Off-site baseline	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	Area habitat units	0.00	0.00%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-5.90		
	Hedgerow units	-0.08		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	Area habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-5.90		
	Hedgerow units	-0.08		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-100.00%	Total net gain achieved is less than target set	
	Hedgerow units	-100.00%	Total net gain achieved is less than target set	
	Watercourse units	0.00%		
Trading rules satisfied?	No - Check Trading Summaries			

APPENDIX I – INDICATIVE BASELINE HABITAT PLAN



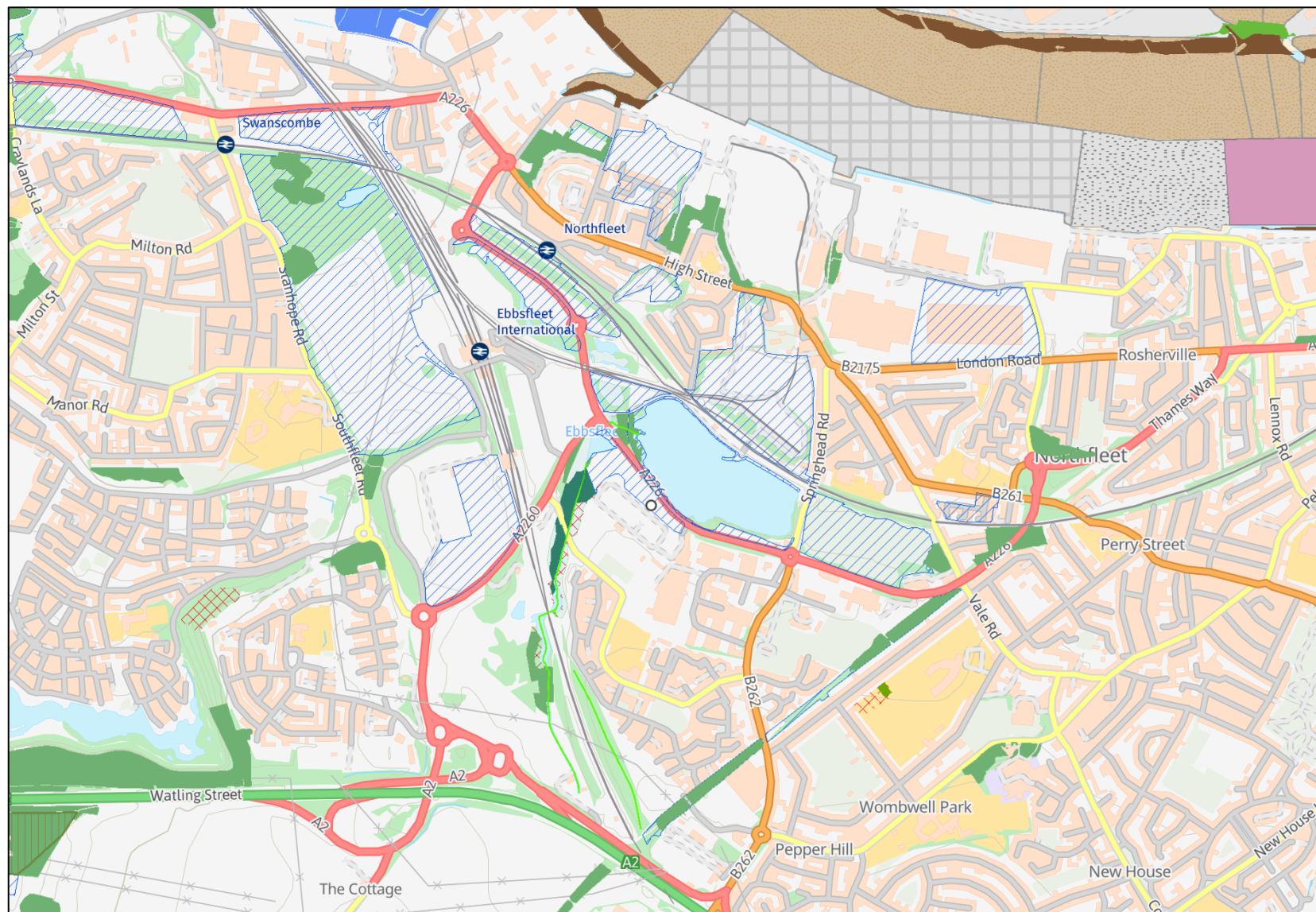
APPENDIX II – STATUTORY DESIGNATIONS

Site location



Source: Magic.gov.uk online August 2025

APPENDIX III – PRIORITY HABITATS



Source: Magic.gov.uk online August 2025

Produced by Ecology & Land Management, August 2025

APPENDIX IV – PROPOSED LANDSCAPE PLANS

Detailed landscape proposals awaited.

APPENDIX V – BIODIVERSITY METRIC CONDITION ASSESSMENT CRITERIA

Mixed Scrub (h3h)

Condition Sheet: SCRUB Habitat Type			
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		
On-site or off-site, site name and location	Thamesway	Survey date and Surveyor name	31.07.25 H. Westergaard
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference	TQ 6173 9365	Habitat parcel reference	h3h (mixed scrub)
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). ¹ - At least 80% of scrub is native, - There are at least three native woody species ² , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	y	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	n	Young specimens only
C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	y	none observed
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	y	good edge habitat
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	n	still too small
Number of criteria passed			3
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)	Moderate	
Passes 2 or fewer criteria	Poor (1)		

Blackthorn Scrub (h3a)

Condition Sheet: SCRUB Habitat Type			
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	
On-site or off-site, site name and location	Thamesway	Survey date and Surveyor name	31.07.25 H. Westergaard
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference	TQ 6173 9365	Habitat parcel reference	h3a (blackthorn scrub)
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). ¹ - At least 80% of scrub is native, - There are at least three native woody species ² , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	n	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	n	Young specimens only
C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	y	none observed
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	y	good edge habitat
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	n	still too small
Number of criteria passed			2
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)	Poor	

Other neutral grassland (g3c5)

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)			
On-site or off-site, site name and location	Thamesway	Survey date and Surveyor name	31.07.25 H. Westergaard
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference	TQ 6173 9365	Habitat parcel reference	g3c5
Habitat Description			
ukhab – UK Habitat Classification			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). ¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	y	Representative of MG1
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.	n	Even sward
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens. ²	y	
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%.	y	
E	Combined cover of species indicative of suboptimal 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. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.	y	
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	n	
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		No	
Number of criteria passed		4	
Condition Assessment Result	Condition Assessment Score	Score Achieved	
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)	Moderate	
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)		

Tall Ruderal (u1(80))

Condition Sheet: URBAN Habitat Type			
On-site or off-site, site name and location	Thamesway	Survey date and Surveyor name	31.07.25 H. Westergaard
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference	TQ 6173 9365	Habitat parcel reference	u1(80) (tall ruderal)
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.	n	Nettle >80%
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.	n	Dense nettle bed
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).	y	None observed
Additional Criterion - must be assessed for Open mosaic habitat on previously developed land only:			
D	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS: - At least four early successional communities (a) to (i); Communities: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.		
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	

Native hedgerow (h2a)

Condition sheet: HEDGEROW Habitat Types					
ukhab – UK Habitat Classification					
On-site or off-site, site name and location	Thamesway		Survey date and Surveyor name	31.07.25 H. Westergaard	
Limitations (if applicable)			Survey reference (if relating to a wider survey)		
Grid reference	TQ 6173 9365		Habitat parcel reference	h2a	
Condition Assessment Details A series of ten attributes, representing key physical characteristics are used for this assessment. 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. 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. Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.					
Hedgerow favourable condition attributes					
Attributes and functional groupings (A, B, C, D and E)	Criteria - the minimum requirements for 'favourable condition'	Criteria 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).	yes		
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).	yes		
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).	yes		
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).	yes		

Condition sheet: HEDGEROW Habitat Types					
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.	No	Southwest is maintained grounds
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.	No	Significant nettle and bramble
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 .	yes	
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 (for example, excessive hedgerow cutting).	yes	
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 Statutory Biodiversity 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 (for example, 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 (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1			
Score achieved:		2			

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