

The Small Sites Metric (Biodiversity Metric 4.0)

User Guide

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Defra Group



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Acknowledgements

The Small Sites Metric builds on a series of previous versions of the biodiversity metric which have been published by Natural England with the input from the Environment Agency and the Forestry Commission, including authors and contributors cited in previous versions.

All versions of the biodiversity metric build on the biodiversity loss/gain framework developed by Jo Treweek and Bill Butcher^{1,2}, incorporating habitat condition and a new concept of distinctiveness scores, which was subsequently adopted by Defra and Natural England for their biodiversity offset pilots and metric³.

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¹ Treweek J. et al. (2009) [Scoping study for the design and use of biodiversity offsets in an English Context](#).

² Treweek J., Butcher B., and Temple H. (2010) [Biodiversity offsets: possible methods for measuring biodiversity losses and gains for use in the UK](#). CIEEM In Practice.

³ Defra (2012) *Biodiversity Offsetting Pilots. Technical paper: the metric for the biodiversity offsetting pilot in England* [online]. Defra, London.) [Biodiversity Offsetting Pilots. Technical paper: the metric for the biodiversity offsetting pilot in England](#)

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1. Document guidance

1.1. Purpose of this guidance

- 1.1.1. This document provides guidance to support a competent person using the Small Sites Metric Calculation Tool. Instructions on how to input data into the Small Sites Metric Calculation Tool are provided in [Section 8](#).
- 1.1.2. The technical habitat data and calculation methodology of the Small Sites Metric are embedded within the Small Sites Metric Calculation Tool and supporting documents (hereafter referred to as 'the SSM').
- 1.1.3. It may not be appropriate to use the SSM on all sites defined as 'small sites', as the SSM can only be used in a specific set of circumstances, outlined in [Section 1.7](#).
- 1.1.4. If your project does not meet these circumstances, you must use the main Biodiversity Metric 4.0 Calculation Tool (hereafter referred to as the 'main metric').
- 1.1.5. This document does not provide guidance on the main metric, guidance for which can be found in [The Biodiversity Metric 4.0 User Guide](#). Whilst the guidance presented within this document is specific to the SSM, most of the rules and principles underpinning the two metrics are the same.

1.2. What the SSM measures

- 1.2.1. The SSM uses habitat as a proxy to describe biodiversity. These habitats are converted into measurable 'biodiversity units'. These biodiversity units are the 'currency' of the SSM.
- 1.2.2. Biodiversity units are calculated using the size of a parcel of habitat and its quality. The SSM uses area (measured in m²) and length (measured in m).
- 1.2.3. To assess the quality of a habitat, the SSM scores habitats of different types according to their relative biodiversity value. Habitats that are scarce or declining typically score highly relative to habitats that are more common and widespread. The SSM also takes account of the condition of a habitat.
- 1.2.4. Where new habitat is created, or existing habitat is enhanced, the difficulty and associated risks of doing so are taken into account by the SSM.

1.3. Competency requirements

- 1.3.1. A competent person must carry out the habitat survey and complete the SSM calculation. A competent person completing the SSM is known as the SSM 'user'.
- 1.3.2. Users of the SSM should be competent in identifying:
 - habitats present on site (pre-development)
 - management requirements for habitats to be created or enhanced within the landscape design (post-development)
- 1.3.3. Competency is aligned with the British Standard '[Process for designing and implementing biodiversity net gain: BS 8683:2021](#)'.
- 1.3.4. The developer is responsible for selecting the competent person for completing the SSM. The competent person does not need to be an ecologist for the SSM. The Local Planning Authority does not need to verify the competent person.
- 1.3.5. A competent person is someone who can demonstrate they have acquired through training, qualifications or experience, or a combination of these, the knowledge and skills enabling that person to perform specified tasks in completing and reviewing metric calculations.
- 1.3.6. Where required, evidence should be provided and be signposted within the 'user comments' section of the SSM.

1.4. SSM documents

- 1.4.1. The following tools and supporting documents are available:
 - Small Sites Metric Calculation Tool
 - Small Sites Metric User Guide (this document)
 - the GIS Import Tool, template and guidance
- 1.4.2. SSM users are encouraged to follow industry [best practice principles](#) (CIRIA, CIEEM and IEMA) and [BS 8683:2021](#).

1.5. Use of the SSM

- 1.5.1. The SSM can be used to inform and improve planning, design, land management and decision-making. It is a simple assessment tool and only considers direct impacts on habitats within the footprint of a development, estate or project. The SSM can:
- assess or audit the biodiversity unit value of an area of land
 - calculate the losses and gains in biodiversity unit value resulting from changes or actions which affect biodiversity
 - compare different proposals for a site, allowing more objective assessments of potential biodiversity impacts and benefits
 - be used to calculate biodiversity units
- 1.5.2. The SSM can be used throughout all stages of a project, from site selection through to detailed design (see [section 1.6](#)). The earlier it is applied, the greater the opportunity to design for net gain and wider ecological benefits.
- 1.5.3. The SSM can only be applied to on-site land, defined as all land within the boundary of a project. In a planning context, this usually means within the red line boundary of a planning application.
- 1.5.4. The SSM outputs the total percentage net change relevant to the on-site baseline and uses biodiversity units as the unit measure. If a site has a baseline of zero biodiversity units then the SSM will not provide a percentage output and advice on biodiversity unit requirements should be sought from the determining body.

1.6. Key Process Steps

1.6.1. The key steps that must be followed to make practical use of the SSM are outlined below.

Step 1: Project planning

- identify the site where the SSM will be used

Step 2: Data collection

- collect habitat and other data from the site (see [data requirements](#))
- undertake a desk study to determine strategic significance
- identify the planned actions or interventions that will change habitats, such as development or changes to land management

1.6.2. To measure the biodiversity value of habitats, define the site boundary and then divide this into appropriate parcels dependent on habitat type and size or length.

Step 3: Calculation

- identify SSM modules to use
- input data into the SSM to generate biodiversity unit scores

1.6.3. The SSM operates by applying a score to habitat type, size or length, and measures of quality. These scores are multiplied together to produce a number that represents the biodiversity unit value of each habitat. The initial calculation represents the 'baseline' or 'pre-intervention' value of the site in biodiversity units.

1.6.4. The calculation is then repeated for the post-development scenario. This calculation should include any interventions to generate biodiversity units by retaining or enhancing existing habitats and by creating new habitats. This gives the user a post-development value for the site in biodiversity units. At this point, because the SSM is measuring predicted changes rather than existing habitats, additional factors to account for the 'risk' associated with creating or enhancing habitats are considered in the calculation (see difficulty and time to target condition in [Table 2-1](#)).

Step 4: Informing design and decisions

- use results to improve design, communicate gains and losses, and inform planning decisions
- if there are changes to planned interventions run the calculator for pre- and post-change scenarios
- return to steps 1, 2 or 3 if required

- 1.6.5. The value of the baseline pre-intervention biodiversity units is deducted from the predicted post-development unit score to give a net change unit value. If your project has explicit biodiversity unit requirements, then the SSM can be used to calculate the numbers of units your design is predicted to deliver. The design can be revised to improve the number of biodiversity units obtained, with the SSM re-run for each iteration of the design.

1.7. Restrictions on the use of the SSM

- 1.7.1. It may not be appropriate to use the SSM on all sites defined as 'small sites'. Developers should note that the following criteria need to be met to use the small sites metric calculation tool:
- for residential development:
 - fewer than 10 residential units on a site area (no more than 9 units) less than 1 hectare
 - when the number of residential units is not known, the site area is less than 0.5 hectares
 - for non-residential development:
 - where the floor space to be created is less than 1,000 square meters, or where the site area is less than 1 hectare
- 1.7.2. The SSM cannot be used:
- where habitats not available in the SSM are present (a list of those habitats available are included at Appendix 1).
 - only sites containing habitats set out in the SSM can use the SSM
 - any site containing any additional habitat (including riparian zones where relevant) not included in the SSM must use the main metric
 - where priority habitats are within the development site
 - this does not include the presence of some hedgerows and arable field margins – these are medium distinctiveness habitats
 - where any statutory protected sites habitats are within the development site
 - where European protected species are present on the development site
 - where any off-site interventions are required
- 1.7.3. If statutory protected sites or priority habitats are located within 500m of the development site boundary, consideration should be given to contacting an ecologist and using the main metric. A section of the SSM must be filled in to reflect this and a warning flag will appear where this is the case.
- 1.7.4. Even where the above criteria are met, the SSM does not have to be used. The main metric can always be used in its place.

2. Key terms and definitions

2.1.1. [Table 2-1](#) sets out key terms that are used within the SSM.

Table 2-1 Explanation of SSM terms

Terms	Explanation
Area habitat	Habitats recorded in the SSM in area (m ²).
Biodiversity unit	Biodiversity units are a proxy to describe biodiversity. There are three types of biodiversity units: area units, hedgerow units and watercourse units. These are calculated in separate 'modules' of the SSM.
Condition	<p>A measure of the habitat against its ecological optimum state. Condition is a way of measuring variation in the quality of patches of the same habitat type.</p> <p>Habitat conditions are fixed at baseline in the SSM to simplify the process and cannot be amended. Some post-intervention habitats have limited choices for targeted condition.</p>
Difficulty	A measure which represents the uncertainty in the effectiveness of management techniques used to restore or create habitat.
Distinctiveness	<p>A measure based on the type of habitat and its distinguishing features. This includes consideration of species richness, rarity, the extent to which the habitat is protected by designations and the degree to which a habitat supports species rarely found in other habitats.</p> <p>In the SSM, distinctiveness scores of very low, low and medium are the only options. Sites which include high or very high distinctiveness habitats must be assessed using the main metric.</p>
Habitat size	The size of the habitat parcel to be retained, enhanced, created, or lost. Size is measured in m ² , or in metres for linear features.

Terms	Explanation
Habitat type	<p>A habitat classification, primarily derived from one of these sources:</p> <ul style="list-style-type: none"> • UK Habitat Classification • European Nature Information System habitat types • Water Framework Directive (WFD) Lake typologies
Hedges and lines of trees	<p>Habitats recorded in the SSM in length (m). Nine hedgerow and lines of tree habitat types are available.</p>
Parcel	<p>A linked area of habitat of the same distinctiveness, condition and strategic significance.</p>
Project timeframe	<p>The timeframe over which the SSM calculates gains and losses for specific habitat interventions.</p>
Reviewer	<p>A person reviewing the SSM. Usually from a determining body or planning authority.</p>
Size	<p>The size of the habitat parcel to be retained, enhanced, created, or lost. Size is measured in metres squared for area features, or in metres for linear features. The SSM accepts size measurements to any number of decimal places.</p>
Strategic significance	<p>Describes the local significance of the habitat based on its location and type.</p>
Time to target condition	<p>The average time taken between starting creation or enhancement of habitats and that habitat reaching its target condition and distinctiveness.</p>
User	<p>The competent person completing the SSM.</p>
Watercourses	<p>Habitats recorded in the SSM in length (m). Three watercourse habitats are available.</p>

3. SSM rules and principles

3.1. SSM rules

- 3.1.1. The rules set out in [Table 3-1](#) must be followed in applying the SSM.
- 3.1.2. If these rules are not followed, then a project cannot claim to have achieved a gain in biodiversity.

Table 3-1 SSM rules

Rule number	Rule detail
Rule 1	The competency requirements set out in Section 1.3 must be complied with.
Rule 2	<p>Biodiversity unit outputs are unique to the SSM. The results of other metrics, including previous versions of the SSM and the main metric, are not comparable to those of the SSM.</p> <p>The three types of biodiversity units generated by the SSM (area, hedgerow and watercourse) are unique. They cannot be summed, traded, or converted between types.</p>
Rule 3	The trading rules of the SSM, presented in section 3.2 , must be followed.
Rule 4	The SSM cannot be used on sites which contain irreplaceable, high or very high distinctiveness habitats.

3.2. SSM trading rules (Rule 3)

- 3.2.1. Rule 3 is automatically applied by the SSM and sets minimum habitat creation and enhancement requirements to compensate for specific habitat losses, up to the point of no net loss.
- 3.2.2. Very high and high distinctiveness habitats are not included within the SSM. Sites including such habitats must use the main metric. Therefore, [Table 3-2](#) only shows trading rules for very low, low and medium distinctiveness habitats.

Table 3-2 Trading rules (Rule 3)

Baseline habitat distinctiveness	Trading rules
Medium	Must be replaced with medium distinctiveness habitat from same broad habitat type.
Low	Must be replaced with any habitat from the same or higher distinctiveness band
Very low	Trading rules do not apply.

Watercourses

- 3.2.3. Any changes to enhance or restore rivers or streams must be calculated through the main metric.
- 3.2.4. Creation of new culverts is not suitable compensation for the loss of any watercourse.

3.3. SSM principles

- 3.3.1. The principles set out in [Table 3-3](#) should inform the use of the SSM.

Table 3-3 SSM metric principles

Principle number	Principle detail
Principle 1	The SSM does not change existing biodiversity protections, statutory obligations, or policy requirements. The use of the SSM does not override the ecological mitigation hierarchy and other requirements.
Principle 2	The SSM should be used conjunction with existing good practice guidelines and professional codes of conduct.
Principle 3	This SSM is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.
Principle 4	Biodiversity units are a proxy for biodiversity and should be treated as relative values.

Principle number	Principle detail
Principle 5	The SSM is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.
Principle 6	Habitat interventions need to be realistic and deliverable within a relevant project timeframe.
Principle 7	Created and enhanced habitats should seek, where practical and reasonable, to deliver strategically important outcomes for nature conservation.
Principle 8	<p>The SSM does not enforce a minimum habitat size ratio for losses and compensation. However, proposals should consider:</p> <ul style="list-style-type: none"> • maintaining habitat extent (supporting bigger, better and more joined up ecological networks) • ensuring that proposed or retained habitat parcels are of sufficient size for ecological function.

4. Data requirements

4.1. Completing the SSM

4.1.1. Data required for completing the SSM are set out in [Table 4-1](#). A competent person should collect this through appropriate desk studies and site visits.

Table 4-1 Data inputs required for area, hedgerow, and watercourse biodiversity units

Calculation input	Area	Hedgerow	Watercourses
Habitat type	Required	Required	Required
Size	Square metres	Metres	Metres
Distinctiveness	Not required	Not required	Not required
Condition and target condition	Required for some created and enhanced habitats only	Required for some created and enhanced habitats only	Required for some created and enhanced habitats only
Strategic significance	Required	Required	Required
Area retained, enhanced or lost	Required	Not required	Not required
Length retained, enhanced, or lost	Not required	Required	Required

Evidencing data and decision making

4.1.2. Justification for decisions should be provided and signposted within the 'User comments' column of the SSM.

5. Assessing habitat quality

5.1. Quality components

5.1.1. There are three habitat quality components of the SSM:

- [Distinctiveness](#)
- [Condition](#)
- [Strategic significance](#)

5.2. Distinctiveness

5.2.1. Distinctiveness is a measure based on the type of habitat and its distinguishing features. The SSM automatically assigns the distinctiveness band based on habitat type. SSM distinctiveness categories and scores are outlined in [Table 5-1](#), below.

Table 5-1 SSM distinctiveness categories and scores

Distinctiveness category	Distinctiveness score applied in the SSM
Medium	4
Low	2
Very low (hedgerow habitats)	1
Very low (area and river habitats)	0

5.3. Condition

5.3.1. Habitat condition is a measure of the state of a habitat, often linked to past and present management and land use. Condition is a means of measuring variation in the quality of habitat parcels of the same habitat type and is automatically assigned by the SSM at the baseline stage.

5.3.2. Some habitats allow the user to assign the condition post-intervention from a set number of options. As a default, the lowest available condition should be chosen, unless evidence can be provided as to how the higher condition will be achieved. A summary of this evidence should be provided in the user comments column.

5.3.3. SSM condition categories and scores are outlined in [Table 5-2](#).

Table 5-2 SSM condition categories and scores

Condition category	Score applied in the SSM
Good	3
Moderate	2
Poor	1
N/A – Agricultural	1
N/A – Other	0

5.4. Strategic significance

5.4.1. Strategic significance is the local significance of the habitat based on its location and habitat type. Users should assign a strategic significance category ([Table 5-3](#)) for each individual habitat parcel both at baseline and at post-intervention. Users should use published plans, strategies or policies which are relevant to the habitat's location.

Table 5-3 SSM strategic significance categories, scores and description

Strategic significance category	Score applied in the SSM	Description
High strategic significance	1.15	Where the location has been identified within a local plan, strategy or policy as being ecologically important for the specific habitat type or where that habitat has been identified as being locally ecologically important.
Low strategic significance	1	If the habitat is not included in local plans, strategy or policy.

5.4.2. In the majority of circumstances, habitats recorded in the SSM should be considered to be of low strategic significance.

5.4.3. Those of high strategic significance should be readily identifiable in relevant documentation. Any habitat not listed in the documentation outlined in

section [5.4.5](#) and [5.4.6](#) and available in the SSM should be considered to be of low strategic significance.

5.4.4. Users should split the habitat parcel and apply the scores accordingly when a habitat parcel is intersected by:

- a boundary between two areas of different strategic significance
- a consenting body or planning authority boundary

5.4.5. If published, the relevant strategy is the Local Nature Recovery Strategy (LNRS). If an LNRS has not published, the relevant consenting body or planning authority may specify alternative plans, policies or strategies to use.

5.4.6. Alternative plans, policies or strategies must specify suitable locations for habitat enhancements and might, for example, be:

- Local Plans and Neighbourhood Plans
- Local Planning Authority [Local Ecological Networks](#)
- Tree Strategies
- Area of Outstanding Natural Beauty Management Plans
- Biodiversity Action Plans
- Species and protected sites conservation strategies
- Woodland strategies
- Green Infrastructure Strategies
- River Basin Management Plans
- Catchment Plans and Catchment Planning Systems
- [Shoreline management plans](#)
- Estuary Strategies

6. Habitat interventions

6.1. Interventions

6.1.1. The SSM contains different habitat intervention scenarios:

- [Habitat retention](#)
- [Habitat creation](#)
- [Habitat enhancement](#)

6.1.2. For each intervention, the user must determine the correct scenario using the descriptions set out in the sections below. Where it is not clear which scenario best fits the intervention, the user should use the habitat creation intervention.

6.1.3. The SSM only allows for creation or enhancement of habitat types found in the SSM. The main metric includes additional, better quality, habitats that can be created or enhanced. The main metric must only be used by someone that is competent in its usage.

6.2. Habitat retention

6.2.1. Habitat retention is where a baseline habitat is retained with no loss or change and there is no action to enhance or remove the habitat.

6.2.2. If a habitat is retained, the area can be input into the SSM as retained meaning the baseline value is carried over to the post development score.

6.2.3. Habitats subject to retention may still require intervention to maintain baseline condition. Where the condition of retained habitat cannot be maintained, the main metric must be used.

6.3. Habitat creation

6.3.1. Habitat creation is where one habitat type is replaced by another habitat type and includes:

- a loss of baseline habitat and its replacement with another
- a change in broad habitat type (for example, a change from a grassland to a woodland)

- 6.3.2. Within the SSM, only certain habitats can be created. These are listed in Appendix 1. If a habitat proposed for creation is not included within the SSM, the main metric should be used.
- 6.3.3. For some habitats, multiple condition options can be selected from for created habitats. The user should select the most appropriate category based on the proposed design. If the user is not able to make this decision, the lowest available condition should be used or specialist advice from an ecologist should be sought.

6.4. Habitat enhancement

- 6.4.1. Within the SSM, only certain habitats can be enhanced. These habitats can be enhanced in two ways:
- **enhancing distinctiveness** – when enhancements improve the type of the habitat itself, for example a mown modified grassland is enhanced to become other neutral grassland by changing its management
 - **enhancing habitat condition** – when enhancements increase the quality of the habitat but do not change the habitat type
- 6.4.2. Appendix 1 sets out habitats which can be enhanced, and the habitats they can be enhanced to within the SSM. If a habitat that is targeted for enhancement to is not included within the SSM, the main metric should be used.

7. Understanding the results

- 7.1.1. The results show the change in biodiversity value for the area habitats, hedges and lines of trees, and watercourses separately.
- 7.1.2. The results are set out to show the:
- change in area or length of the habitat
 - change in units for each habitat type
 - percentage change in units for each different habitat type
- 7.1.3. If a percentage change is not being provided, this may be because there are no habitats on-site before the development, and a percentage change cannot be calculated from zero.
- 7.1.4. In this situation you should contact the consenting body to ask what the biodiversity gain requirement might be. This could be a requirement for an increase in biodiversity units, or an increase in area or length of habitat.
- 7.1.5. If your results do not show the gain percentage required, further work to avoid impacts, enhance additional habitats or create new areas of habitat will be needed to deliver a net gain.
- 7.1.6. The additional actions required will need to be targeted to the habitats that do not show the required gain. For example, creating a greater length of hedgerow where the hedgerow percentage increase in units is not at the required level. This could be only delivered on the development site if the SSM was used. If off-site delivery is required, the project must use the main metric.
- 7.1.7. The units required to deliver gains will be identified within the Headline Results tabs. You should also take note of the units required to achieve no net loss on the Detailed Results tab to inform the type of habitat and distinctiveness required to make up the shortfall in biodiversity units and satisfy the trading rules of the SSM. If additional avoidance, creation or enhancement is required you should seek units or credits from off-site providers and by using the main metric tool.

8. Data entry guide

8.1. Tab 1 – Introduction


NATURAL ENGLAND

Small Sites Metric

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Cell style conventions

	Enter data
	Automated equation
	Result
	Title cell
	Title cell alt colour
▲	Error
▲	Attention required
	Use of this cell is not required



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Technical Requirements - Excel Versions: 2010, 2013, 2016, 2019, Office 365, Excel for Android

- 8.1.1. Open the SSM on any device with Excel software installed. Any Excel version after and including 2010 can be used.

8.2. Tab 2 – Site Details

8.2.1. This is the Site Details tab. Input details of your project into the corresponding white cells (Cells 1-9).

Sheet Name	Site Details
1. Planning authority:	
2. Site name:	
3. Applicant:	
4. Planning application type:	
5. Planning application reference:	
6. Metric completed by (name & job title):	
7. Date of metric completion:	
8. Revision number:	
9. Masterplan document title / drawing number:	

8.2.2. On the same tab there is a box for the project's net gain targets (cells 10 and 11). These will be determined by the % target required of the project.

8.2.3. If you change these targets from 10%, for example to match targets set by the consenting body or the organisation you are running the assessment for, a note pops up highlighting that this change has been made.

Net Gain Targets		
10. Targeted % increase in Units	10a. Habitat	10.00
	10b. Hedgerow	10.00
	10c. River	10.00

8.2.4. If no unit-generating habitat is present (all habitats are of very low distinctiveness) at the start of the development (for example, if the site is entirely hard standing) it will not be possible to get a percentage gain in units. In this situation a unit increase target should be set. This could be set by or agreed with the consenting body and should be added into cell 11.

11. Targeted increase in Units if baseline value is zero - agreed with local planning authority	11a. Habitat units	0.00
	11b. Hedgerow units	0.00
	11c. River units	0.00

8.3. Tab 3 – Desktop Assessment

8.3.1. The desktop assessment includes details of the site and the relevant surrounding area and should be entered into cells 14 to 25. Cells 16 and 17 will not populate until Cell 14 is filled in.

8.3.2. The data to populate this tab should be sourced by:

- understanding the type of development in planning terms
- carrying out a data search of the site and immediate area for valuable ecological habitats
- and confirming the details through a site walkover

8.3.3. An error flag will be present until the date of the site walkover is added.

Site Name:	Enter site name on 2. Site Details	
Sheet Name	Desktop Assessment	
Development		
14. Select the type of proposed development. If Other provide details at Q.24 below		
15. Site area (m ²)		
Designated sites and priority habitats		
18. Any designated sites on or within 500m of the site?		
19. Any priority habitats on or within 500m of the site?		
20. List the designated sites and/or priority habitats		
21. Information sources used for assessment of designated sites and priority habitats (See guidance)		
Site walkover		
22. Site walkover completed?		
23. Date of site walkover - DD/MM/YY		Walkover date required ▲
24. Who completed the walkover? (Name and job title)		
Additional details		
25. Any additional information or notes		

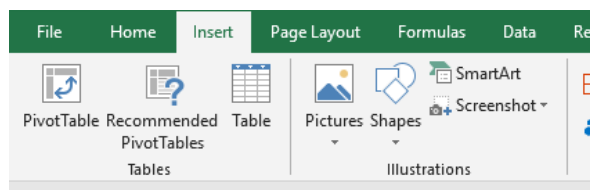
8.3.4. Enter data into the Desktop Assessment tab. This clarifies whether the SSM can be used. If the SSM is not appropriate for your site, a note directing you to use the main metric and to seek advice from a suitably qualified ecologist will appear. This includes clarifying whether the site is within or in close proximity (500m) to designated sites or priority habitats.

8.4. Tab 4 – Supporting information

- 8.4.1. This tab should be used to provide information to support your assessment. This should include a short description of the habitats present in the baseline and dated photos identifying the habitats. Space is provided for up to 40 photographs / descriptions to be included. At least one photograph must be provided for each habitat parcel entered into the SSM.
- 8.4.2. Images can be added by using the Pictures button located within the Insert section of the tool ribbon at the top of Excel.

Site Name:	Enter site name on 2. Site Details		
Sheet Name	Supporting Information		
Baseline Habitat Photos		In order to support the assumptions made within the metric please inset the relevant photographs	
Ref	Habitat type	Photo 1	Photo 2
1	Date taken		
2	Date taken		

- 8.4.3. If the file size becomes unmanageable once you have completed the SSM, you may wish to reduce the resolution of these images by using picture formatting options.



8.5. Tab 5 – Area Habitats General Overview

- 8.5.1. In this tab you first add information on habitats before the development (the baseline). Only habitats where area is measured in square metres should be entered in this tab. White fields can have information entered. Use the drop-down menus wherever available.

8.5.2. The tab also provides results for the habitats, allowing you to check results as you enter data.

Site Name: <input type="text"/>	Enter site name on 2. Site Details	Instructions: 1. Enter data into 1a. Elsewhere habitat table 2. Enter data on habitats to be created into 8. Habitats to be created 3. Enter data on habitats to be enhanced into 9. Habitats to be enhanced 4. Enter data on individual trees into 10. Tree area calculator	All Key Rules Satisfied ✓	Retained Units	0.0000
Block Name: <input type="text"/>	5. Area Habitats			Lost Units	0.0000
				Excavated Units	0.0000
				Enhancement Units	0.0000
				Net Change	0.0000

Ref	Habitat		C. Strategic significance	Area (m ²)			Baseline results		Comments	
	A. Broad Habitat	B. Habitat type		D. Total Area	E. Area retained	F. Area enhanced	Total habitat units onsite	Area Lost	Units lost	User comments
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Trees	Individual trees	Urban/Rural tree	Formally identified in local strategy	0.00	0.00	0.00	0.0000	0.00	0.0000	
Totals (Areas and Trees)				0.00	0.00	0.00	0.0000	0.00	0.0000	
Error Check 1				Areas Acceptable ✓						
Error Check 2				Areas Acceptable ✓						
Error Check 3				Areas Acceptable ✓						

Step 1 – Broad Habitat

8.5.3. In section 1a. Baseline habitats, fill in the broad habitat type from the drop-down menu in column A. Each different habitat parcel should be added as a separate row. If you run out of rows, habitat parcels of the same type can be combined.

Ref	Habitat	
	A. Broad Habitat	B. Habitat type
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
Individual tree	Individual tree	Urban/Rural tree

Step 2 – Habitat type

8.5.4. In the same section, fill in the habitat type from the drop-down list in column B. Each habitat parcel should be added as a separate row.

8.5.5. If any of the habitats present on site are unavailable within the SSM, you will need to use the main metric instead.

1a. Baseline habitats

Ref	Habitat	
	A. Broad Habitat	B. Habitat type
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
Individual tree	Individual tree	Urban/Rural tree

Step 3 – Strategic significance

8.5.6. Fill in the strategic significance of the habitat from the drop-down in column C for each habitat parcel.

C. Strategic significance	Areas (M ²)			Baseline results		
	D. Total Area	E. Area retained	F. Area	Total habitat	Area Lost	Units lost
Area/compensation not in local strategy/ no local strategy						
Formally identified in local strategy	0.00	0.00	0.00	0.0000	0.00	0.0000
Totals (areas excl Trees)	0.00	0.00	0.00	0.0000	0.00	0.0000
Error Check 1	Areas Acceptable ✓					
Error Check 2	Areas Acceptable ✓					
Error Check 3	Areas Acceptable ✓					

Step 4 – Total area

8.5.7. For each habitat parcel fill in the total area in square metres in column D. If part or all of the habitat parcel is retained or enhanced fill in the relevant column with the area that is retained or enhanced in columns E and F, respectively.

C. Strategic significance	Areas (M ²)			Baseline results		
	D. Total Area	E. Area retained	F. Area	Total habitat	Area Lost	Units lost
Area/compensation not in local strategy/ no local strategy						
Formally identified in local strategy	0.00	0.00	0.00	0.0000	0.00	0.0000
Totals (areas excl Trees)	0.00	0.00	0.00	0.0000	0.00	0.0000
Error Check 1	Areas Acceptable ✓					
Error Check 2	Areas Acceptable ✓					
Error Check 3	Areas Acceptable ✓					

8.5.8. If a habitat is enhanced, do not include the area in the retained column and vice-versa.

8.5.9. If the corresponding cell for the area enhanced is coloured grey it is not possible to enhance the selected habitat type within the SSM, and no area should be entered in the grey cell.

Step 5 – Habitats to be created

8.5.10. Below Table 1a go to the ‘1b Habitats to be created’ table.

8.5.11. The white columns within this table should be completed in the same way as for Table 1a with information on each habitat that will be created on the site.

1b. Habitats to be created									
Ref	A. Broad Habitat	B. Habitat type	Condition Assessment		D. Strategic significance	E. Total Area Areas (M ²)	Habitat units created onsite	Comments	
			Acceptable condition	C. Targeted condition				User comments	LPA comments
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
Individual tree	Individual tree	Urban/Rural tree	Moderate	Moderate	Area compensation not in local strategy/ no local strategy	0.00	0.0000		
Totals (Area and Trees)						0.00	0.0000		
Error Check 4							Areas Acceptable ✓		

Step 6 – Habitats to be enhanced

8.5.12. Below Table 1b go to the ‘1c Habitats to be enhanced’ table.

8.5.13. The first three columns will be automatically completed if you entered an area of habitat that will be enhanced in Table 1a. You will need to complete the habitat type that the enhancement is resulting in, in column A and the strategic significance of the habitat parcel in column B.

8.5.14. The condition will be automatically completed for many habitats.

8.5.15. Note that if you are not enhancing any habitats then this table will be left blank.

1c. Habitats to be enhanced

Baseline ref	Existing Habitat type		Enhanced Habitat type		D. Strategic significance	Area Enhanced	Enhanced Condition	Total Value	Net Improvement	Comments	
	Broad habitat type	Existing habitat type	Enhancement Type	A. Enhanced habitat type						User comments	LPA comments
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
Individual trees	Individual tree	Urban/Rural tree	Condition	Urban/Rural tree	Formally identified in local strategy	0.00	Good	0.0000	0.0000		
Totals (areas-eval Trees)						0.00		0.0000	0.0000		

Step 7 – Tree area calculator

8.5.16. At the bottom of Table 1a, 1b and 1c there is a row for trees. If you have trees on site, they are treated as an area-based habitat. To include the trees in the assessment, add the number of trees present before the development, the number being lost, the number being enhanced, and the number being created into Table 1d.

8.5.17. The trees should be split into the following categories: small (≤ 30 cm diameter at breast height (DBH)), medium (more than 30 to less than or equal to 90cm DBH) or large (more than 90cm DBH). Adding information into Table 1d will automatically fill in the information into Tables 1a, 1b and 1c.

1d. - Tree area calculator

Tree size (Diameter at breast height)	A. Total number of trees pre development	B. Number of trees retained (not enhanced)	C. Number of trees enhanced	D. Number of new trees planted post development	Areas			
					Area pre development	Area retained	Area Enhanced by development	Area of new trees planted post development
Small (DBH ≤ 30 cm)					0	0	0	0
Medium (DBH > 30 cm- 90cm)					0	0	0	0
Large (DBH > 90cm)					0	0	0	0
Total	0	0	0	0	0	0	0	0

Step 8 – Results

8.5.18. The results of the area-based habitat assessment are set out in Tables 1e and 1f below Table 1d.

1e. Trading Summary

Broad Habitat Type	Trading Rules Satisfied ✓
Distinctiveness Band	Trading Rules Satisfied ✓

1f. Habitat trading assessment

Broad habitat types	Distinctiveness band	Baseline units	Onsite provision	Net change	Trading satisfied?
Cropland	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Grassland	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Heathland and shrub	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Intertidal Hard Structures	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Intertidal sediment	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Lakes	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Sparsely vegetated land	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Urban	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Woodland and forest	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A
Coastal Saltmarsh	Low	0.0000	0.0000	0.0000	-
	Medium	0.0000	0.0000	0.0000	N/A

Distinctiveness band	Baseline units	Onsite provision	Net change	Trading satisfied?
Medium distinctiveness	0.0000	0.0000	0.0000	Yes ✓
Low distinctiveness	0.0000	0.0000	0.0000	Yes ✓
Are there sufficient Medium distinctiveness units to cover low distinctiveness losses?		0.0000		Yes ✓

8.6. Tabs 6 and 7 (Hedges and Lines of Trees and Watercourses)

- 8.6.1. For hedgerows and lines of trees and watercourses, the information should be completed in the same way as for the area-based habitats. Instead of an area measurement, a length measurement in metres, should be used.
- 8.6.2. For hedgerows, if there is a significant gap, then the habitat should be mapped as two separate hedgerows.
- 8.6.3. If any of the habitats present on site are unavailable within the SSM, you will need to use the main metric instead.

Site Name: Enter site name on 2. Site Details

Sheet Name: 6. Hedges & Lines of Trees

Instructions:

1. Enter data in the Baseline Habitats table

2. Scroll down to enter data for any habitats tabs created

3. Scroll down again to enter data for any habitats lines and/or d

All Key Rules Satisfied ✓

Baseline Units	0.0000
Lost Units	0.0000
Created Units	0.0000
Enhancement Units	0.0000
Net Change	0.0000

1a. Baseline habitats

Ref	Habitat		C. Strategic significance	Length M			Baseline results			Comments	
	A. Broad Habitat	B. Habitat type		D. Total Length	E. Length	F. Length	Total units	Length Lost	Units lost	User comments	LPA comments
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
Totals				0.00	0.00	0.00	0.0000	0.00	0.0000		
Error Check 1				Length Acceptable ✓							
Error Check 2				Length Acceptable ✓							

Site Name:	Enter site name on 2. Site Details	Instructions 1. Enter data in the Baseline Habitats table 2. Scroll down to enter data for any habitats to be created 3. Scroll down again to enter data for any habitats being enhanced	All Key Rules Satisfied ✓	Retained Units	0.0000
Sheet Name:	7. Watercourses			Lost Units	0.0000
				Created Units	0.0000
				Enhancement Units	0.0000
				Net Change	0.0000

1a. Baseline habitats

Ref	Habitat		C. Strategic significance	Length M			Baseline results			Comments	
	A. Broad Habitat	B. Habitat type		D. Total Length	E. Length	F. Length	Total units	Length Lost	Units lost	User comments	LPA comments
1	Watercourses										
2	Watercourses										
3	Watercourses										
4	Watercourses										
5	Watercourses										
6	Watercourses										
7	Watercourses										
8	Watercourses										
9	Watercourses										
10	Watercourses										
11	Watercourses										
12	Watercourses										
13	Watercourses										
14	Watercourses										
15	Watercourses										
16	Watercourses										
17	Watercourses										
18	Watercourses										
19	Watercourses										
20	Watercourses										
Totals				0.00	0.00	0.00	0.0000	0.00	0.0000		
Error Check 1				Lengths Acceptable ✓							
Error Check 1				Lengths Acceptable ✓							

8.7. Tab 8 – Headline Results

- 8.7.1. The results are presented in tab '8. Headline Results'.
- 8.7.2. The headline results tab presents the results for the area habitats, hedges and lines of trees, and watercourses. This tab also shows the overall result.

Site Name:	Enter site name on 2. Site Details		
Sheet Name	Headline Results		

Headline Results

Headline	BNG Targets Met ✓		
Trading Rules	Trading Rules Satisfied ✓		
Next steps	Submit metric to LPA		

Baseline Units	Habitat units	Zero Units Baseline	
	Hedgerow units	Zero Units Baseline	
	River units	Zero Units Baseline	

Post-development Units	Habitat units	0.0000	
	Hedgerow units	0.0000	
	River units	0.0000	

Total net unit change	Habitat units	0.0000	✓
	Hedgerow units	0.0000	✓
	River units	0.0000	✓

Total net % change	Habitat units	% target not appropriate	
	Hedgerow units	% target not appropriate	
	River units	% target not appropriate	

Habitats units required to meet target	0.0000
Hedgerow units required to meet target	0.0000
River units required to meet target	0.0000

- 8.7.3. If net gain is not delivered on-site, it can be delivered through habitat enhancement or creation off-site.
- 8.7.4. The main metric will need to be used for any project where off-site mitigation is required.
- 8.7.5. If further habitat retention, creation or enhancement is not possible on site and further biodiversity units are required to achieve targeted gains, contact the consenting body to discuss the options for delivering these gains elsewhere.
- 8.7.6. If there are gaps in the information you have added to the SSM, or you have added the information incorrectly, error messages will be flagged within the toolkit. An error message will be highlighted in a red box and with a white triangle. [Appendix 2](#) sets out what these errors are and how to address them.
- 8.7.7. It is important that all errors are addressed before the results are reviewed.

9. Appendix 1 – SSM habitat list

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Cropland	Arable field margins cultivated annually	Medium	Same broad habitat or a higher distinctiveness habitat required	No
Cropland	Arable field margins game bird mix	Medium	Same broad habitat or a higher distinctiveness habitat required	No
Cropland	Arable field margins pollen and nectar	Medium	Same broad habitat or a higher distinctiveness habitat required	No
Cropland	Arable field margins tussocky	Medium	Same broad habitat or a higher distinctiveness habitat required	No
Cropland	Cereal crops	Low	Same distinctiveness or better habitat required	Yes - to any medium distinctiveness cropland habitat
Cropland	Winter stubble	Low	Same broad habitat or a higher distinctiveness habitat required	No
Cropland	Horticulture	Low	Same distinctiveness or better habitat required	Yes - to any medium distinctiveness cropland habitat

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Cropland	Intensive orchards	Low	Same distinctiveness or better habitat required	Yes - to any medium distinctiveness cropland habitat
Cropland	Non-cereal crops	Low	Same distinctiveness or better habitat required	Yes - to any medium distinctiveness cropland habitat
Cropland	Temporary grass and clover leys	Low	Same distinctiveness or better habitat required	Yes - to any medium distinctiveness grassland habitat
Grassland	Bracken	Low	Same distinctiveness or better habitat required	Yes - to any medium distinctiveness cropland habitat
Grassland	Modified grassland	Low	Same distinctiveness or better habitat required	Yes - to any medium distinctiveness cropland habitat or to a good condition grassland
Grassland	Other lowland acid grassland	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Grassland	Other neutral grassland	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Grassland	Upland acid grassland	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Heathland and shrub	Blackthorn scrub	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Heathland and shrub	Bramble scrub	Medium	Same broad habitat or a higher distinctiveness habitat required	No
Heathland and shrub	Gorse scrub	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Heathland and shrub	Hawthorn scrub	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Heathland and shrub	Hazel scrub	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Heathland and shrub	Mixed scrub	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Heathland and shrub	Rhododendron scrub	Low	Same distinctiveness or better habitat required	No
Heathland and shrub	Other sea buckthorn scrub	Low	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Heathland and shrub	Willow Scrub	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Lakes	Ornamental lake or pond	Low	Same distinctiveness or better habitat required	Yes - to a non-priority habitat pond or to a good condition pond
Lakes	Ponds (non-priority habitat)	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Lakes	Reservoirs	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Sparsely vegetated land	Ruderal/Ephemeral	Low	Same distinctiveness or better habitat required	Yes – to urban - open mosaic habitat or to good condition
Sparsely vegetated land	Other inland rock and scree	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Urban	Allotments	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Urban	Artificial unvegetated, unsealed surface	Very low	Compensation Not Required	No

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Urban	Bioswale	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Urban	Biodiverse green roof	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Urban	Built linear features	Very low	Compensation Not Required	No
Urban	Cemeteries and churchyards	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Urban	Developed land; sealed surface	Very low	Compensation Not Required	No
Urban	Other green roof	Low	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Urban	Façade-bound green wall	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Urban	Ground based green wall	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Urban	Ground level planters	Low	Same distinctiveness or better habitat required	No

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Urban	Intensive green roof	Low	Same distinctiveness or better habitat required	Yes – to an extensive green roof or brown roof
Urban	Introduced shrub	Low	Same distinctiveness or better habitat required	No
Urban	Rain garden	Low	Same distinctiveness or better habitat required	No
Urban	Actively worked sand pit quarry or open cast mine	Low	Same distinctiveness or better habitat required	Yes – to Sparsely vegetated land - Other inland rock and scree
Urban	Urban tree	Medium	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Urban	Sustainable drainage system	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Urban	Un-vegetated garden	Very low	Compensation Not Required	No
Urban	Vacant or derelict land	Low	Same distinctiveness or better habitat required	No
Urban	Vegetated garden	Low	Same distinctiveness or better habitat required	No

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Woodland and forest	Other coniferous woodland	Low	Same distinctiveness or better habitat required	Yes – to any medium distinctiveness woodland or to a good condition woodland
Woodland and forest	Other Scot's pine woodland	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Woodland and forest	Other woodland; broadleaved	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Woodland and forest	Other woodland; mixed	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Littoral coarse sediment	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Coastal Saltmarsh	Artificial saltmarshes and saline reedbeds	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral coarse sediment	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral mud	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Intertidal sediment	Artificial littoral sand	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral muddy sand	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral mixed sediments	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral seagrass	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral biogenic reefs	Low	Same distinctiveness or better habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral sand	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Intertidal sediment	Artificial littoral muddy sand	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Intertidal	Artificial hard structures	Low	Same distinctiveness or better habitat required	Yes – to intertidal artificial hard structures with integrated greening of grey infrastructure (IGGI) of either medium or good condition
Intertidal	Artificial features of hard structures	Low	Same distinctiveness or better habitat required	Yes – to intertidal artificial hard structures with integrated greening of grey infrastructure (IGGI) of either medium or good condition
Intertidal	Artificial hard structures with integrated greening of grey infrastructure (IGGI)	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Hedgerow	Species-rich native hedgerow	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Hedgerow	Native hedgerow - associated with bank or ditch	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Hedgerow	Native hedgerow with trees	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Hedgerow	Native hedgerow	Low	Same distinctiveness or better habitat required	Yes – to any medium distinctiveness hedge and or to good condition
Hedgerow	Non-native and ornamental hedgerow	Very low	Compensation not Required	No
Line of trees	Line of trees	Low	Same distinctiveness or better habitat required	Yes – to any medium distinctiveness hedge with trees or line of trees and or to good condition
Line of trees	Ecologically valuable line of trees	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Line of trees	Line of trees - associated with bank or ditch	Low	Same distinctiveness or better habitat required	Yes – to any medium distinctiveness hedge with trees or line of trees and or to good condition
Line of trees	Ecologically valuable line of trees - associated with bank or ditch	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Rivers	Ditches	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition

Broad Habitat Group	Habitat Type	Distinctiveness Category	Trading Rules	Habitat retained and then enhanced within the SSM
Rivers	Canals	Medium	Same broad habitat or a higher distinctiveness habitat required	Yes – to the same habitat in good condition
Rivers	Culvert	Low	Same distinctiveness or better habitat required	Yes – to any medium distinctiveness river (canals or ditches)

10. Appendix 2 – SSM Troubleshooting Guide

SSM Error	SSM Tab where error occurs	Comments to address error
ERROR - Site too large for metric - USE MAIN METRIC	3. Desktop Assessment	If your site is above 5000m ² or is above 10,000m ² and classed as "residential" in cell Q14, the main metric must be used.
ERROR - Footprint too large for metric - USE MAIN METRIC	3. Desktop Assessment	The building footprint entered is too high. The main metric must be used.
ERROR - Footprint larger than development area	3. Desktop Assessment	The building footprint entered must be lower than the total site area in cell Q15.
ERROR - Number of units too large for metric - USE MAIN METRIC	3. Desktop Assessment	If your development is 10 or more residential units, the main metric must be used.
ERROR - Site too complex for metric - USE MAIN METRIC	3. Desktop Assessment	If a statutory designated site is within your site boundary, the site must be assessed by an ecologist and the main metric must be used
ERROR - Site walkover required	3. Desktop Assessment	A site walkover by an ecologist or competent person is a requirement of completing the SSM.
ERROR - Site photographs required to support application	4. Supporting Information	Photos are required of each habitat type on site if the walkover is not completed by an ecologist or competent person.
Rule Based Errors Present On Sheet - Red Cells Highlight Errors	5. Area Habitats 6. Hedges & Lines of Trees 7. Watercourses	One or more errors or important matters for consideration are present. Please read the content of all the red highlighted cells below and carry out the required actions.

SSM Error	SSM Tab where error occurs	Comments to address error
Technical Errors On Sheet	5. Area Habitats 6. Hedges & Lines of Trees 7. Watercourses	This error indicates that there is a drop-down option or an area that is incorrectly entered or is missing from a row on the sheet. Please check all cells requiring data entry.
ERROR - Site exceeds areas appropriate for the small site metric	5. Area Habitats	The total area of habitats entered for the site baseline is greater than that which is acceptable within the SSM, please use the main metric.
ERROR - Areas Retained and Enhanced Exceed Total Area	5. Area Habitats	The areas recorded as retained and or enhanced exceeds the total area of that habitat type.
ERROR - Areas Entered Does Not Match Stated Site Area	5. Area Habitats	The total area of baseline habitats entered does not match the site area stated on the site details sheet.
ERROR - Area of habitat creation must match area lost	5. Area Habitats	The total area of habitats created must match the total area of habitats lost.
ERROR - Trading Rules Not Satisfied - Insufficient Medium Distinctiveness Units Created	5. Area Habitats 6. Hedges & Lines of Trees 7. Watercourses	Habitat types lost to development are of higher value than those created or enhanced to replace them. It is recommended you consider the habitats created or enhanced further to see if any improvement is feasible.
ERROR - Trading Rules Not Satisfied - Insufficient Units Created Within Habitat Groups	5. Area Habitats 6. Hedges & Lines of Trees 7. Watercourses	The amount of habitat units lost to development is higher than those created or enhanced to replace them. It is recommended you consider the habitats created or enhanced further to see if any improvement is feasible.
ERROR - Lengths Retained and Enhanced Exceed Total Length	6. Hedges & Lines of Trees 7. Watercourses	The lengths recorded as retained and or enhanced exceed the total length of that habitat type.

SSM Error	SSM Tab where error occurs	Comments to address error
Area error	5. Area Habitats	One of the area values required for the calculation has not been entered, been entered incorrectly, or falls outside the SSM parameters. Please check that all required fields have been completed and that no mistakes have been made.
Value missing	5. Area Habitats	One of the area values required for the calculation has not been entered or has been entered incorrectly. Please check that all required fields have been completed and that no mistakes have been made.
Length error	6. Hedges & Lines of Trees 7. Watercourses	One of the lengths required for the calculation has not been entered or has been entered incorrectly. Please check that all required fields have been completed and that no mistakes have been made.
Error - Areas Retained and Enhanced Exceed Total Area	5. Area Habitats	The total area of habitats retained and enhanced is greater than the total baseline area for that habitat. Please check that the correct areas have been added to all columns.
Error - Areas Entered Does Not Match Stated Site Area	5. Area Habitats	The total baseline area for habitats entered into the SSM is greater than the site area entered into the site details tab. Please check that both are correct, for any habitats situated outside of the site, the main metric must be used.
This intervention is not permitted within the SSM	5. Area habitats 6. Hedges & Lines of Trees 7. Watercourses	The intended enhancement in condition is not possible within the SSM. Please select a different target condition.

11. Appendix 3 – UKHab Translation Table

11.1.1. The following translation table has been provided to assist landscape architects, architects, planning consultants and other professionals who may be more familiar with landscape terminologies to use the SSM.

Landscape Term	Unique Landscape Term (including code)	SSM Broad Habitat and Habitat Type	Distinctiveness
Saltmarsh	Saltmarsh - A2.5	Coastal saltmarsh - Saltmarshes and saline reedbeds	Medium
Cropland	Arable - c1c	Cropland - Cereal crops	Low
Cropland	Arable - c1c7	Cropland - Cereal crops other	Low
Cropland	Arable - c1d	Cropland - Non-cereal crops	Low
Cropland	Arable - c1b	Cropland - Temporary grass and clover leys	Low
Cropland margins	Arable - c1a7	Cropland - Arable field margins cultivated annually	Medium
Cropland margins	Arable - c1a8	Cropland - Arable field margins game bird mix	Medium
Cropland margins	Arable - c1a6	Cropland - Arable field margins pollen & nectar	Medium
Cropland margins	Arable - c1a	Cropland - Arable field margins tussocky	Medium
Cropland margins	Arable - c1c5	Cropland - Cereal crops winter stubble	Medium
Horticulture	Horticulture - c1f	Cropland - Horticulture	Low
Orchard	Orchard - c1e	Cropland - Intensive orchards	Low

Landscape Term	Unique Landscape Term (including code)	SSM Broad Habitat and Habitat Type	Distinctiveness
Amenity Grassland or Grassland Seed Mix	Amenity Grassland - g4	Grassland - Modified grassland	Low
Amenity Grassland or Grassland Seed Mix	Amenity Grassland - g4	Grassland - Other neutral grassland	Medium
Bracken	Bracken - g1c	Grassland - Bracken	Low
Meadow Grassland or Wildflower Seeding	Meadow Grassland - g1d	Grassland - Other lowland acid grassland	Medium
Meadow Grassland or Wildflower Seeding	Meadow Grassland - g3c	Grassland - Other neutral grassland	Medium
Meadow Grassland or Wildflower Seeding	Meadow Grassland - g1b	Grassland - Upland acid grassland	Medium
Invasive Scrub	Invasive Scrub - h3g	Heathland and shrub - Rhododendron scrub	Low
Native Scrub	Native Scrub - h3a	Heathland and shrub - Blackthorn scrub	Medium
Native Scrub	Native Scrub - h3d	Heathland and shrub - Bramble scrub	Medium
Native Scrub	Native Scrub - h3e	Heathland and shrub - Gorse scrub	Medium
Native Scrub	Native Scrub - h3f	Heathland and shrub - Hawthorn scrub	Medium
Native Scrub	Native Scrub - h3b	Heathland and shrub - Hazel scrub	Medium
Native Scrub	Native Scrub - h3h	Heathland and shrub - Mixed scrub	Medium

Landscape Term	Unique Landscape Term (including code)	SSM Broad Habitat and Habitat Type	Distinctiveness
Native Scrub	Native Scrub - h3cNE2	Heathland and shrub - Sea buckthorn scrub (other)	Low
Native Hedge	Native Hedge - h2NE5	Hedgerow - Native hedgerow	Low
Native Hedge	Native Hedge - h2NE2	Hedgerow - Species-rich native hedgerow	Medium
Native Hedge	Native Hedge - h2NE9	Hedgerow - Native hedgerow - associated with bank or ditch	Medium
Native Hedge with Standard Trees	Native Hedge with Standard Trees - h2NE4	Hedgerow - Native hedgerow with trees	Low
Native Hedge with Standard Trees	Native Hedge with Standard Trees - h2NE1	Hedgerow - Species-rich native hedgerow with trees	Medium
Native Hedge with Standard Trees	Native Hedge with Standard Trees - h2NE8	Hedgerow - Native hedgerow with trees - associated with bank or ditch	Medium
Ornamental Hedge	Ornamental Hedge - h2NE3	Hedgerow - Non-native and ornamental hedgerow	Very Low
Standard Trees	Standard Trees - w1g6NE4	Hedgerow - Line of trees - associated with bank or ditch	Low
Standard Trees	Standard Trees - w1g6NE2	Hedgerow - Line of trees	Low
Standard Trees	Standard Trees - w1g6NE1	Hedgerow - Ecologically valuable line of trees - associated with bank or ditch	Medium
Standard Trees	Standard Trees - w1g6NE3	Hedgerow - Ecologically valuable line of trees	Medium
INTERTIDAL TBC	INTERTIDAL TBC - ART_A1.4	Intertidal - Artificial features of hard structures	Low

Landscape Term	Unique Landscape Term (including code)	SSM Broad Habitat and Habitat Type	Distinctiveness
INTERTIDAL TBC	INTERTIDAL TBC - ART_A1	Intertidal - Artificial hard structures	Low
INTERTIDAL TBC	INTERTIDAL TBC - ART_A1_IGGI	Intertidal - Artificial hard structures with integrated greening of grey infrastructure (IGGI)	Medium
INTERTIDAL TBC	INTERTIDAL TBC - ART_A2.7	Intertidal - Artificial littoral biogenic reefs	Low
INTERTIDAL TBC	INTERTIDAL TBC - ART_A2.1	Intertidal - Artificial littoral coarse sediment	Low
INTERTIDAL TBC	INTERTIDAL TBC - ART_A2.4	Intertidal - Artificial littoral mixed sediments	Low
INTERTIDAL TBC	INTERTIDAL TBC - ART_A2.3	Intertidal - Artificial littoral mud	Low
INTERTIDAL TBC	INTERTIDAL TBC - ART_A2.24	Intertidal - Artificial littoral muddy sand	Low
INTERTIDAL TBC	INTERTIDAL TBC - ART_A2.21	Intertidal - Artificial littoral sand	Low
INTERTIDAL TBC	INTERTIDAL TBC - ART_A2.6	Intertidal - Artificial littoral seagrass	Low
INTERTIDAL TBC	INTERTIDAL TBC - A2.4	Intertidal - Littoral mixed sediments	Low
INTERTIDAL TBC	INTERTIDAL TBC - A2.21	Intertidal - Littoral sand	Medium
Reservoirs	Reservoirs - 108	Lakes - Reservoirs	Medium
Wildlife Pond	Wildlife Pond - r1b	Lakes - Ponds (non-priority habitat)	Medium
Canal	Canal - r1eNE1	Rivers & Streams - Canals	Medium

Landscape Term	Unique Landscape Term (including code)	SSM Broad Habitat and Habitat Type	Distinctiveness
Culvert	Culvert - rNE1	Rivers & Streams - Culvert	Low
Ditch	Ditch - r1eNE2	Rivers & Streams - Ditches	Medium
Ruderals	Ruderals - 17	Sparsely vegetated land - Ruderal/ephemeral	Low
Scree	Scree - s1d	Sparsely vegetated land - Other inland rock and scree	Medium
Allotments	Allotments - 910	Urban - Allotments	Low
Bare ground	Bare ground - 350	Urban - Vacant/derelict land/ bare ground	Low
Biodiverse Roof	Biodiverse Roof - 1113	Urban - Brown roof	Medium
Bioswale	Bioswale - 1191	Urban - Bioswale	Low
Cemetery	Cemetery - 800	Urban - Cemeteries and churchyards	Medium
Garden	Garden - 231	Urban - Vegetated Garden	Low
Garden	Garden - 232	Urban - Un-vegetated garden	Very low
Green Roof	Green Roof - 1111	Urban - Intensive green roof	Medium
Green Roof - Sedum	Green Roof - Sedum - 1112	Urban - Extensive green roof	Low
Green Wall	Green Wall - 1122	Urban - Facade-bound green wall	Low
Green Wall	Green Wall - 1121	Urban - Ground based green wall	Low
Impermeable Hardscape	Impermeable Hardscape - u1b	Urban - Developed land; sealed surface	Very low

Landscape Term	Unique Landscape Term (including code)	SSM Broad Habitat and Habitat Type	Distinctiveness
Ornamental Pond	Ornamental Pond - 362	Urban-Ornamental Lake or pond	Low
Ornamental Shrub Planting	Ornamental Shrub Planting - 1160	Urban - Introduced shrub	Low
Permeable Hardscape	Permeable Hardscape - u1c	Urban - Artificial unvegetated, unsealed surface	Very low
Planters	Planters - 1140	Urban - Ground level planters	Low
Quarry	Quarry - 1030	Urban - Sand pit quarry or open cast mine	Low
Standard Tree	Standard Tree - 1170	Urban - Urban tree	Low
SuDS	SuDS - 1192	Urban - Rain garden	Low
SuDS	SuDS - 1119	Urban - Sustainable drainage system	Low
Wall	Wall - u1e	Urban - Built linear features	Very low
Conifer Woodland	Conifer Woodland - w2c	Woodland and forest - Other coniferous woodland	Low
Conifer Woodland	Conifer Woodland - w2b	Woodland and forest - Other Scot's pine woodland	Medium
Native Broadleaved Woodland	Native Broadleaved Woodland - w1g	Woodland and forest - Other woodland; broadleaved	Medium
Native Mixed Woodland	Native Mixed Woodland - w1h	Woodland and forest - Other woodland; mixed	Medium

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