[redacted]

From: Robin Smithyman [redacted]
Sent: 16 September 2021 09:34
To: Aldridge, Steven
Subject: Re: Lea Castle Farm - Response to Cody Lavine comments in respect of planning application 19/000053/CM.
Attachments: Natural England Biodiversity Metric 2.0 Calculation Tool Beta Test - December 2019 Update (1) (LEA Castle)[1].xlsm

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Steve,

We have read the on line Memo dated 27th August 2021 from Cody Levine, Team Leader (Ecology) contained on the councils web site for active planning application 19/000053/CM. We are pleased to note that Cody has outlined that the majority of issues raised previously by himself, Wyre Forest DC Countryside and Technical Services Manager and Wyre Forest DC Arboricultural Officer in terms of Dormouse and veteran/ancient woodland have now been addressed. However, Cody has requested further clarification on 2 matters, as follows:

- Proposed ancient woodland protection measures and their compliance with NPPF para 180.c
- Biodiversity Net Gain metric data (a completed DEFRA Metric 2.0 spreadsheet)

Firstly, in terms of the second point for clarification, see attached the Biodiversity Net Gain calculation sheet.

In terms of clarification on the ancient woodland and protection measures, we are reassured that in respect of Dormouse, WCC have no objections as to the area surveyed, an appropriate survey method has been applied and the competence of the surveyors is satisfactory in compliance with BS42020 2O13. This bearing in mind that no evidence of any dormouse was found.

We also note that in respect of habitat loss, no suitable habitat for dormouse will be removed through the proposal and that through the restoration strategy there will be a net gain in suitable habitat for dormouse. It is noted that WCC confirm that this can be achieved through a suitable condition.

Turning to the potential for disturbance of woodland this was addressed within the 1st Regulation 25 response, Reference Appendix B, Information in Respect of Biodiversity: Arboriculture (Ancient Woodland, and Ancient and Veteran Trees) and Protected Species. This included the standoff to woodland adjacent to the mineral extraction boundary varying with a minimum 10m to the north west and north of Phase 1. These proposals were assessed and considered by WCC officers / others, with Cody Levine confirming in his email response of the 25th November 2020 *"that the applicant's proposals are acceptable, I've otherwise **no objections** to the scheme if suitable worded conditions could be imposed".*

We also note that Natural England and the Environment Agency have no objections to the standoff to the assessed limit of mineral extraction and woodland. Nor do Worcestershire Wildlife Trust.

You can see our confusion and concern that after the submission and assessment of the initial application and submission of the 1st Regulation 25 that and confirmation that the limits of extract have been assessed and are satisfactory that on the third Regulation 25, it appears that the limits of extraction now appear to require further clarification.

We are however reassured that this is not a matter of additional information, but as stated by Cody, it is for clarification and as such protection measures could be reasonably secured through the imposition of suitably worded conditions. We do not however consider that any additional protection to the north western, northern wooded boundary is required and have provided Steve Pagett's arboricultural and ecological assessment / comments below.

Having said this and in good faith, we are however willing to accept a condition which states **that no mineral extraction is to take place within 15m of any ancient woodland** (which may or may not include the wooded block boundary to the west of the site and to the north of Phase 1. This is a standard approach used by MPAs throughout the country. As Steve points out in his comments below: It should also be noted that the quarry workings will have a larger stand-off than the existing agricultural management that is currently in place along the site boundary. In sections along this woodland there are areas where the arable crop is planted immediately adjacent to the woodland with regular machinery and spraying activities taking place in these areas. It is assessed that in these areas with less stand-off than is to be in place for any quarry workings that agricultural practises are more likely to have an impact on any potential nesting dormice habitat. Bearing in mind that there is no evidence of any dormice.

Grateful if you could confirm that we have understood the comments made and that the application will still be determined at the October Planning and Regulatory committee.

Thank you

Regards

Robin

LEA Castle – Updated Response to Coady – September 2021 by Steve Pagett of Heaton (Comments outlined in red to Coady's points in black).

"I am not assured that mineral extraction operations within 10m of woodland edge would have no detrimental effect on woodland quality".
"The Worcestershire Habitat Inventory identifies 'Wolverley Lodge' (site reference 87023, contiguous on the north-west of the site) and Wolverley Carr (site reference 87026, located just beyond Wolverley Lodge, on the banks of the Staffordshire and Worcester Canal) as part of the local Ancient Woodland Catalogue, and so should be treated as an irreplaceable ancient woodland habitat."
"The Worcestershire Habitat Inventory identifies 'Wolverley Lodge' (site reference 87023, contiguous on the north-west of the site) and Wolverley Carr (site reference 87026, located just beyond Wolverley Lodge, on the banks of the Staffordshire and Worcester Canal) as part of the local Ancient Woodland Catalogue, and so should be treated as an irreplaceable ancient woodland habitat".
"While neither Wolverley Lodge nor Wolverley Carr are listed on Natural England's Ancient Woodland Inventory, this is not surprising given that woodlands <2hectares in size were not originally recorded systematically on the AWI. Natural England ancient woodland advice is nevertheless clear it is applicable to all ancient woodlands, whether identified on the AWI or not. This was brought to the applicant's attention in our Regulation 25 consultation (June 2020) when we stated that "The Worcestershire Habitat Inventory shows that the woodland bordering the northern and western edges of the site have been included in the county Ancient Woodland Catalogue (WNCT, JJ Day, 1983) as "Wolverley Lodge" (reference 87023). In view of this, the Mineral Planning Authority seeks further information regarding the proposed mitigation strategies in relation to this ancient woodland, and their suitability for protection of ancient woodland habitats".

"In conclusion, I believe matter 4 could be satisfactorily addressed if further information on ancient woodland buffers/protective measures is provided, and I believe that if the applicant were amenable, such protection measures could be reasonably secured through imposition of suitably worded condition".

The woodland surrounding the boundaries of the site has been designated as broad-leaved woodland within the Ecological Impact Assessment as no areas of Ancient Woodland were shown within the desk study using the MAGIC software. The Council's ecological response (24 March 2020) states that use of Worcestershire Habitat Inventory should be applied in order to assess whether these woodlands should be categorised as Ancient Woodlands.

A Preliminary search using the Worcestershire Habitat Inventory indicates that there may be areas of Ancient Woodand surrounding the site boundary, however this mapping software does not have definitive boundaries providing certainty on the exact location of Ancient Woodlands. For example, near the southern site boundary, the inventory shows an area of Ancient Woodland, however from the PEA Drawing we can see that within this area is an arable farmland. For this reason, it is difficult to understand exactly what areas have been assessed Ancient Woodland.

Using this software, it is noted that the core woodland area to the south showing Ancient woodland is approximately 350m to the south of the site boundary and the core Ancient Woodland to the North-West is 300m from the site boundary. It is only the dispersal extent which covers the woodlands immediately adjacent to the site boundary.

The MAGIC software shows that the woodlands bordering the site are mapped as broad-leaved woodland. When using this software to measure the size of these grouped woodlands it indicates that every section of woodland grouped surrounding the site is larger than 2ha. This is even the case for the smallest grouped section which includes the southern boundary and a small section of the western boundary. It is therefore assessed that these woodlands would have been recorded on Natural Englands Ancient woodland inventory in the case that all of these woodland sections are Ancient Woodland.

In terms of the suitability for root protection for the areas of the site boundary that the stand-off is only 10m, this will have no impact on the RPA for the woodland. As shown within the Arbourcultural survey report, these two sections of woodland are labelled as tree Group 4 and 5. The trees present within these woodland sections were assessed as Category C and the recommended RPA for both woodland groups was substantially under 10m. For tree Group 4 the RPA was 6m and for Tree Group 5 the RPA was 4.55m.

"In conclusion, I believe matter 4 could be satisfactorily addressed if further information on ancient woodland buffers/protective measures is provided, and I believe that if the applicant were amenable, such protection measures could be reasonably secured through imposition of suitably worded condition".

In relation to this point, the query is discussing impacts on a specific habitat as opposed to the species. As discussed earlier in the response, dormice will use habitats with regular human disturbance such as the M5 corridor and therefore whether or not the woodland is classified as Ancient Woodland or not doesn't change the suitability of the site or the woodland for this species. There will be areas across the UK where broad-leaved woodland not categorised as Ancient Woodland will have optimal nesting suitability for dormice in the case that the under-story habitat containing of hazel provides a suitable structure for nesting dormice with connectivity to the wider area.

It should also be noted that the quarry workings will have a larger stand-off than the existing agricultural management that is currently in place along the site boundary. In sections along this woodland there are areas where the arable crop is planted immediately adjacent to the woodland with regular machinery and spraying activities taking place in these areas. It is assessed that in these areas with less stand-off than is to be in place for any quarry workings that agricultural practises are more likely to have an impact on any potential nesting dormice habitat.

The Biodiversity Metric 2.0 - Calculation Tool
Start page

Instructions

Main menu

Results

View all

Reset view

Project details

Planning authority:	Worcstershire County Council
Project name:	LEA Castle
Applicant:	NRS
Application type:	Mineral
Planning application reference:	
Assessor:	
Reviewer:	
Revision:	
Assessment date:	
Planning authority reviewer:	

Cell style conventions

	Enter data
	Automatic lookup
	Result

The Biodiversity Metric 2.0 - Calculation Tool Instructions

Start page

Main menu

The Biodiversity Metric 2.0

auditing and accounting for biodiversity

Calculation Tool: Short Guide

Beta Version
July 2019
ISBN 978-1-78354-540-7

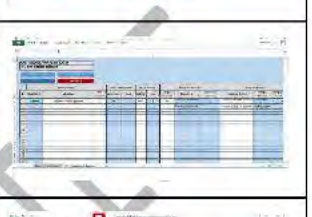
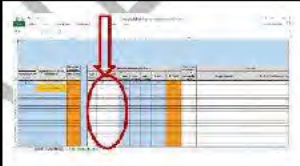
The Biodiversity Metric 2.0 – Calculation Tool Guidance

This guide shows you how to use the biodiversity metric 2.0 calculation tool in six quick steps.

Before starting you will need to know the following about your project:

- The types of habitat involved (on-site and off-site)
- The size of each habitat parcel (in hectares or, if linear, kilometres)
- The condition of each habitat parcel
- How ecologically connected the site(s) are
- Whether the site(s) are in locations identified as local nature priorities

START	
Open tool on any laptop with spreadsheet software installed. Press "Open Tool".	
This is the start page. Input details of your project into "Project Details". **Remember to periodically save your work.**	
Click the "Main Menu" button. The Worksheet Menu will then open like this. The next steps explain how to enter the key data for your project.	

Step 1: Entering Baseline Data	
Click the green "On-site habitat baseline" button at the left hand side of the page:	
Fill in all of the white columns. Some allow you to select from drop-down lists, others (such as Area) require you to input data. The tool will start automatically populating the blue columns.	
Scroll right and fill in all remaining "white" columns. Complete a new row for every habitat parcel found on site.	
When you have finished entering all the site baseline data scroll left and click the "Main menu" button.	

Step 2: Entering On- Site Post-Development Data	
In the Main Menu there are three buttons to enter data; "Habitat Creation", "Habitat Enhancement" and "Habitat Accelerated Succession". Data can be entered into each as appropriate by clicking the relevant green button.	
When you click on each "on-site post development" button a new screen will open. Fill in each of the white columns as appropriate. You will need to complete a new row for each habitat parcel on-site. Image shows the habitat creation screen.	
When you have finished entering data click the "Main menu" Button in the top left of the screen to return to the worksheet menu.	
Complete the "On-site habitat enhancement" and "On-site habitat accelerated succession" if needed by clicking the buttons and filling in the white columns. When finished return to the "Main menu".	
If you are seeking to achieve a biodiversity net gain outcome on-site no further data input is needed. You can now skip to "Step 4" to check the results and see whether an on-site biodiversity net gain has been achieved.	

Step 3: Entering Off-Site Data (NOTE: only needed when creating or enhancing habitat outside the project 'red line' boundary)	
You may skip this step if you are not creating or enhancing any habitats outside your development site and proceed to Step 4. Projects creating or enhancing any habitats outside your development ("off-site") will need to enter baseline habitat and habitat enhancement/creation data. This data can be entered using the green buttons highlighted under points 3 and 4 of the tool.	
Off-site data should be entered into the white columns on each of the off-site sheets. When entering data scroll right on the screen to ensure that all white data entry fields are completed. Complete a new row for each habitat type found off-site.	
When all "off-site" data has been entered click on the 'main menu' button.	
Step 4: Hedgerows, Lines of Trees, Rivers and Streams	
If your project contains hedgerows, lines of trees or rivers, streams and watercourses then you will need to fill in the additional metric modules for these habitats. They are separate from the main metric as each uses a slightly different calculation.	

On-site and off-site project data for these habitats should be entered in the same way as for area habitats by inputting data into the white columns.	
Step 5: The Results	
Click on the "Results" to see whether or not your project has achieved a forecast net biodiversity gain.	
On this screen you can click to see the "headline results", "detailed results" or the habitat trading summary'. In most circumstances only the 'headline' or 'detailed' results will be needed.	

The "headline results" page provides a breakdown of the biodiversity units lost and gained and the percentage loss or gain achieved in biodiversity units.	
For more detailed results click the "Detailed Results" button.	

Step 6: Saving and Submitting Your Assessment	
Go to save as and save the document as the same name as the user has put in the project title.	
Additional Functions	
Street Tree Helper The calculation tool also comes with a street tree helper to quickly convert your street tree measurements into an area calculation to use when calculating baseline and post-intervention values for street trees. Enter the number of trees of each size type and the tool will convert this into hectares.	
Technical Data Information about all of the technical data that underpins the calculation tool can be found by clicking the "Technical data" button on the main menu There is also a **conversion tool** embedded into the technical data section to allow for easy conversion between Phase1 and UKHab classifications	
Instructions A copy of these instructions can be accessed at any point in the tool by pressing the red instructions button	
Additional help and detailed instructions describing all of the functions of the calculation tool can be found in Chapter 4 of *The Biodiversity Metric 2.0 – User Guide*	

The Biodiversity Metric 2.0 - Calculation Tool
Main menu

Start page | Instructions | Technical data | Results

Street tree helper		
Tree size	Tree number	Area
Small		0.0000
Medium	170	0.6918
Large		0.0000
Total	170.00	0.6918

Start here

1 → 2 → 3 → 4

On-site baseline

- A-1 On-site habitat
- B-1 On-site hedge
- C-1 On-Site river baseline

On-site post development

- A-2 Habitat creation
- A-3 Habitat enhancement
- A-4 Habitat accelerated succession
- B-2 Hedgerow creation
- B-3 Hedgerow enhancement
- C-2 River creation
- C-3 River enhancement

Off-site baseline

- D-1 Off-site habitat
- E-1 Off-site hedge baseline
- F-1 Off-site river baseline

Off-Site post development

- D-2 Habitat creation
- D-3 Habitat enhancement
- D-4 Habitat accelerated succession
- E-2 Hedgerow creation
- E-3 Hedgerow enhancement
- F-2 River creation
- F-3 River enhancement

The Biodiversity Metric 2.0 - Calculation Tool

Return to start page

Headline results

Detailed results

Habitat trading summary

LEA Castle

Headline Results

Return to results menu

On-site baseline	Habitat units	124.07
	Hedgerow units	2.06
	River units	0.00
On-site post-intervention (including habitat retention, creation, enhancement & succession)	Habitat units	232.28
	Hedgerow units	5.48
	River units	0.00
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (including habitat retention, creation, enhancement & succession)	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention/creation)	Habitat units	108.20
	Hedgerow units	3.43
	River units	0.00
Total net % change (including all on-site & off-site habitat creation retained habitats)	Habitat units	87.21%
	Hedgerow units	166.52%
	River units	0.00%

LEA Castle
Detailed Results

Return to results menu

Summary Figures

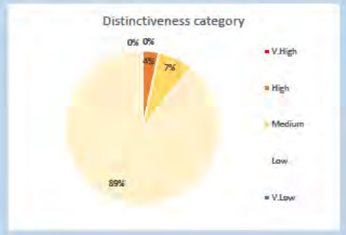
Net project biodiversity units (including all on-site & off-site habitat retention/creation)	*Habitat units*	108.20
	Hedgerow units	3.43
	River units	0.00
Total project biodiversity % change (including all On-site & Off-site Habitat Creation + Retained Habitats)	*Habitat units*	87.21%
	Hedgerow units	166.52%
	River units	0.00%

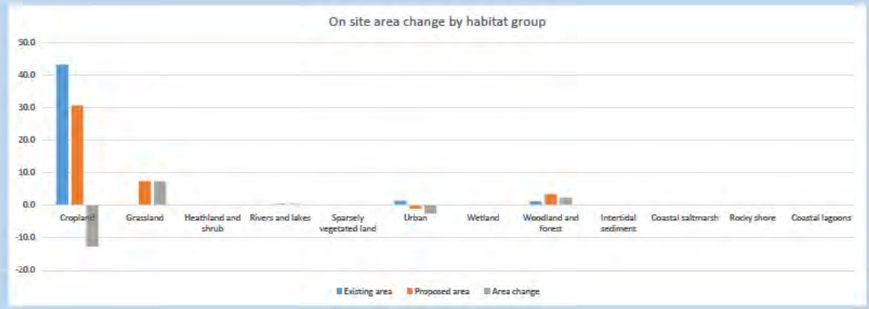
On-site habitat retention and enhancement

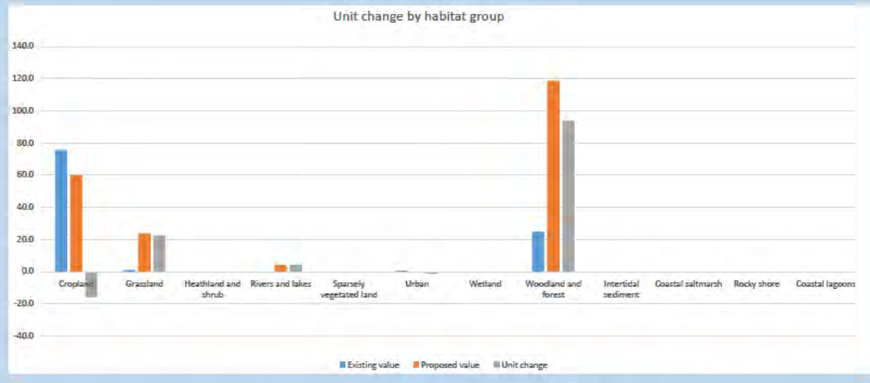
	Habitats	Hedgerows	Rivers
Total site area / length	46.06	0.85	0.00
Total site units	124.07	2.06	0.00
Area / length retained	8.01	0.00	0.00
Units Retained	17.34	0.00	0.00
Area / length enhanced	0.00	0.60	0.00
Baseline units enhanced	0.00	1.45	0.00
Area / length succession	1.21		
Units succession	4.46		
Area / length lost	36.84	0.25	0.00
Units lost	102.27	0.61	0.00

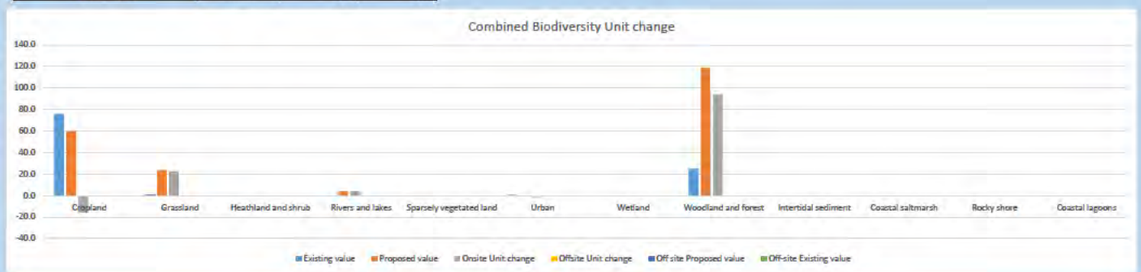
ı lost by distinctiveness ł

Category	Area lost (hectares)	Area lost (%)
V.High	0	
High	1.2253	3
Medium	2.65	7
Low	32.26	89
V.Low	0	





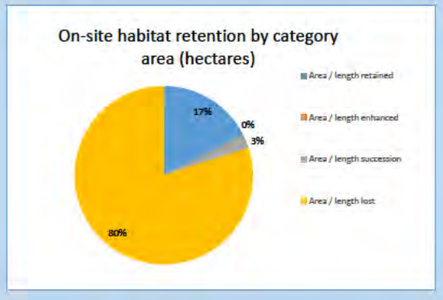


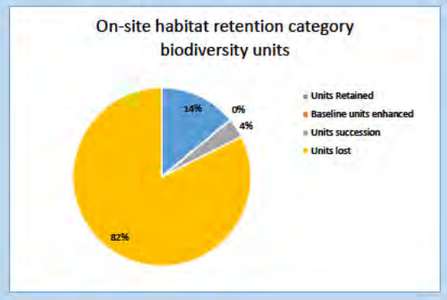


On-site	Baseline		Post development on site		Onsite Change	
Habitat group	Existing area	Existing value	Proposed area	Proposed value	Area change	Onsite Unit change
Cropland	43.3	75.7	30.7	59.8	-12.6	-15.9
Grassland	0.1	1.1	7.4	23.6	7.3	22.6
Heathland and shrub	0.0	0.0	0.0	0.0	0.0	0.0
Rivers and lakes	0.0	0.0	0.4	4.1	0.4	4.1
Sparsely vegetated land	0.0	0.0	0.0	0.0	0.0	0.0
Urban	1.4	0.6	-1.0	-0.6	-2.4	-1.2
Wetland	0.0	0.0	0.0	0.0	0.0	0.0
Woodland and forest	1.3	24.9	3.6	118.8	2.3	93.9
Intertidal sediment	0.0	0.0	0.0	0.0	0.0	0.0
Coastal saltmarsh	0.0	0.0	0.0	0.0	0.0	0.0
Rocky shore	0.0	0.0	0.0	0.0	0.0	0.0
Coastal lagoons	0.0	0.0	0.0	0.0	0.0	0.0

Overall Change	
Area change	Unit change
-12.6	-15.9
7.3	22.6
0.0	0.0
0.4	4.1
0.0	0.0
-2.4	-1.2
0.0	0.0
2.3	93.9
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0

Off-site	Baseline		Post development Off-site		Off-site Change	
Habitat group	Existing area	Off-site Existing value	Proposed area	Off site Proposed value	Area change	Offsite Unit change
Cropland	0.0	0.0	0.0	0.0	0.0	0.0
Grassland	0.0	0.0	0.0	0.0	0.0	0.0
Heathland and shrub	0.0	0.0	0.0	0.0	0.0	0.0
Rivers and lakes	0.0	0.0	0.0	0.0	0.0	0.0
Sparsely vegetated land	0.0	0.0	0.0	0.0	0.0	0.0
Urban	0.0	0.0	0.0	0.0	0.0	0.0
Wetland	0.0	0.0	0.0	0.0	0.0	0.0
Woodland and forest	0.0	0.0	0.0	0.0	0.0	0.0
Intertidal sediment	0.0	0.0	0.0	0.0	0.0	0.0
Coastal saltmarsh	0.0	0.0	0.0	0.0	0.0	0.0
Rocky shore	0.0	0.0	0.0	0.0	0.0	0.0





Coastal lagoons	0.0	0.0	0.0	0.0	0.0	0.0

Combined	Baseline		Combined Post development		Combined change	
Habitat group	Existing area	Existing value	Proposed area	Proposed value	Proposed area	Proposed value
Cropland	43.3	75.7	30.7	59.8	-12.6	-15.9
Grassland	0.1	1.1	7.4	23.6	7.3	22.6
Heathland and shrub	0.0	0.0	0.0	0.0	0.0	0.0
Rivers and lakes	0.0	0.0	0.4	4.1	0.4	4.1
Sparsely vegetated land	0.0	0.0	0.0	0.0	0.0	0.0
Urban	1.4	0.6	-1.0	-0.6	-2.4	-1.2
Wetland	0.0	0.0	0.0	0.0	0.0	0.0
Woodland and forest	1.3	24.9	3.6	118.8	2.3	93.9
Intertidal sediment	0.0	0.0	0.0	0.0	0.0	0.0
Coastal saltmarsh	0.0	0.0	0.0	0.0	0.0	0.0
Rocky shore	0.0	0.0	0.0	0.0	0.0	0.0
Coastal lagoons	0.0	0.0	0.0	0.0	0.0	0.0

Return to results menu

Check Proposed Habitat Trading

Very high		
Habitat group	Group	Existing area lost
Grassland - Lowland dry acid grassland	Grassland	0.00
Heathland and shrub - Mountain heaths and willow scrub	Heathland and shrub	0.00
Sparsely vegetated land - Limestone pavement	Sparsely vegetated land	0.00
Wetland - Blanket bog	Wetland	0.00
Wetland - Depressions on Peat Substrates (H7150)	Wetland	0.00
Wetland - Fens (upland and lowland)	Wetland	0.00
Wetland - Lowland raised bog	Wetland	0.00
Wetland – Oceanic Valley Mire[1] (D2.1)	Wetland	0.00
Wetland - Purple moor grass and rush pastures	Wetland	0.00
Wetland - Transition mires and quaking bogs (H7140)	Wetland	0.00
Grassland - Lowland meadows	Grassland	0.00
Grassland - Upland hay meadows	Grassland	0.00
lakes - Aquifer fed naturally fluctuating water bodies	Lakes	0.00
Sparsely vegetated land - Calaminarian grasslands	Sparsely vegetated land	0.00
Rocky shore - High energy littoral rock - on bedrock	Rocky shore	0.00
Rocky shore - Moderate energy littoral rock - on bedrock	Rocky shore	0.00
Rocky shore - Low energy littoral rock - on bedrock	Rocky shore	0.00
Rocky shore - Features of littoral rock - on bedrock	Rocky shore	0.00
Intertidal sediment - Littoral sediments dominated by aquatic angiosperms - on bedrock	Intertidal sediment	0.00
Intertidal sediment - Littoral biogenic reefs - on bedrock	Intertidal sediment	0.00
Total impact to be addressed through separate mechanism		0.00

Any rows highlighted in red within this table highlight habitat types that require further compensation in order to deliver the required number of units to reach no net loss

High								
Habitat group	Group	On-Site units lost	Units delivered on-site	On Site Unit Change	Units delivered off-site	Project wide Unit Change	Percentage change above loss	losses not yet accounted for
Cropland - Traditional orchards	Cropland	0.00	0 00	0 00	0 00	0.00		
Grassland - Floodplain Wetland Mosaic (CFGM)	Grassland	0.00	0 00	0 00	0 00	0.00		
Grassland - Lowland calcareous grassland	Grassland	0.00	0 00	0 00	0 00	0.00		
Grassland - Tall herb communities	Grassland	1.06	0 00	-1 06	0 00	-1.06		-1.06
Grassland - Upland calcareous grassland	Grassland	0.00	0 00	0 00	0 00	0.00		
Heathland and shrub - Lowland Heathland	Grassland	0.00	0 00	0 00	0 00	0.00		
Heathland and shrub - Sea buckthorn scrub (Annex 1)	Heathland and shrub	0.00	0 00	0 00	0 00	0.00		
Heathland and shrub - Upland Heathland	Heathland and shrub	0.00	0 00	0 00	0 00	0.00		
Lakes - High alkalinity lakes	Lakes	0.00	0 00	0 00	0 00	0.00		
Lakes - Low alkalinity lakes	Lakes	0.00	0 00	0 00	0 00	0.00		
Lakes - Marl Lakes	Lakes	0.00	0 00	0 00	0 00	0.00		
Lakes - Moderate alkalinity lakes	Lakes	0.00	0 00	0 00	0 00	0.00		
Lakes - Peat Lakes	Lakes	0.00	0 00	0 00	0 00	0.00		
Lakes - Ponds (Priority Habitat)	Lakes	0.00	4 09	4 09	0 00	4.09		
Lakes - Temporary lakes, ponds and pools	Lakes	0.00	0 00	0 00	0 00	0.00		
Sparsely vegetated land - Coastal sand dunes	Sparsely vegetated land	0.00	0 00	0 00	0 00	0.00		
Sparsely vegetated land - Coastal vegetated shingle	Sparsely vegetated land	0.00	0.00	0 00	0.00	0.00		
Sparsely vegetated land - Inland rock outcrop and scree habitats	Sparsely vegetated land	0.00	0.00	0 00	0.00	0.00		
Sparsely vegetated land - Maritime cliff and slopes	Sparsely vegetated land	0.00	0 00	0 00	0 00	0.00		
Urban - Open Mosaic Habitats on Previously Developed Land	Urban	0.00	0 00	0 00	0 00	0.00		
Wetland - Reedbeds	Wetland	0.00	0 00	0 00	0 00	0.00		
Woodland and forest - Lowland beech and yew woodland	Woodland and forest	0.00	0 00	0 00	0 00	0.00		
Woodland and forest - Lowland mixed deciduous woodland	Woodland and forest	23 96	140.84	116.89	0 00	116.89		
Woodland and forest - Native pine woodlands	Woodland and forest	0.00	0 00	0 00	0 00	0.00		
Woodland and forest - Upland birchwoods	Woodland and forest	0.00	0 00	0 00	0 00	0.00		
Woodland and forest - Upland mixed ashwoods	Woodland and forest	0.00	0 00	0 00	0 00	0.00		
Woodland and forest - Upland oakwood	Woodland and forest	0.00	0 00	0 00	0 00	0.00		
Woodland and forest - Wet woodland	Woodland and forest	0.00	0 00	0 00	0 00	0.00		
Woodland and forest - Wood-pasture and parkland	Woodland and forest	0.94	2 83	1 89	0 00	1.89		
Coastal lagoons - Coastal lagoons	Coastal lagoons	0.00	0 00	0 00	0 00	0.00		
Rocky shore - High energy littoral rock	Rocky shore	0.00	0 00	0 00	0 00	0.00		
Rocky shore - Moderate energy littoral rock	Rocky shore	0.00	0 00	0 00	0 00	0.00		
Rocky shore - Low energy littoral rock	Rocky shore	0.00	0 00	0 00	0 00	0.00		
Rocky shore - Features of littoral rock	Rocky shore	0.00	0 00	0 00	0 00	0.00		
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	0.00	0 00	0 00	0 00	0.00		
Intertidal sediment - Littoral sand and muddy sand	Intertidal sediment	0.00	0 00	0 00	0 00	0.00		
Intertidal sediment - Littoral mud	Intertidal sediment	0.00	0 00	0 00	0 00	0.00		
Intertidal sediment - Littoral mixed sediments	Intertidal sediment	0.00	0 00	0 00	0 00	0.00		
Coastal Saltmarsh -saltmarshes and saline reedbeds	Coastal Saltmarsh	0.00	0 00	0 00	0 00	0.00		
Intertidal sediment - Littoral sediments dominated by aquatic angiosperms	Intertidal sediment	0.00	0 00	0 00	0 00	0.00		
Intertidal sediment - Littoral biogenic reefs	Intertidal sediment	0.00	0 00	0 00	0 00	0.00		

cumulative positive - this sums only the positive values in order for them to be utilised to offset any deficit in lower distinctiveness bands	122 86

Error - Compensation Not Like For Like

Trading Down Liability High Distinctiveness/Units	0.00
Not Like For Like/Units	-1.06

Intertidal sediment - Features of littoral sediment	Intertidal sediment	0.00	0 00	0 00	0 00	0.00		
				121.81	0 00	121 81		-1 06

Medium								
Habitat Group	Group	On-Site units lost	Units delivered on-site	On site unit change	Units delivered off-site	Project wide unit change	Percentage change above loss	losses not yet accounted for
Cropland - Arable field margins cultivated annually	Cropland	0 00	0 00	0.00	0 00	0.00		
Cropland - Arable field margins game bird mix	Cropland	0 00	0 00	0.00	0 00	0.00		
Cropland - Arable field margins pollen & nectar	Cropland	0 00	0 00	0.00	0 00	0.00		
Cropland - Arable field margins tussocky	Cropland	11.66	0 00	-11.66	0 00	-11.66		-11.66
Cropland - Cereal crops winter stubble	Cropland	0 00	0 00	0.00	0 00	0.00		
Grassland - Bracken	Grassland	0 00	0 00	0.00	0 00	0.00		
Grassland - Other lowland acid grassland	Grassland	0 00	0 00	0.00	0 00	0.00		
Grassland - Other neutral grassland	Grassland	0 00	0 00	0.00	0 00	0.00		
Grassland - Upland acid grassland	Grassland	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Blackthorn scrub	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Bramble scrub	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Gorse scrub	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Hawthorn scrub	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Hazel scrub	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Mixed scrub	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Sea buckthorn scrub (other)	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Lakes - Ditches	Lakes	0 00	0 00	0.00	0 00	0.00		
Lakes - Reservoirs	Lakes	0 00	0 00	0.00	0 00	0.00		
Sparsely vegetated land - Calaminarian grasslands	Sparsely vegetated land	0 00	0 00	0.00	0 00	0.00		
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	0 00	0 00	0.00	0 00	0.00		
Urban - Allotments	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Artificial lake or pond	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Brown roof	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Cemeteries and churchyards	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Extensive green roof	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Orchard	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Woodland	Urban	0 00	0 00	0.00	0 00	0.00		
Woodland and forest - Felled	Woodland and forest	0 00	0 00	0.00	0 00	0.00		
Woodland and forest - Other Scot's Pine woodland	Woodland and forest	0 00	0 00	0.00	0 00	0.00		
Woodland and forest - Other woodland; broadleaved	Woodland and forest	0 00	0 00	0.00	0 00	0.00		
Woodland and forest - Other woodland; mixed	Woodland and forest	0 00	0 00	0.00	0 00	0.00		
Woodland and forest - Other woodland; Young Trees planted	Woodland and forest	0 00	0 00	0.00	0 00	0.00		
				-11.66	0.00	-11.66		-11.66

Medium cumulative offset plus high surplus, this number must be a positive when offsite compensation is factored in	122 86

Error - Compensation not Like For Like or Better - acceptable if same broad habitat type

Trading Down Liability Medium Distinctiveness/Units	0.00
Not Like For Like or Better/Units	-11.66
Cumulative Trading Error	0.00

Low								
Habitat group	Group	On-site units lost	Units delivered on-site	On site unit change	Units delivered off-site	Project wide unit change	Percentage change above loss	losses not yet accounted for
Cropland - Cereal crops	Cropland	62 50	59 83	-2.67	0 00	-2.67		-2.67
Cropland - Cereal crops other	Cropland	0 00	0 00	0.00	0 00	0.00		
Cropland - Horticulture	Cropland	0 00	0 00	0.00	0 00	0.00		
Cropland - Intensive orchards	Cropland	0 00	0 00	0.00	0 00	0.00		
Cropland - Non-cereal crops	Cropland	0 00	0 00	0.00	0 00	0.00		
Cropland - Temporary grass and clover leys	Cropland	1 54	0 00	-1.54	0 00	-1.54		-1.54
Grassland - Modified grassland	Grassland	0 00	0 00	0.00	0 00	0.00		
Heathland and shrub - Rhododendron scrub	Grassland	0 00	0 00	0.00	0 00	0.00		
Sparsely vegetated land - Ruderal/Ephemeral	Heathland and shrub	0 00	0 00	0.00	0 00	0.00		
Urban - Bioswale	Sparsely vegetated land	0 00	0 00	0.00	0 00	0.00		
Urban - Façade-bound green wall	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Ground based green wall	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Ground level planters	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Intensive green roof	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Introduced shrub	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Amenity grassland	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Rain garden	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Sand pit quarry or open cast mine	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Street Tree	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Suburban/ mosaic of developed/ natural surface	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Sustainable urban drainage feature	Urban	0 00	0 00	0.00	0 00	0.00		
Urban - Vacant/derelict land/ bareground	Urban	0.62	0 00	-0.62	0 00	-0.62		-0.62
Urban - Vegetated garden	Urban	0 00	0 00	0.00	0 00	0.00		
Woodland and forest - Other coniferous woodland	Urban	0 00	0 00	0.00	0 00	0.00		
Woodland and forest - Other coniferous woodland	Woodland and forest	0 00	0 00	0.00	0 00	0.00		
Rocky shore - Artificial high energy littoral rock	Rocky shore	0 00	0 00	0.00	0 00	0.00		
Rocky shore - Artificial moderate energy littoral rock	Rocky shore	0 00	0 00	0.00	0 00	0.00		
Rocky shore - Artificial low energy littoral rock	Rocky shore	0 00	0 00	0.00	0 00	0.00		
Rocky shore - Artificial features of littoral rock	Rocky shore	0 00	0 00	0.00	0 00	0.00		
Intertidal sediment - Artificial littoral coarse sediment	Intertidal sediment	0 00	0 00	0.00	0 00	0.00		
Intertidal sediment - Artificial littoral sand and muddy sand	Intertidal sediment	0 00	0 00	0.00	0 00	0.00		

Low cumulative offset plus high and medium surplus, this number must be a positive when offsite compensation is factored in	122 86

Low Trading Acceptable

Trading Down Liability High Distinctiveness/Units	0.00
Cumulative Trading Error	0.00

Check Proposed Habitat Trading

Intertidal sediment - Artificial littoral mud	Intertidal sediment	0 00	0 00	0.00	0 00	0.00		
Intertidal sediment - Artificial littoral mixed sediments	Intertidal sediment	0 00	0 00	0.00	0 00	0.00		
Intertidal sediment - Artificial littoral sediments dominated by aquatic angiosperms	Intertidal sediment	0 00	0 00	0.00	0 00	0.00		
Intertidal sediment - Artificial littoral biogenic reefs	Intertidal sediment	0 00	0 00	0.00	0 00	0.00		
Intertidal sediment - Artificial features of littoral sediment	Intertidal sediment	0 00	0 00	0.00	0 00	0.00		
				-4.83		-4.83		-4 83

A-1 Site Habitat Baseline

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A-2 Site Habitat Creation

Condense / Show Columns | Condense / Show Rows

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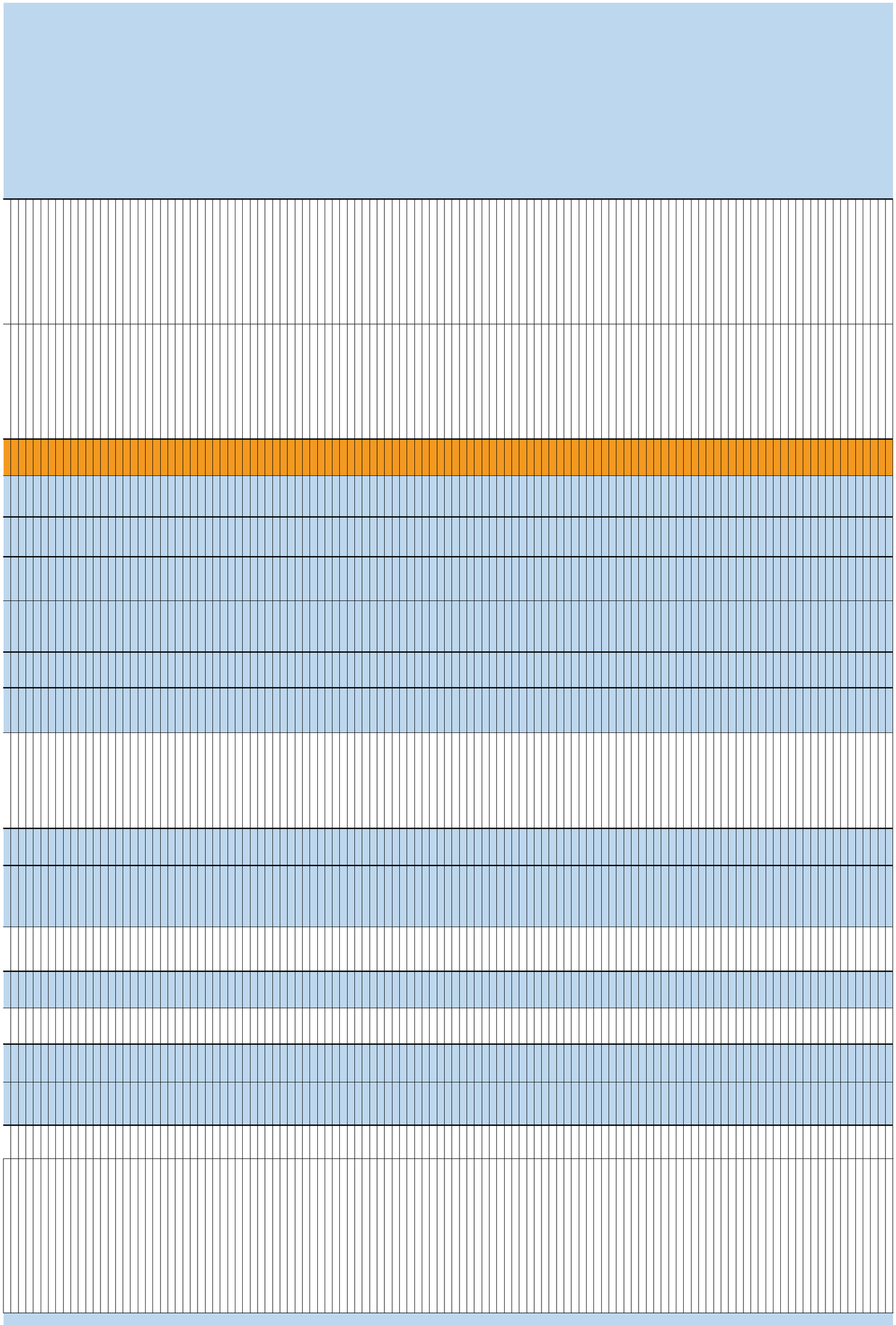
Post development/ post intervention habitats																		Comments	
						Ecological connectivity			Strategic significance			Temporal multiplier		Difficulty multipliers					
Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier	Difficulty of creation category	Difficulty of creation multiplier	Habitat units delivered	Assessor comments	Reviewer comments
Cropland - Cereal crops	23.23	Low	2	N/A - Agricultural	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0.965	Low	1	44.83		
Grassland - Lowland dry acid grassland	7.5	V.High	8	Good	3	Medium	Moderately connected habitat	1.1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	30	0.343	High	0.33	24.68		
Woodland and forest - Lowland mixed deciduous woodland	2.79	High	6	Good	3	Medium	Moderately connected habitat	1.1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	32+	0.320	High	0.33	6.41		
Lakes - Ponds (Priority Habitat)	0.4	High	6	Good	3	Medium	Moderately connected habitat	1.1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	10	0.700	Medium	0.67	4.09		
Woodland and forest - Wood-pasture and parkland	0.7	High	6	Good	3	Medium	Moderately connected habitat	1.1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	32+	0.320	Very High	0.1	0.48		



Totals	34.62														Total Units	80.50		

Check Areas- Area of development and habitat creation must match the area of habitats lost

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A-3 Site Habitat Enhancement

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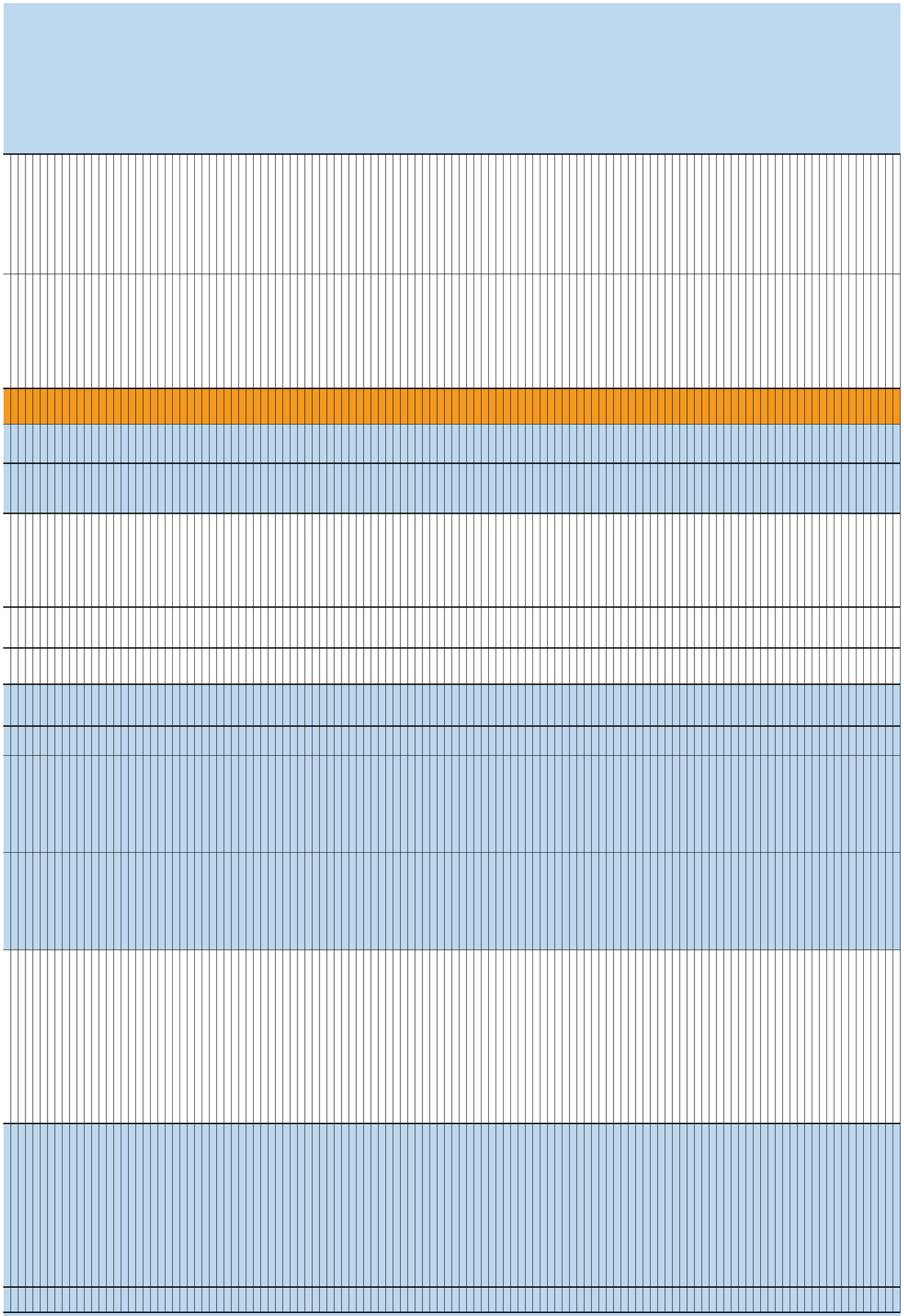
	Baseline habitats	Post development/ post intervention habitats											Comments	
		Change in distinctiveness and condition			Area (hectares)	Distinctiveness	Condition	Ecological connectivity	Strategic significance	Temporal multiplier	Difficulty multipliers	Habitat units delivered		
Baseline ref	Baseline habitat	Proposed habitat (Pre-populated but can be overridden)	Distinctiveness change	Condition change				Ecological connectivity score	Strategic significance	Time to target condition/years	Difficulty of enhancement category		Assessor comments	Reviewer comments



				Total site area	0.00						Enhancement total	0.00		

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A-4 Site Habitat Succession

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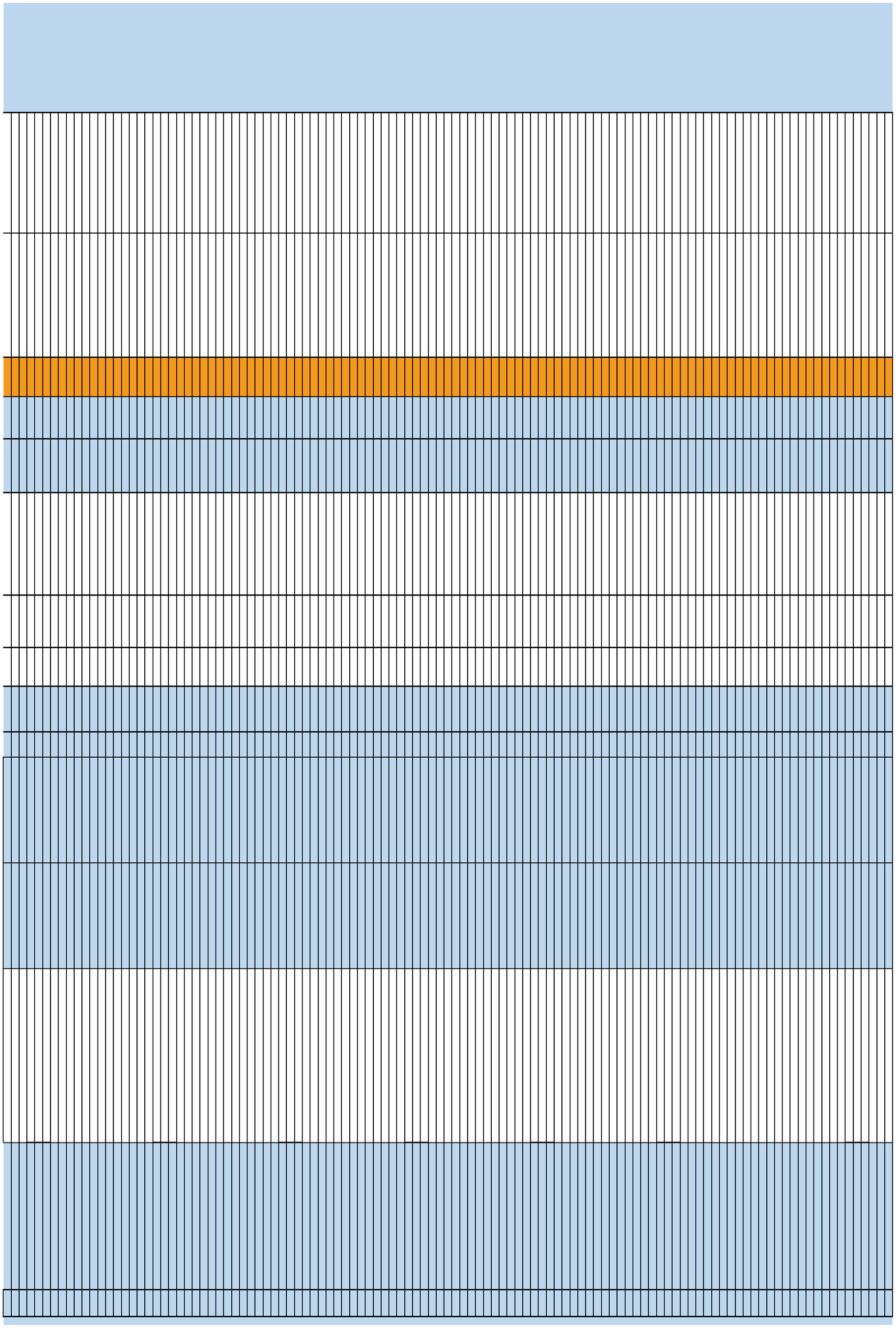
Baseline habitats		Post development/ post intervention habitats											Comments	
			Change in distinctiveness and condition					cological connectivit	Strategic significance	Temporal multiplier	Difficulty			
Baseline ref	Baseline habitat	Proposed habitat	Distinctiveness change	Condition change	Area ha	Distinctiveness	Condition	Ecological connectivity score	Strategic significance	Time to target condition/years	Difficulty of creation category	Habitat units delivered	Assessor comments	Reviewer comments
1	Cropland - Cereal crops	Woodland and forest - Lowland mixed deciduous woodland	Low - High	Lower Distinctiveness Habitat - Good	0.36	High	Good	Medium	Location ecologically desirable but not in local strategy	32+	High	112.09		
4	Cropland - Arable field margins tussocky	Woodland and forest - Lowland mixed deciduous woodland	Medium - High	Lower Distinctiveness Habitat - Good	0.85	High	Good	Medium	Location ecologically desirable but not in local strategy	32+	High	22.34		



				Total site area	**1.21**							**134.43**		

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B-1 Site Hedge Baseline

Condense / Show Columns | Condense / Show Rows

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	UK Habitats - existing habitats			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance				Ecological baseline	Retention category biodiversity value						Comments	
Baseline ref	Hedge number	Hedgerow type	length KM	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Suggested action to address habitat losses	Total hedgerow units	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost	Assessor comments	Reviewer comments
1	1	Native Hedgerow with trees	0.85	Low	2	Poor	1	Medium	Moderately connected habitat	1.1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	2.057		0.6	0	1.452	0.25	0.605		
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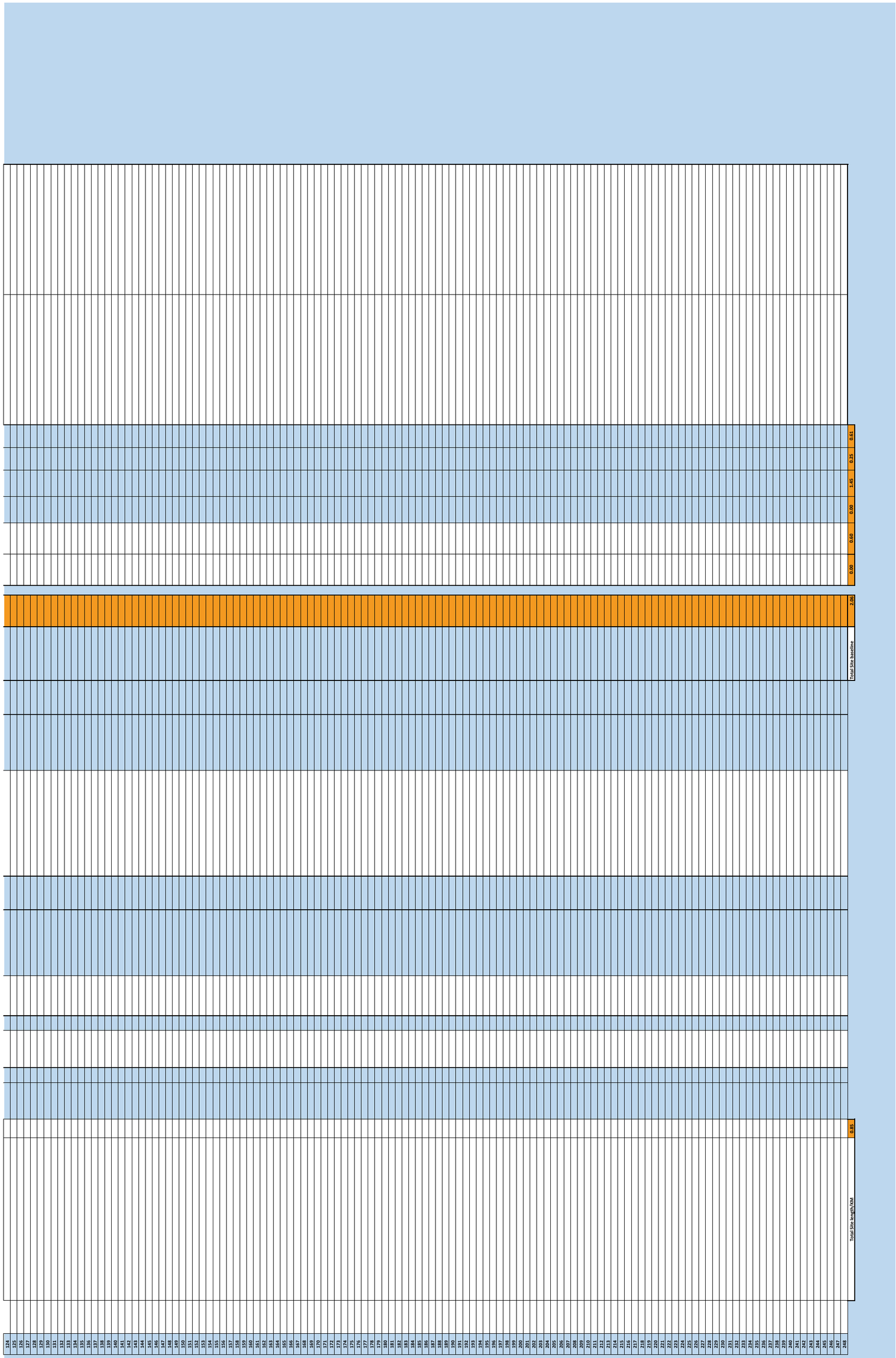
0.61
0.25
1.45
0.00
0.60
0.00
2.05
Total Site baseline
0.85
Total Site length/AM

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B-2 Site Hedge Creation

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Baseline ref	New hedge number	Proposed habitats: Habitat type	Proposed habitats: Length km	Habitat distinctiveness: Distinctiveness	Habitat distinctiveness: Score	Habitat condition: Condition	Habitat condition: Score	Multipliers: Ecological connectivity: Ecological connectivity	Multipliers: Ecological connectivity: Connectivity	Multipliers: Ecological connectivity: Connectivity multiplier	Multipliers: Spatial quality: Strategic significance: Strategic significance	Multipliers: Spatial quality: Strategic significance: Strategic significance	Multipliers: Spatial quality: Strategic significance: Strategic position multiplier	Multipliers: Temporal multiplier: Time to target condition/years	Multipliers: Temporal multiplier: Time to target multiplier	Multipliers: Difficulty of creation multiplier	Hedge units delivered	Comments: Assessor comments	Comments: Reviewer comments
1		Native Hedgerow	0.5	Low	2	Good	3	Medium	Moderately connected habitat	1.1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0.700	1	2.31		
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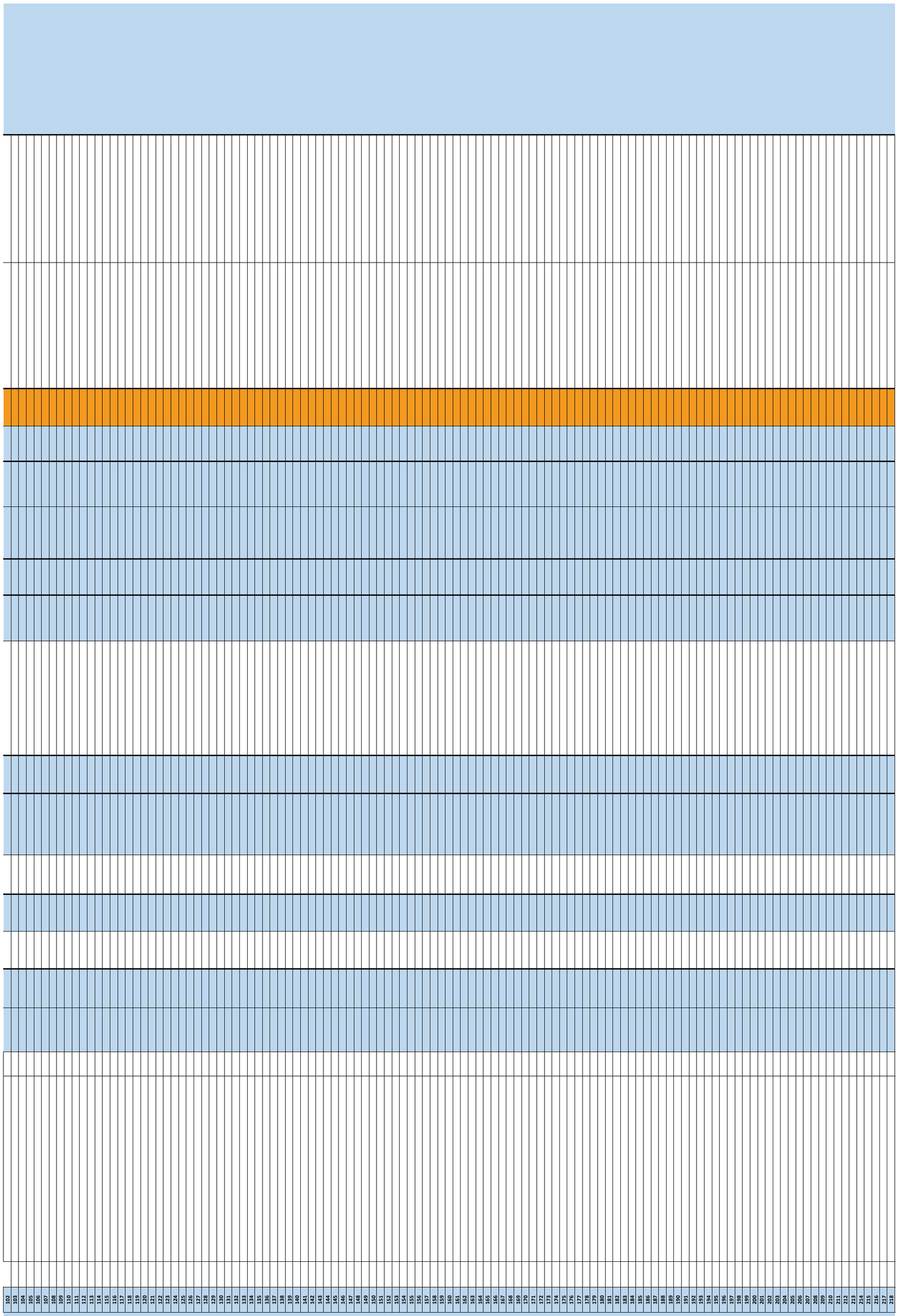

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		Creation Length/KM	0.50														2.31		

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B-3 Site Hedge Enhancement

Condense / Show Columns | Condense / Show Rows

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	Baseline Habitats	Post development/ post intervention habitats												Comments	
			Change in distincitiveness and condition						Strategic significance	Temporal multiplier	Difficulty Multipliers				
Baseline ref	Baseline habitat	Proposed	Distinctiveness movement	Condition movement	Length KM	Distinctiveness	Condition	Ecological connectivity	Strategic significance	Time to target condition/years	Difficulty of enhancement Category	Hedge units delivered	Assessor comments	Reviewer comments
1	Native Hedgerow with trees	Native Species Rich Hedgerow with trees	Low - Medium	Lower Distinctiveness Habitat - Good	0.6	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	20	Medium	3.17		

				Total site length	**0.60**							**3.17**		