

The Biodiversity Metric 2.0 - Calculation Tool

Start page

Project details

Planning authority:	St Helens Council
Project name:	Omega Zone 8
Applicant:	Omega Warrington Ltd
Application type:	Hybrid
Planning application reference:	
Assessor:	Mark Morgan
Reviewer:	
Revision:	A
Assessment date:	01/04/2020
Planning authority reviewer:	

Cell style conventions

	Enter data
	Automatic lookup
	Result

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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

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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".



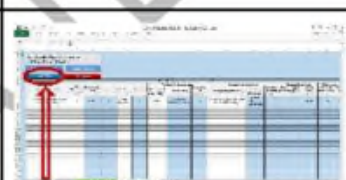
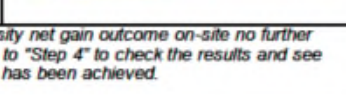
This is the start page. Input details of your project into "Project Details". Remember to periodically save your work.	
Click the "Main Menu" button. The Worksheet Menu will then open like this. The next steps explain how to enter the key data for your project.	

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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.	

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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.	

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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	

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 <i>The Biodiversity Metric 2.0 – User Guide</i>	

The Biodiversity Metric 2.0 - Calculation Tool

Main menu

Street tree helper		
Tree size	Tree number	Area
Small		0.0000
Medium		0.0000
Large		0.0000
Total	0.00	0.0000

Start page

Instructions

Technical data

Results

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](#)

Omega Zone 8

Headline Results

[Return to
results menu](#)

On-site baseline

<i>Habitat units</i>	55.15
<i>Hedgerow units</i>	2.97
<i>River units</i>	0.00

On-site post-intervention

(Including habitat retention, creation, enhancement & succession)

<i>Habitat units</i>	0.00
<i>Hedgerow units</i>	0.00
<i>River units</i>	0.00

Off-site baseline

<i>Habitat units</i>	6.21
<i>Hedgerow units</i>	0.00
<i>River units</i>	0.00

Off-site post-intervention

(Including habitat retention, creation, enhancement & succession)

<i>Habitat units</i>	22.85
<i>Hedgerow units</i>	1.18
<i>River units</i>	0.00

Total net unit change

(including all on-site & off-site habitat retention/creation)

<i>Habitat units</i>	-38.51
<i>Hedgerow units</i>	-1.79
<i>River units</i>	0.00

Total net % change

(including all on-site & off-site habitat creation + retained habitats)

<i>Habitat units</i>	-69.82%
<i>Hedgerow units</i>	-60.38%
<i>River units</i>	0.00%

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	0.00	0.00	0.00	0.00	0.00		
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	5.23	0.00	-5.23	1.84	-3.39		-3.39
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	45.39	0.00	-45.39	12.08	-33.31		-33.31
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	0.00	0.00	0.00	0.00	0.00		
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		

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

0.00

Error - Trading Down & Not Like For Like

Trading Down Liability High Distinctiveness/Units -36.70
Not Like For Like/Units -36.70

Intertidal sediment - Littoral biogenic reefs	Intertidal sediment	0.00	0.00	0.00	0.00	0.00		
Intertidal sediment - Features of littoral sediment	Intertidal sediment	0.00	0.00	0.00	0.00	0.00		
				-50.62	13.92	-36.70		-36.70

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	0.00	0.00	0.00	0.00	0.00		
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	1.63	0.00	-1.63	0.00	-1.63		-1.63
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	2.90	0.00	-2.90	0.00	-2.90		-2.90
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		
				-4.53	0.00	-4.53		-4.53

Medium cumulative offset plus high surplus, this number must be a positive when offsite compensation is factored in	0.00
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Error - Trading Down & Not Like For Like

Trading Down Liability Medium Distinctiveness/Units -4.53
Not Like For Like or Better/Units -4.53

Cumulative Trading Error -41.23

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	0.00	0.00	0.00	0.00	0.00		
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	0.00	0.00	0.00	0.00	0.00		
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	0.00	0.00	0.00	0.00	0.00		
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		

Low cumulative offset plus high and medium surplus, this number must be a positive when offsite compensation is factored in	0.00
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Low Trading Acceptable

Trading Down Liability High Distinctiveness/Units 0.00

Cumulative Trading Error -41.23

Check Proposed Habitat Trading

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		
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		
				0.00		0.00		0.00

Condense / Show Columns	Condense / Show Rows
Main Menu	Instructions

[illegible]

[illegible]

Omega Zone 8

A-2 Site Habitat Creation

Condense / Show Columns

Condense / Show Rows

[Main Menu](#)

Instructions

[illegible]

[illegible]

Omega Zone 8

A-3 Site Habitat Enhancement

Condense / Show Columns

Condense / Show Rows

[Main Menu](#)

Instructions

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

B-2 Site Hedge Creation

Instructions

[illegible]

[illegible]

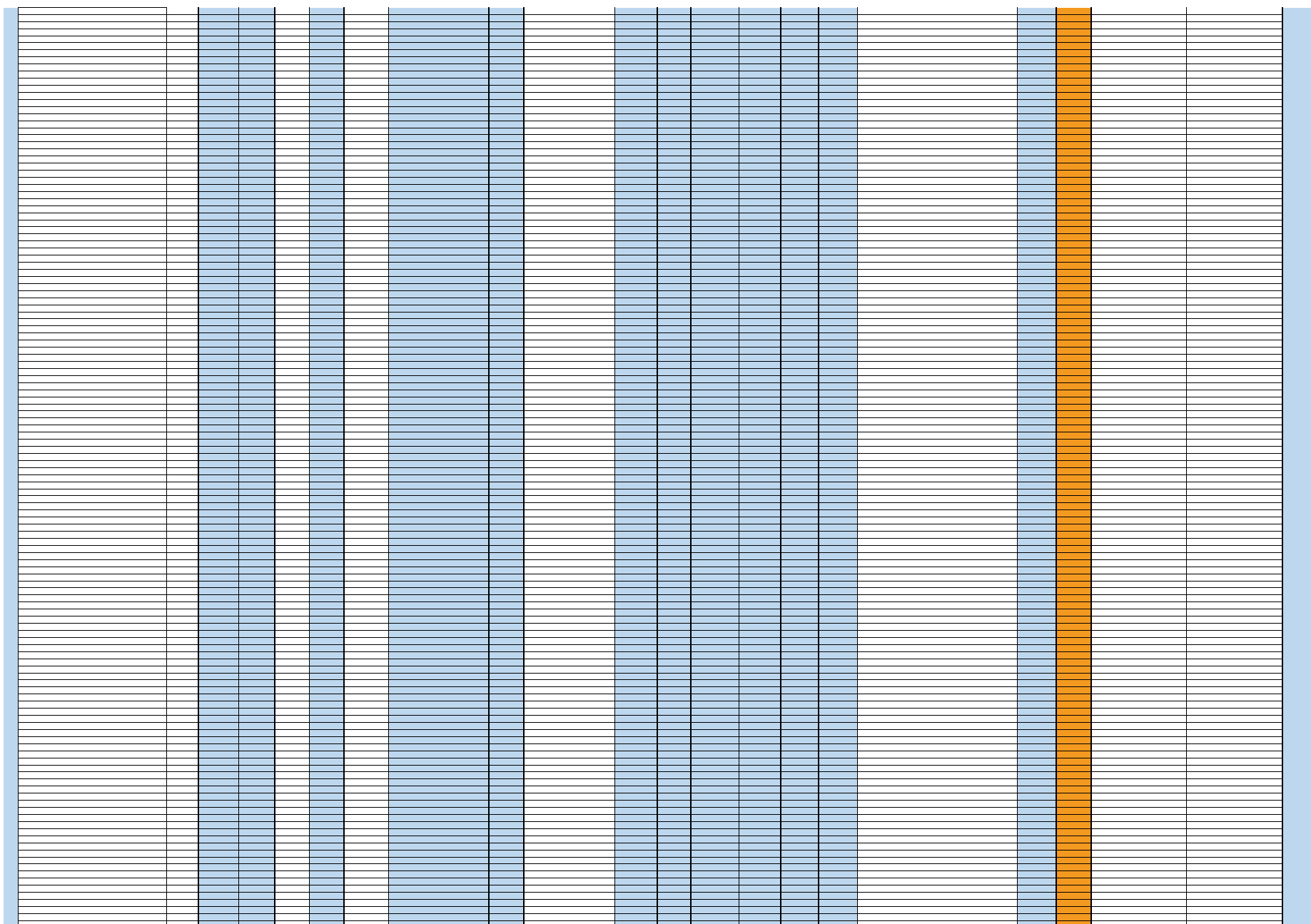
[illegible]

[illegible]

D-2 Off Site Habitat Creation

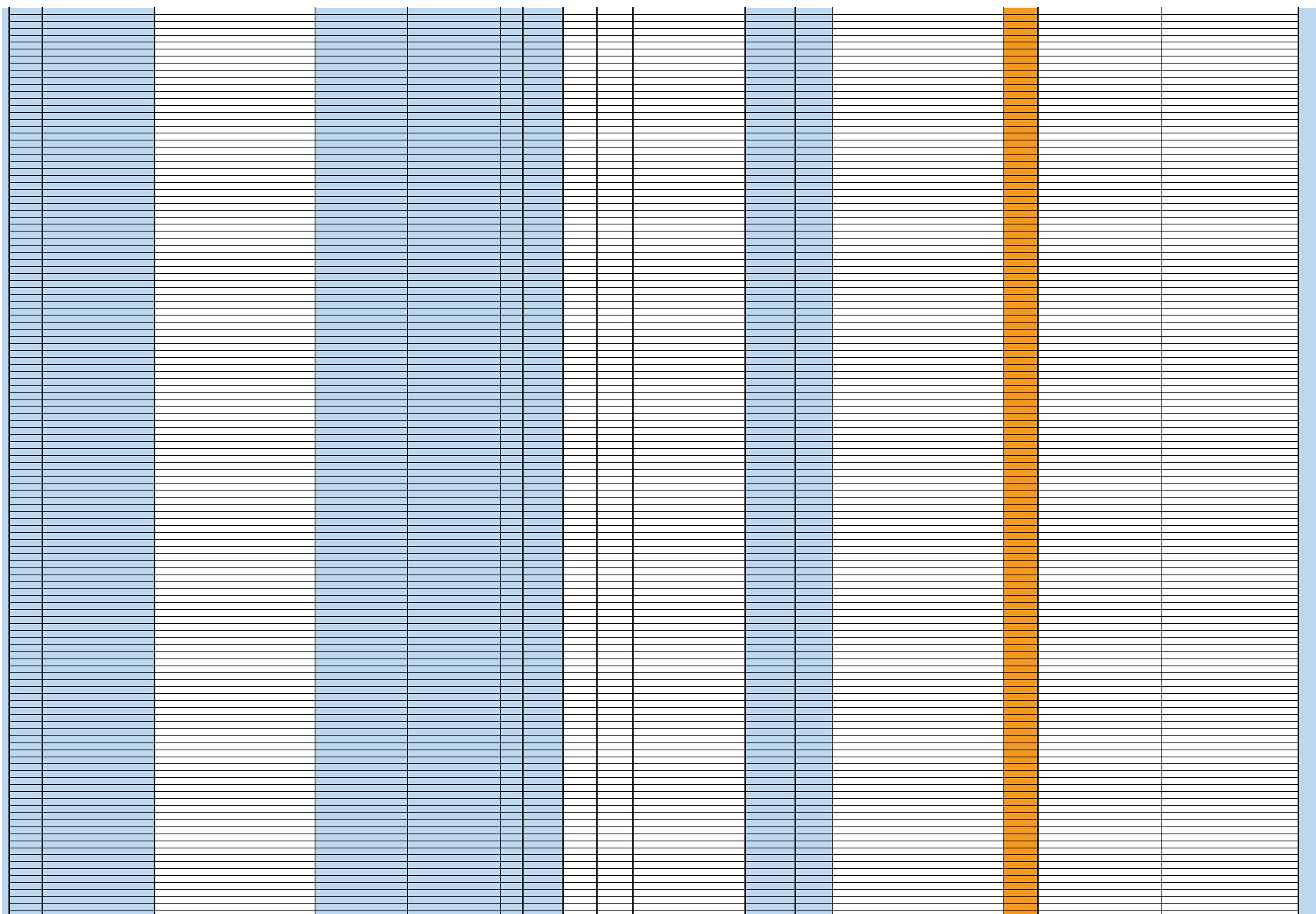
Instructions

[illegible]



[illegible]

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



Category	Value
Total site area	0.57
Total off-site area	7.37

Condense / Show Rows

Instructions

Instructions

[illegible]

[illegible]

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