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Biodiversity Metric 2.0 – Connectivity Tool Guidance

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The Biodiversity Metric 2.0 – Connectivity Tool Guidance

This guide shows you how to use the Biodiversity Metric 2.0 'Connectivity Tool' in a few simple steps.

It is important to note that the Connectivity Calculation Tool is to be used only to calculate ecological connectivity for habitats with a 'high' or 'very high' distinctiveness value. For all other distinctiveness categories continue to apply the interim approach set out in the 'User Guide'.

The connectivity tool is also not intended for use with Intertidal Habitats. The approach to be used here is described in the 'Intertidal Habitats addendum'. Connectivity is also not currently applied within the Rivers and Streams component of the Metric.

The output from the Connectivity Tool (a value of H/M/L for each habitat) should be entered manually into the appropriate 'Ecological Connectivity' column in the Biodiversity Metric 2.0 Calculation Tool. The Biodiversity Metric Calculation Tool will then generate a figure for equivalent biodiversity units based on the connectivity score of each habitat alongside the rest of the inputted data.

Before using the Connectivity Tool you will need to ensure you have the correct data files downloaded/installed to your PC. These are:

Site Extent: A shapefile containing the boundary of your site. This will either be i) the development boundary for calculations of connectivity of existing or proposed 'on-site' habitats or linear features or ii) the boundary of the 'off-site' area where net gain delivery is proposed.

Area Habitat Layer/Linear Habitat Layer: A shapefile containing either the results of your habitat survey or proposed enhancement/creation. The data MUST include a UKHAB habitat classification code or other habitat code used by the metric for each polygon/polyline in order for the tool to work. (For full list see 'All Area Habitats' tab within 'Technical Data' tab of Metric Calculator.)

Reference Habitat Folder: A national dataset of UK BAP Priority Habitat is supplied with the tool however this can be replaced with higher quality local habitat datasets if these are available.

Installing/Downloading the Connectivity Tool

We have provided the Connectivity Tool for downloading in 2 formats:

BMCT 2.0 Auto Installer has a built in installation 'wizard' which simply requires you to click 'Next' when prompted in order to download it to your desktop. It will then appear as a program icon accessible from the taskbar of your computer:

We recommend that you use this option if possible.

If that does not work for any reason see the end of this guidance for details of how to install the Connectivity Tool manually using the BMCT 2.0 Manual Installer option.

USING THE CONNECTIVITY TOOL

The tool requires you to load the 3 datasets previously described into the appropriate boxes:

First, select the '**Area Habitat Layer'** drop down menu by clicking the tab to the right of the box and enter your habitat survey or proposed habitat enhancement/creation shapefile

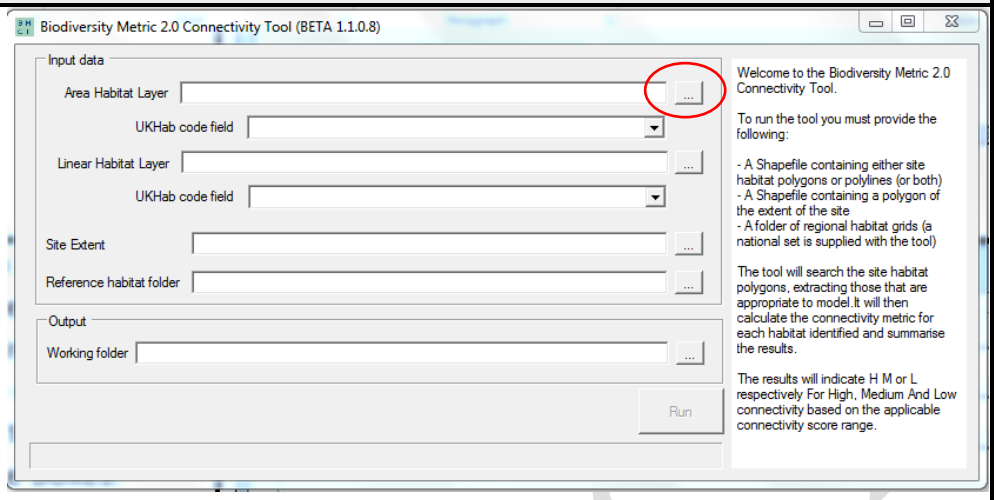
Then chose the drop down menu on the '**UKHab code'** field and click 'HabCode'

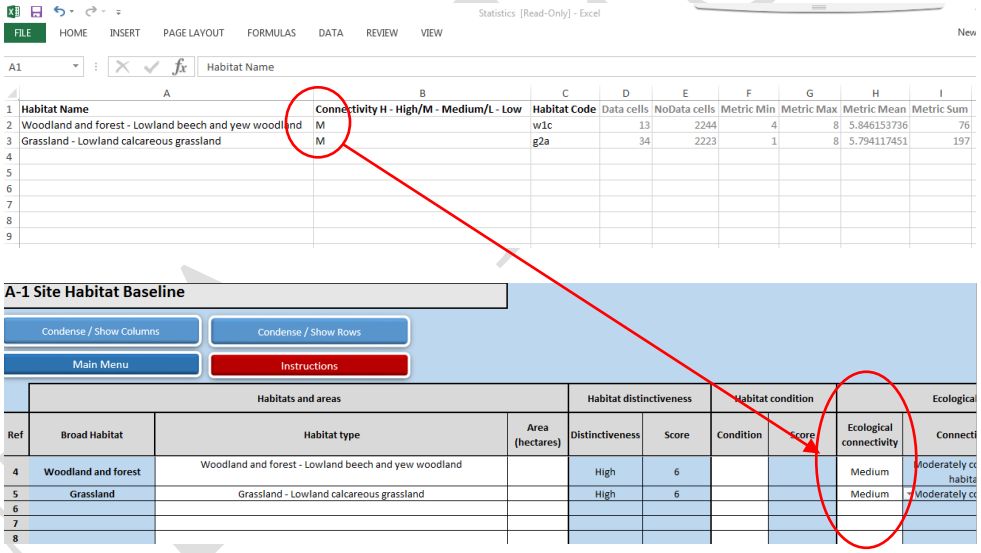
Now choose the drop down menu next to '**Linear Habitat Layer'** to enter your linear (hedgerows and lines of trees) shapefile. Then for the linear '**UKHAB code field'** again click 'HabCode'

For '**Site Extent'** you should add your site boundary shapefile

Then in '**Reference Habitat Folder'** enter the link to the Reference Habitat Folder supplied **OR** the link to your own local/regional Priority Habitat data and select 'OK'

Then chose the Output '**Working folder'**, and specify a folder in which to store the Connectivity Tool outputs OR click the 'Make new folder' Tab



in the pop-up to create a new folder. (N.B. If an existing folder is specified its contents will be replaced by the model outputs.) Then click the 'Run' tab.	
The Connectivity Tool will generate a score of 'Low, Medium or High' connectivity for each habitat type in an excel file format. This will then need to be inputted into the appropriate "Ecological Connectivity" column within the Metric Calculator.	Sample output connectivity score:  Statistics [Read-Only] - Excel FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW A1 Habitat Name A-1 Site Habitat Baseline Condense / Show Columns Condense / Show Rows Main Menu Instructions

	A	B	C	D	E	F	G	H	I
1	Habitat Name	Connectivity H - High/M - Medium/L - Low	Habitat Code	Data cells	NoData cells	Metric Min	Metric Max	Metric Mean	Metric Sum
2	Woodland and forest - Lowland beech and yew woodland	M	w1c	13	2244	4	8	5.846153736	76
3	Grassland - Lowland calcareous grassland	M	g2a	34	2223	1	8	5.794117451	197

	Habitats and areas			Habitat distinctiveness		Habitat condition			Ecological
Ref	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connecti
4	Woodland and forest	Woodland and forest - Lowland beech and yew woodland		High	6			Medium	Moderately co habita
5	Grassland	Grassland - Lowland calcareous grassland		High	6			Medium	Moderately co
6									
7									
8									

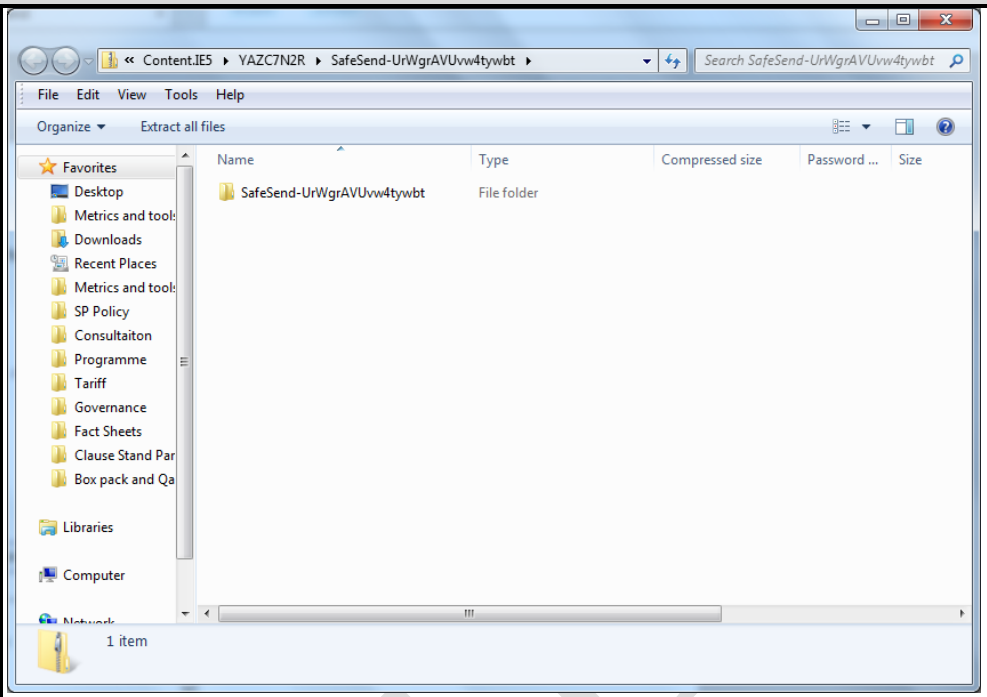
DOWNLOADING THE CONNECTIVITY TOOL USING MANUAL INSTALLER

If your IT system does not allow installation of the Connectivity Tool using the BMCT 2.0 Auto Installer wizard or this fails for any reason then Click on the BMCT 2.0 Manual Installer option.

Click on 'download all files as a Zip'.

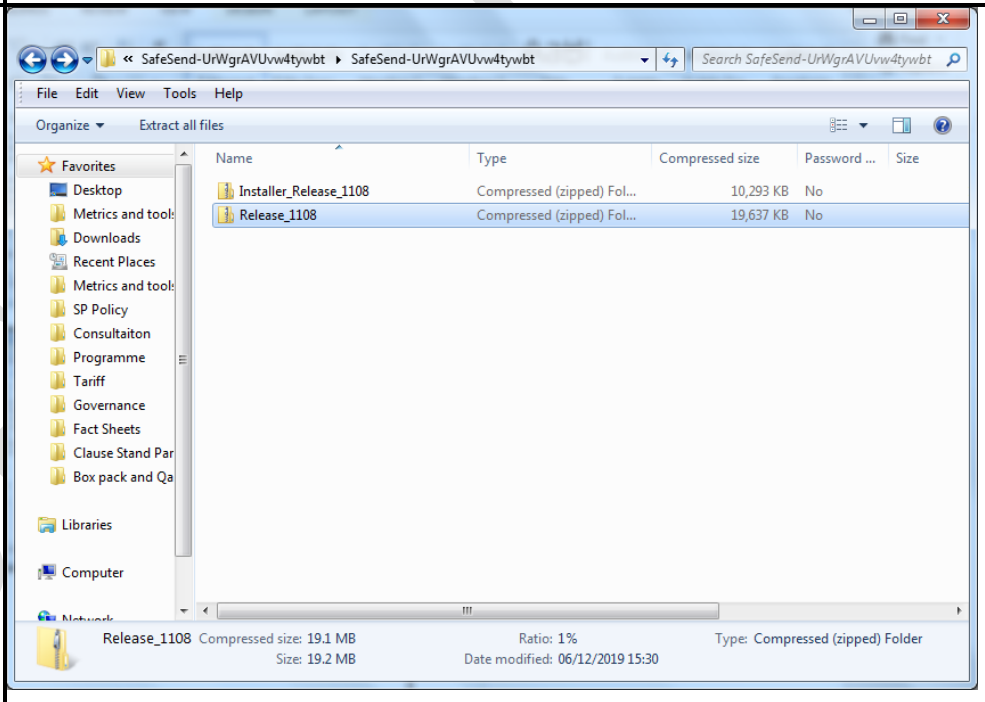
Click the pop up option 'open' and 'view download'

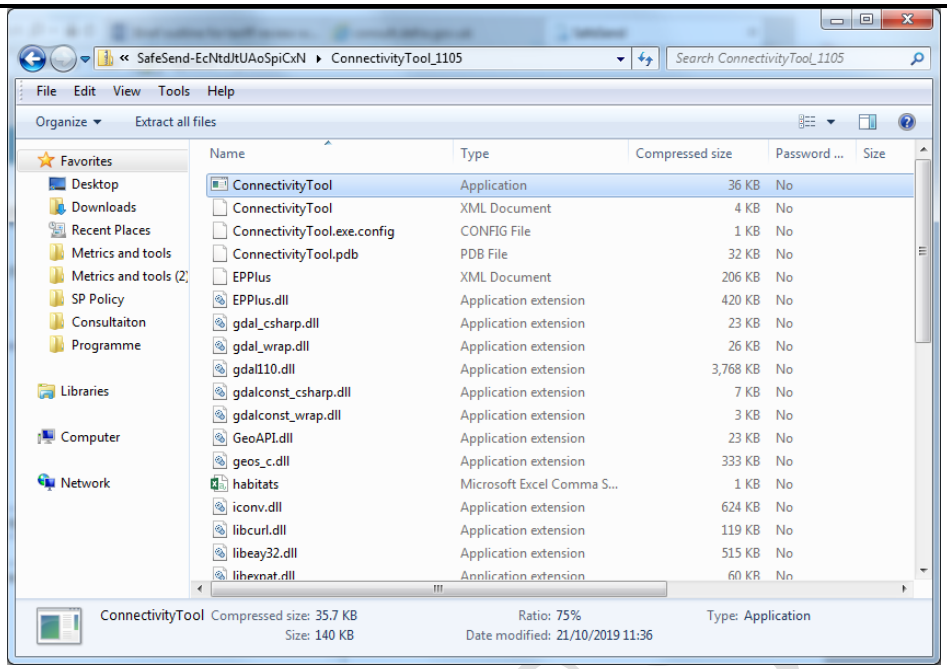
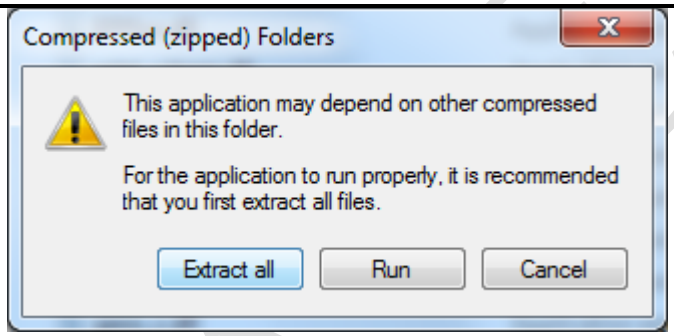
Select the file that appears on the screen:



This screen should then appear.

Choose 'Release_1108".



Then choose the first file named ‘ConnectivityTool Application’.	
Click ‘Extract All’ and then ‘Run’	
You will then have the Connectivity Tool open on your computer and the BMCT icon will automatically appear in your taskbar.