



Impact of land cover on air temperature

Ecosystem service: Climate change regulation – Urban temperature effects

What the service is:

Natural vegetation has a cooling effect on the surrounding land, which in the case of mature trees can be up to 2° Centigrade. Conversely, sealed surfaces (such as buildings and roads) reflect heat and have a warming effect on the surrounding environment.

Why it is important:

The cooling effect of vegetation can be exploited to reduce overheating of urban areas in the summer. It can reduce the need for running air conditioning units and therefore reduce electricity and carbon used.

How it was created:

The map was created by considering the likely cooling or heating effect of each area of land and then modelling the interaction between the two. Areas which contribute most to cooling are coloured dark blue. Areas which contribute most to warming are coloured light blue.

The map has been created using existing datasets; they should be interpreted as the best available information at the current time. They have been created at a strategic scale and are indicative at a field level, therefore field visit should be undertaken before any specific management decisions are taken.