

## R1: Carbon Storage

### **Ecosystem Service Definition**

Quantities of carbon stored in soil and vegetation, rather than the ability of habitat to actively sequester carbon over time.

### **Baseline Methods & Rationale**

A non-relational dataset was produced to map the Carbon Storage ecosystem service baseline within Gloucestershire. The rationale for not selecting a modification layer for the Carbon Storage baseline was (i) the absence of an available dataset that could be used as a spatial modifier for the ecosystem service and (ii) the complexity of interaction between a habitat's spatial configuration and its ability to sequester carbon.

### **Opportunity Methods & Rationale**

A non-relational dataset was also produced to map the Carbon Storage ecosystem service opportunity. As a result, the opportunity output was produced by subtracting each value from the maximum value in the dataset, so the lowest scoring baseline cells are the highest scoring for opportunity.

### **Limitations and Further Development**

Knowledge on wetland and soil carbon storage is currently less developed than is the case for woodlands; as a result, these habitats classes may be under-scored in the eco-metric matrix.

Literature indicating the extent to which habitats near to sources of carbon emissions store carbon, compared with those further from these sources, could allow a meaningful modifier for the carbon storage baseline to be developed.

### **References**

tbc

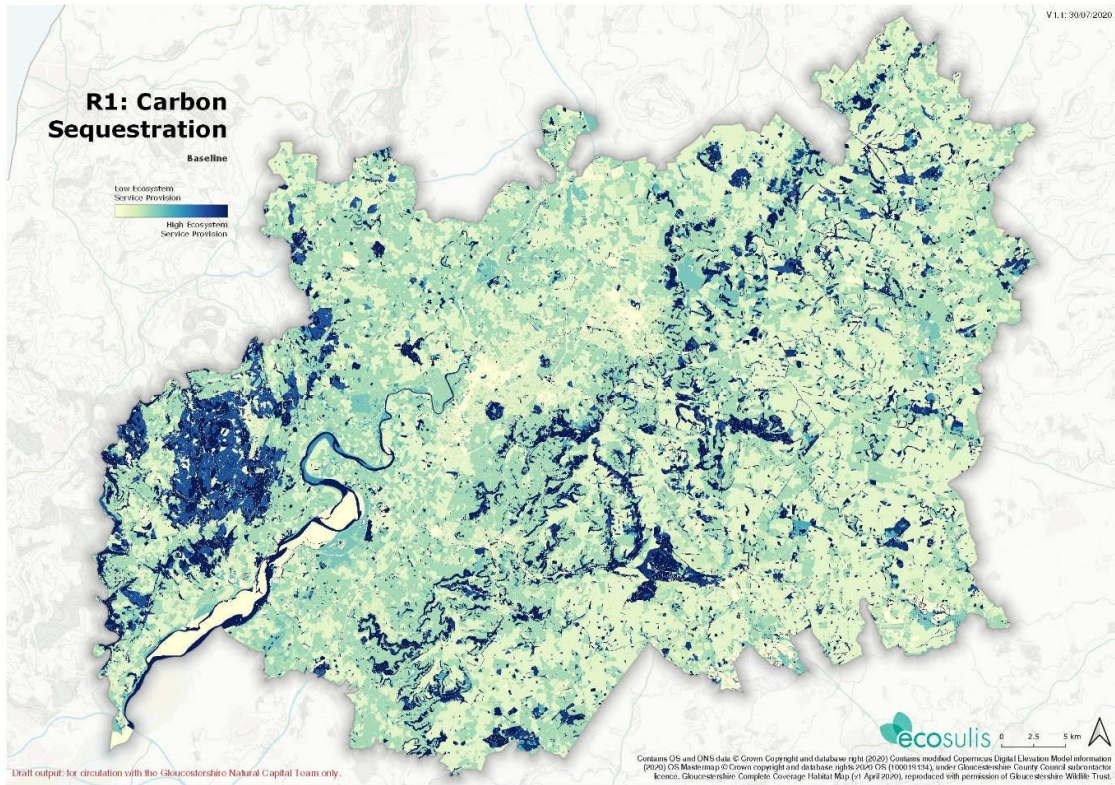


Figure R1.1: Carbon Storage Baseline (non-relational)

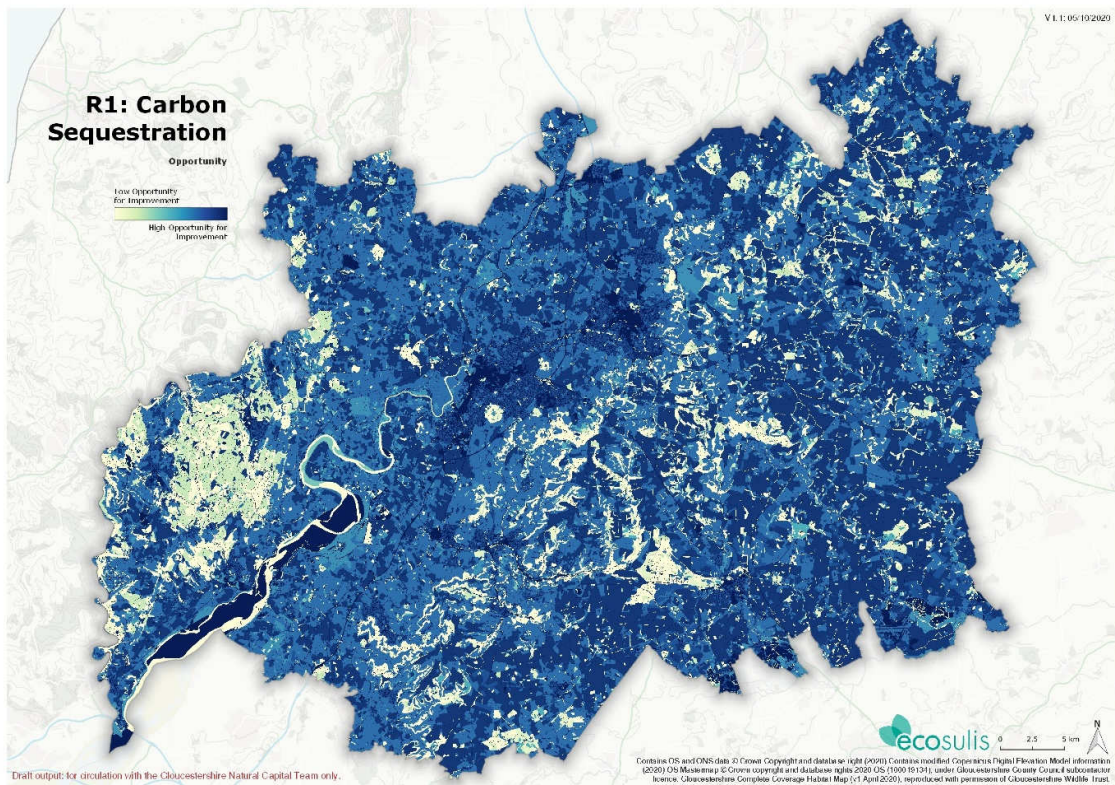


Figure R1.2: Carbon Storage Opportunity (non-relational)