

## B2: Water Quality

### **Ecosystem Service Definition**

Uptake of pollutants dissolved or suspended in water by vegetation, and the ability of vegetation to prevent pollutants reaching waterbodies through interception and filtration.

### **Baseline Methods & Rationale**

A non-relational dataset was produced to map the Water Quality ecosystem service baseline within Gloucestershire. The rationale for not selecting a modification layer for the Carbon Storage baseline was (i) the absence of an appropriate 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 influence on water quality.

### **Opportunity Methods & Rationale**

An opportunity dataset was not produced for the water quality ecosystem service due to the absence of a meaningful data that can be used to assess where the ecosystem service of water quality currently being delivered by natural capital assets is not meeting demand for delivery of the ecosystem service.

### **Limitations and Further Development**

The water quality baseline assumes habitat is the only factor in determining how a given habitat influences water quality. The reality is much more complex with factors such as land management, topography and water flow rate, and underlying geology all influencing water quality. Water framework directive (WFD) data whereby water bodies are assessed for their quality based on a series of indicators, may be a useful supporting dataset for this analysis.

Inclusion of flow accumulation modelling may also allow detailed analysis of overland flows, in turn, further analysis of the potential of a given area of land to deliver the water quality ecosystem service.

Figure B2.1: Water Quality (non-relational)

## B2: Water Quality (baseline)

