

# Tool Assessor

## Information Sheet

Ecosystems  
Knowledge  
Network

## Viridian



### Quick Facts

#### Inputs

Maps / GIS data

#### Outputs

Georeferenced raster maps as tiff images or data feeds

#### Scale

Local and regional scale

#### Context

A range of land uses, not urban

#### Cost

The tool is a consultancy service from Landmark

#### Software required

None - the tool is run by Viridian. It is run using ArcGIS.

#### Skills Required

None - the tool is run by Viridian. Further analysis of map outputs require GIS skills

#### Developer

Viridian

### Description

Viridian is an in-house tool run on a consultancy basis that shows what type of habitat to create and where to create it in order to provide nature-based solutions to local problems. It splits ecosystem services into two categories: water-flow services and place-based services. The output maps show how to maximise ecosystem service benefits, habitat connectivity and return on investment, in order to tackle problems such as meeting water quality targets and providing natural flood management..

### Ecosystem services included

Regulating, provisioning and cultural ecosystem services.

### Habitats

Semi-natural grasslands, woodland, enclosed farmland, freshwater, wetlands and floodplains, mountains, moors and heaths and coastal margins.

### How does it work?

Viridian first ranks each 5 m pixel across the study area for its current and future ability to solve water-flow problems, using a set of algorithms. It then identifies ability and opportunity values for place-based services, such as recreation and air quality. Finally, the water-flow and place-based services are combined to show trade-offs, synergies and options for improvement.

### Case studies in the UK

At The Nant Crew, Brecon Beacons, the Viridian tool it was used to identify areas where habitat creation could help to ameliorate reservoir silting.

Viridian has also been used to create natural flood management maps in Warwickshire and the Peak District. The modelling showed the best places to create new woodland, wetland and grassland to most reduce flooding for different degrees of investment.

### Where can I find out more?

Contact [angus@viridianlogic.com](mailto:angus@viridianlogic.com)

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