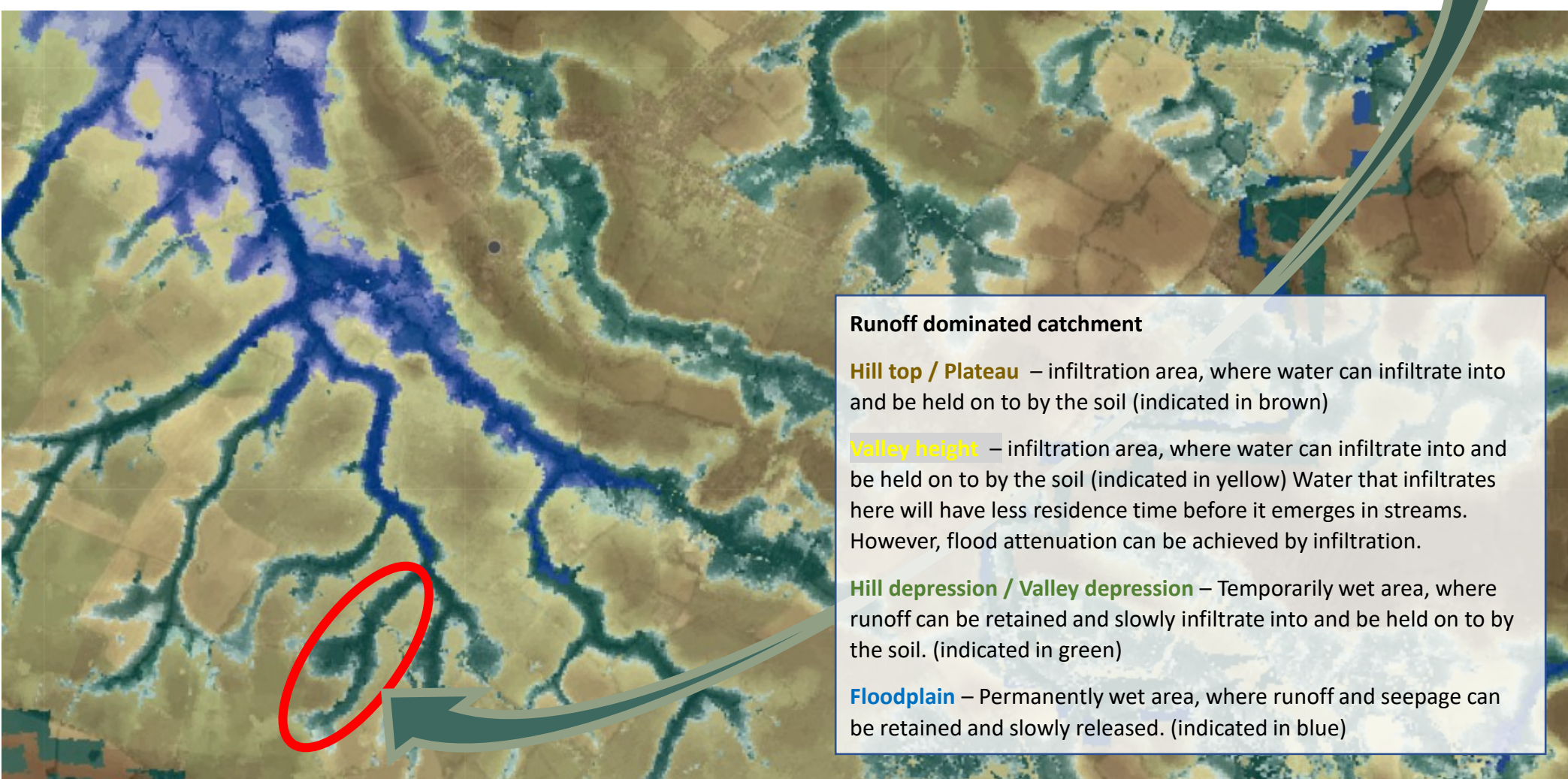


# Wetting up the Weald – Restoring seasonal wetlands for climate adaptation

## Results of changes implemented to the ‘River Beult’ site by South East Rivers Trust



The red circle indicates the location of the seasonal wetland on the water system map. The map confirms the suitability to restore previously degraded temporary wetland (with the potential for temporarily wet zones indicated in green).

### UNDERSTANDING THE CATCHMENT

On Moat Farm in the river Beult catchment, South East Rivers Trust developed the Interreg 2 Seas PROWATER demonstration site ‘River Beult’ (including sub-sites ‘Streetend Wood’ and ‘Harp Meadow’) in collaboration with the land owners. The site demonstrates how the region can adapt to the consequences of climate change through Ecosystem-based Adaptation.

The River Beult is the only riverine Site of Special Scientific Interest (SSSI) in Kent, designated for its characteristics as a clay river. The slowly permeable clay soils provide little storage capacity in the catchment. As a result, the surface water network is dense, with many areas artificially drained (through and underdrains) ditches to increase productivity of the landscape, increasing the risk of diffuse pollution from overland or drainage flow and the vulnerability to dry periods.

Wetland ecosystems are key in regulating flows and water quality, but only account for 1.3% of the catchment area.. While the wetland restoration at Moat Farm is on a relatively small scale, it demonstrates the benefits that nature-based solutions can provide in the area.

### IDENTIFYING & ENGAGING STAKEHOLDERS

The main beneficiaries that are potential buyers in schemes are water companies who directly benefit from a more resilient water supply and reduction of pollution in the watercourse, but also businesses or communities impacted by flood risk, and housing developers that could invest in biodiversity measures as part of their biodiversity net gain proposals. Sellers are mainly landowners with agricultural or woodland areas. A range of organisations are active in brokering agreements.

### PRIORITISING LOCATIONS FOR CLIMATE ADAPTATION MEASURES

Moat Farm lies at the top of the catchment, in the ‘seasonally wet’ zone of the water system map. Local runoff gives rise to a number of streams that form part of the headwaters of the river Beult.

A small catchment area (~1ha) feeds the seasonally dry, over-deep woodland channel. During flow periods, this drains water quickly out of a potential wetland, carrying sediment from a byway upstream and contributing to high flows downstream. To restore the retention function, trees were cleared around the channel to bring light in and make woody material available; 200m of the channel were filled in using clay from the site; a pond was dug and large woody debris was placed across the flow path of water. This has wetted up the woodland area, spilling water into the floodplain and transforming it into a wet woodland habitat with dense vegetation.

### MONITORING & EVALUATION

Monitoring has proved challenging due to the weather across the years being very different. Water level loggers were used to understand the peaks of flow moving through the site. A time lapse camera provides additional visual evidence of change. The increase in roughness and the wider floodplain are expected to slow flows by about half. This increases the time and volume of water stored in the area, which means that high flows are released more slowly, and more water is stored in the wetland for longer.

- FOR MORE INFORMATION:**
- [www.pro-water.eu/output-library](http://www.pro-water.eu/output-library)
  - <https://www.pro-water.eu/river-beult-uk>
  - <https://www.southeastriverstrust.org/projects/prowater-managing-landscapes-for-resilient-water-resources/>

### A cross-border cooperation

From November 2017 to March 2023, 10 partners from Flanders, the Netherlands and the United Kingdom work together on PROWATER. The project has a budget of more than 5.5 million euros. In each country, water production companies, governments and research institutes as well as land managers are involved in order to achieve a supported vision for Ecosystem-based Adaptation (EbA).

The project PROWATER receives 3.315.974 € through the Interreg 2 Seas fund, co-funded by the European Regional Development Fund (ERDF), to work on climate change adaptation and to increase resilience against droughts and extreme precipitation based on ecosystem services.

