



Geology and Soils

The underlying geology of the catchment is characterised by heavy Wealden clay, with an outcropping of Greensand and thin band of Chalk deposits forming the North Downs along the northern boundary of the catchment.

Clay soils have pros and cons when it comes to farming. The density of clay soils mean they can hold onto moisture and trap nutrients, keeping vital resources available for crop growth. However, they can become so waterlogged they deprive plants of oxygen, or so dry the ground becomes hard to dig and develops deep cracks. Farmers can work to address the shortcomings of clay by improving the soil matrix (e.g. incorporating organic composts) and/or by improving drainage with under-field structures (e.g. mole drains).

The Eden Catchment

The Eden catchment is approximately 230 km² and lies across the counties of Surrey, Kent and a small portion of West Sussex. The River Eden rises near Oxted, flowing eastward through Wealden clay to join the River Medway near Penshurst. The river is around 30 km long, narrow in width and relatively flashy.

The catchment is largely rural, with some urban areas including Oxted, Edenbridge, Godstone and Lingfield. The catchment is important for agriculture, which is the dominant land use. There is a variety of arable, dairy, beef and mixed farms (as well as others) across the area.

Importance for Drinking Water

SES Water abstract from the River Eden every autumn/winter (depending on flow), transporting water to where it is stored in Bough Beech reservoir before being treated and distributed to up to 120,000 customers across Kent, Surrey and parts of West Sussex. This equates to around 15% of SES Water's total supply, with the rest being from groundwater sources.

Drinking water companies have to comply with strict standards in the production of wholesome drinking water, therefore protecting water quality in the River Eden and its tributaries is really important.



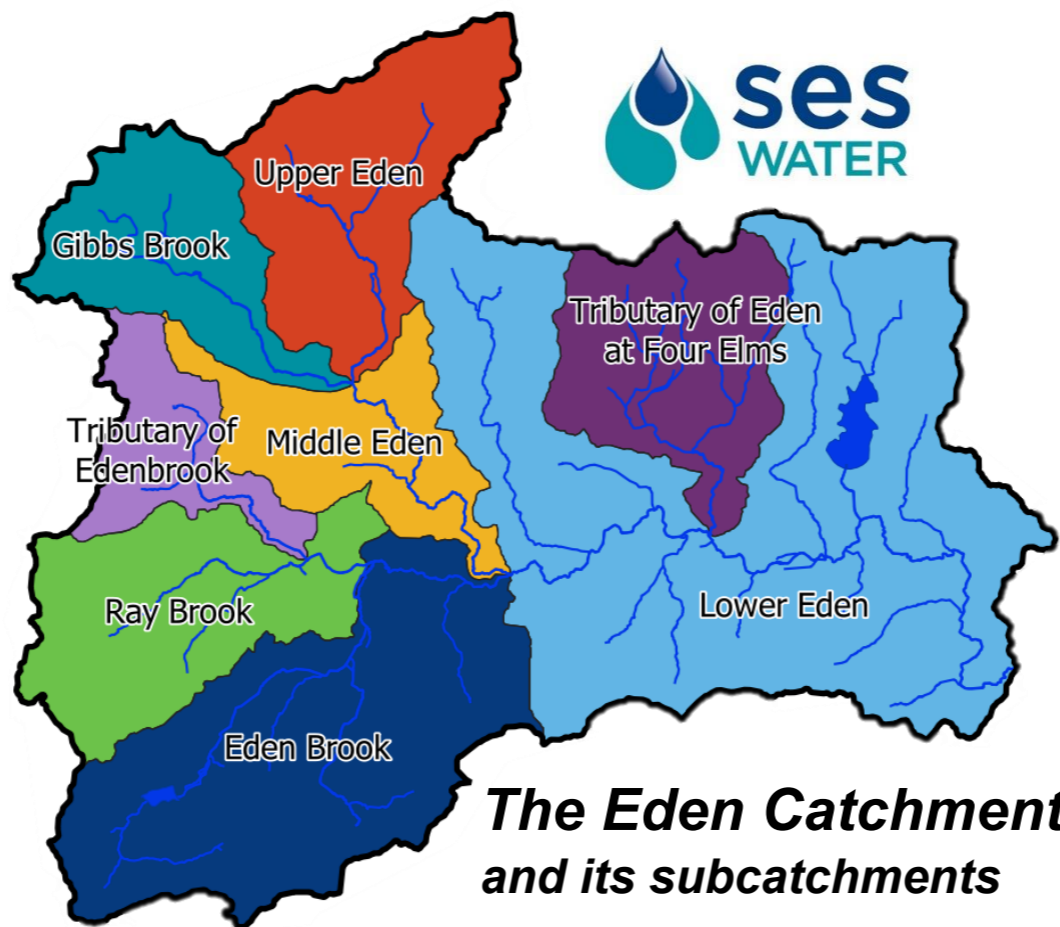
Water Quality

As an important resource for water supply, protecting water quality in the Eden is key for the production of wholesome drinking water. Being a rural catchment, the main water quality issues arise from agricultural run-off, discharges from wastewater treatment works and unsewered properties.

Under the Water Industry National Environment Programme, the following parameters are currently being targeted for improvement in the River Eden and Bough Beech reservoir:

- Pesticides: carbetamide (banned Nov 22), propyzamide, mecoprop, metaldehyde (banned Mar 22)
- Phosphate

The graph below shows the trend for propyzamide (a herbicide commonly applied to oilseed rape crops in winter) in the River Eden. Concentrations peak each winter generally above the drinking water standard. This coincides with when we are abstracting from the river to restore resources in Bough Beech reservoir after summer. We have treatment in place to ensure the drinking water we produce remains compliant; however we need to work with pesticide users in the catchment to ensure we don't overwhelm our treatment. For more water quality information and data, click [here](#).



The Eden Catchment and its subcatchments

Catchment Management

SES Water's Catchment Team work with local farmers, landowners and stakeholders to protect the quality of water at source, in ways that enhance nature and improve lives. Protecting water quality in the catchment is far more sustainable than relying on additional, energy intensive processes at the downstream treatment works.

In the Eden, we are focussing on:

- Providing support and funding for farmers (with Catchment Sensitive Farming)
- Farmer events
- Liaising with wastewater providers



Click [here](#) for more information on the support and funding that SES Water can offer to farmers and landowners in the Eden Catchment, or get in touch at catchment@seswater.co.uk

