



Eden Catchment – Water Quality Update

Autumn 2023

SES Water closely monitor water quality in the River Eden and wider catchment to ensure we can continue to treat our drinking water to the highest standard. Water quality data over the past six months for some of our key water quality issues are presented below. The sample points selected are representative of water quality within various subcatchments in the Eden. For more historical data, please see our [Spring 2023 newsletter](#).

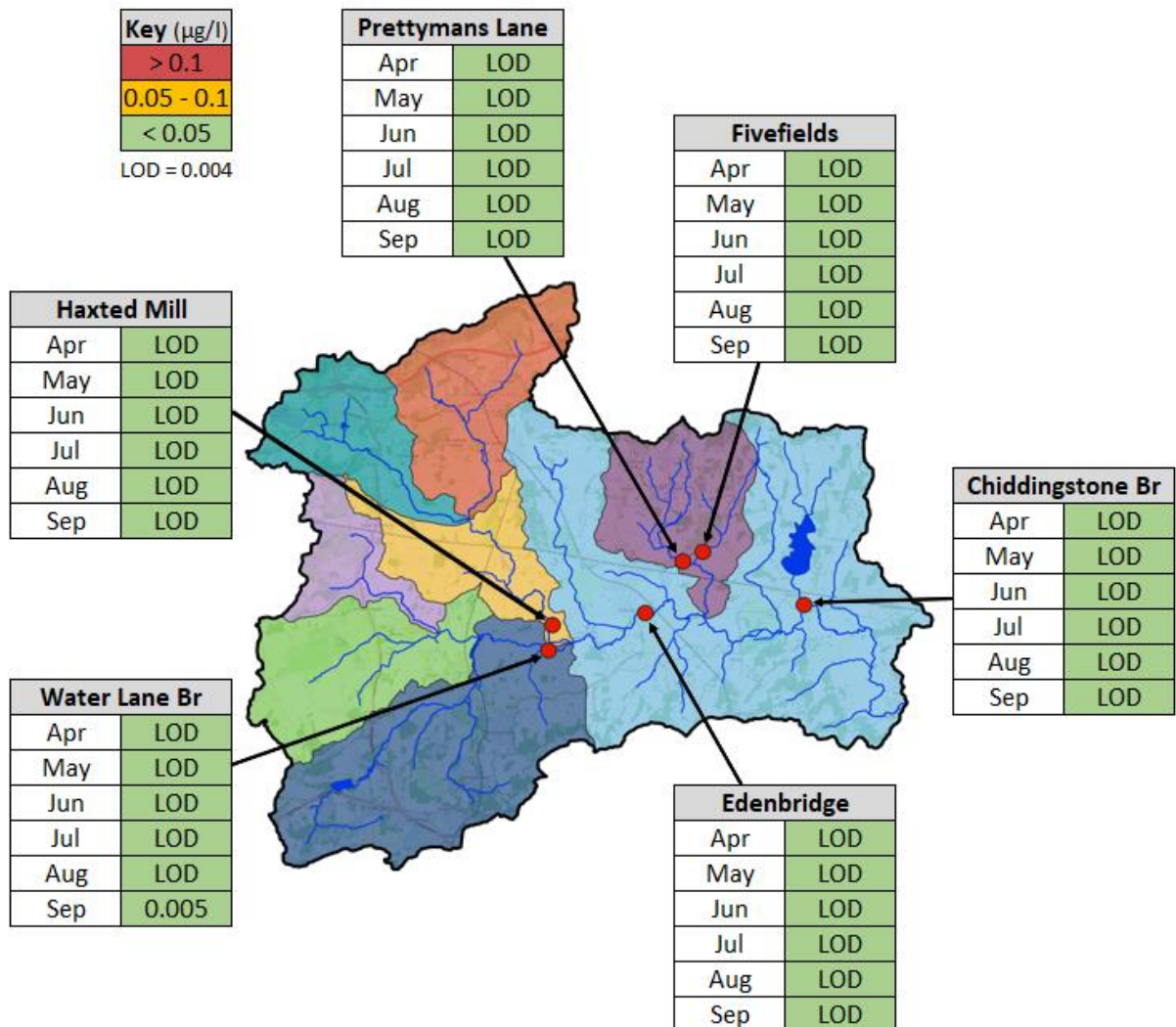
Pesticides:

In England there are strict Drinking Water Standards (DWS) to which our water must comply. For pesticides the treated drinking water must not contain more than 0.1 micrograms per litre ($\mu\text{g}/\text{l}$) of any individual pesticide (this is the equivalent of approximately 1 second in 320 years!). We have treatment in place to help reduce concentrations of pesticides in our raw water however if concentrations are too high the treatment process can be overwhelmed, which is why we're sharing this information to help raise awareness of the issue. At SES Water we monitor for over 30 different individual pesticide; here we have focused on key pesticides that are included in our Water Industry National Environment Programme and that have presented the water company with a challenge either currently, or in the past. All results are recorded in micrograms per litre ($\mu\text{g}/\text{l}$). Each active has its own limit of detection (LOD), where concentrations are below the limit our laboratory can reliably analyse.

Carbetamide (used to control grasses and some broad-leaved weeds in oilseed rape, trade names include: Crawler, Carbetamex, Legurame)

- Withdrawn from use in November 2022, all results have been at or near the limit of detection in the catchment over this period. We anticipate this to continue going into future seasons.

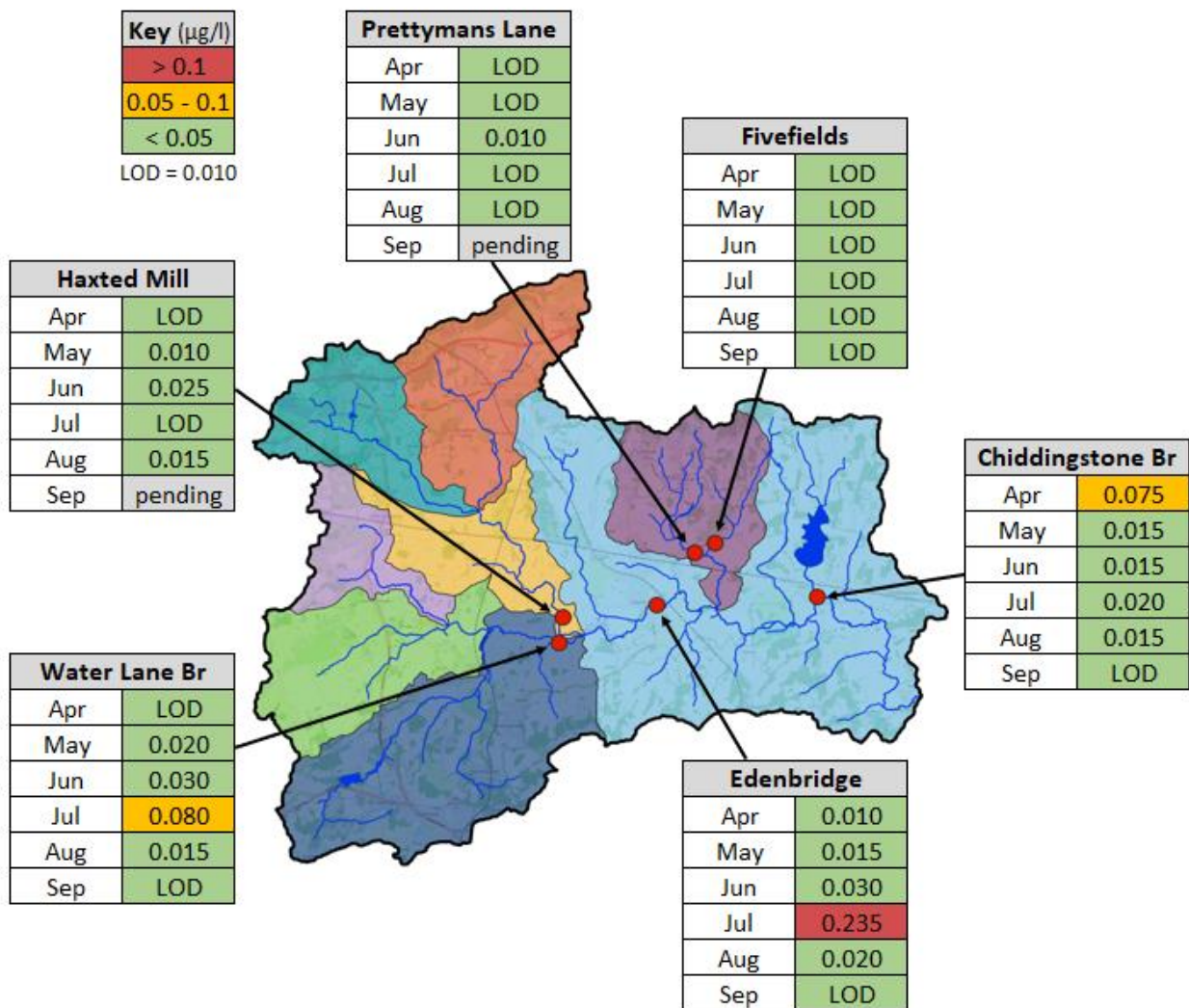
Maximum Carbetamide Concentrations: 2023



Mecoprop/Mecoprop-P (commonly used to control broad-leaved weeds in lawns and cereals, trade names include: Compitox Plus, Optica, Prompt, Foundation, Relay)

- Fortunately for SES Water, the highest concentrations of mecoprop in the river are often observed over summer months, when we are not abstracting from the river into Bough Beech reservoir. This season has followed this same trend, with the highest concentrations in the catchment detected at Edenbridge in July.

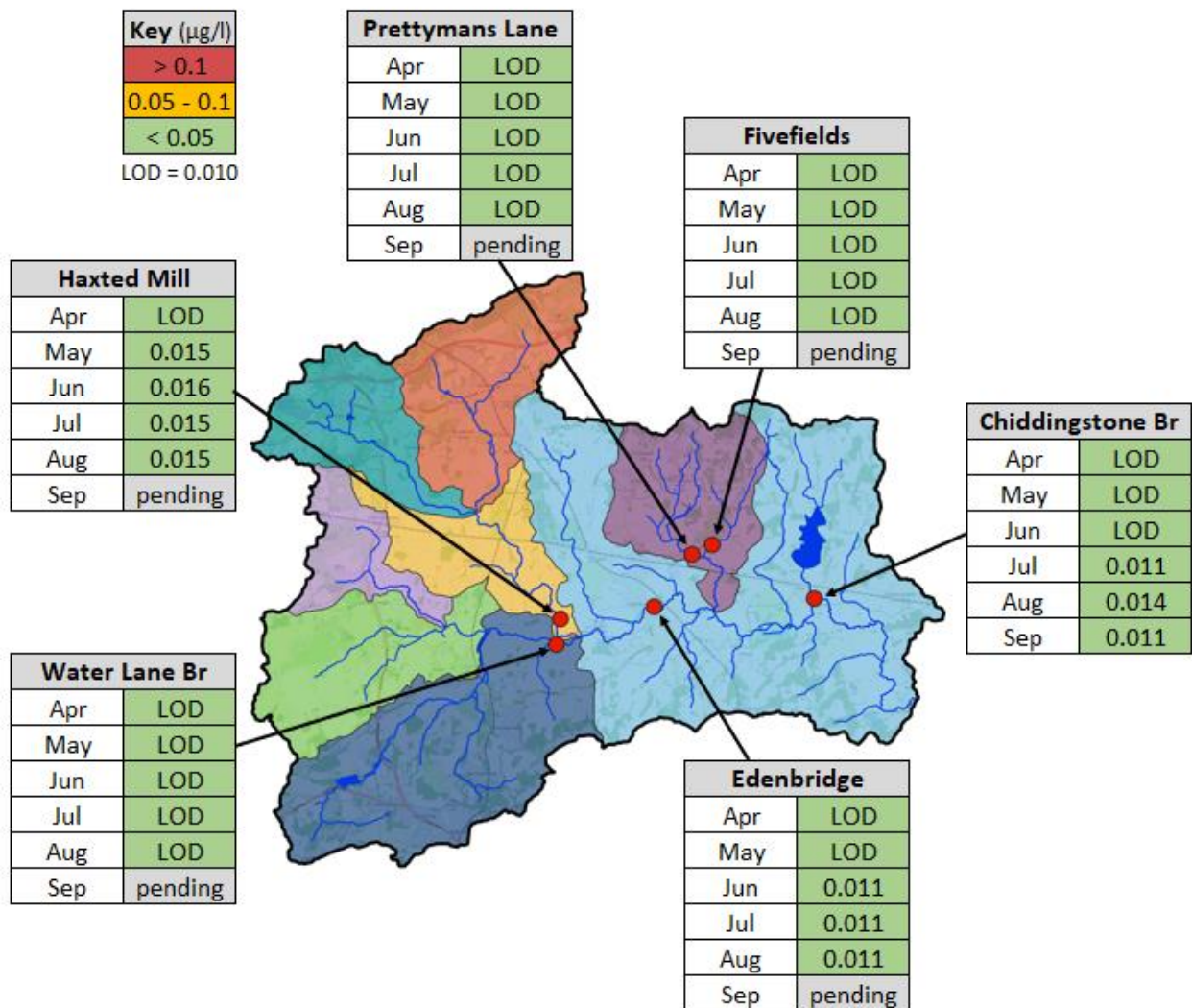
Maximum Mecoprop Concentrations: 2023



Metaldehyde (used for control of slugs and snails)

- Metaldehyde has historically been problematic for water companies across the UK as it is extremely difficult to remove, even with advanced treatment technologies. The product was banned in March 2022 and since then, no or very low concentrations have been detected in the catchment. We suspect the low concentrations we are detecting are linked with domestic use.

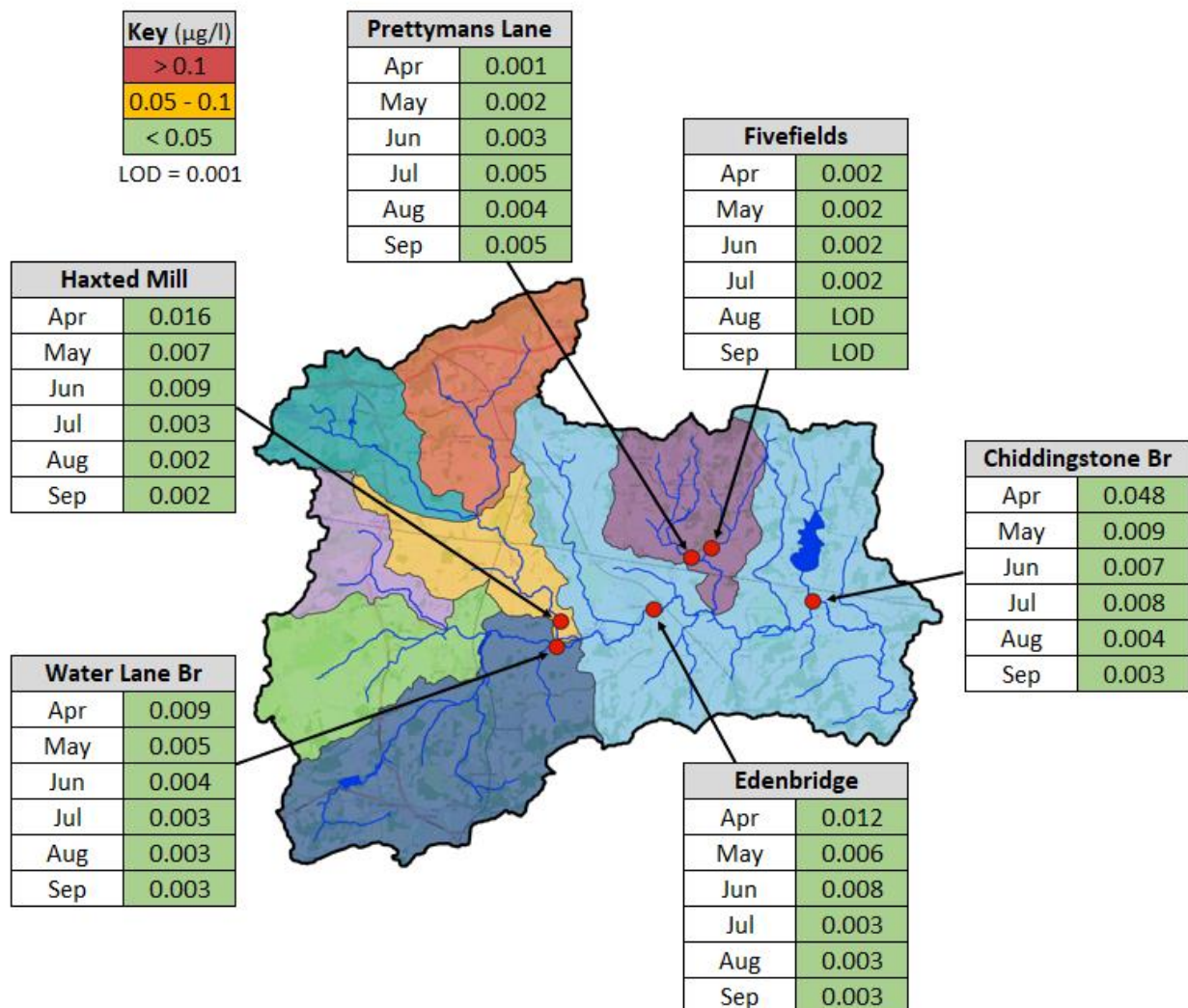
Maximum Metaldehyde Concentrations: 2023



Propyzamide (an important herbicide for the control of grasses in oilseed rape, trade names include: Kerb flo 500, Astrokerb)

- Propyzamide is a key focus for SES Water, partly following the withdrawal of carbetamide in 2022, but also because we appreciate it is a very valuable active in local farmers' arsenal. It is important that it is used responsibly to protect this product and help ensure it remains available for use. Elevated concentrations are detected in the winter months when the product is applied to cold, moist soil, and before the cut-off date for application of 31 January. As expected, no or very low concentrations of propyzamide were detected in the catchment over the summer period. We will continue to monitor propyzamide closely as we go into the winter and next oilseed rape growing season.

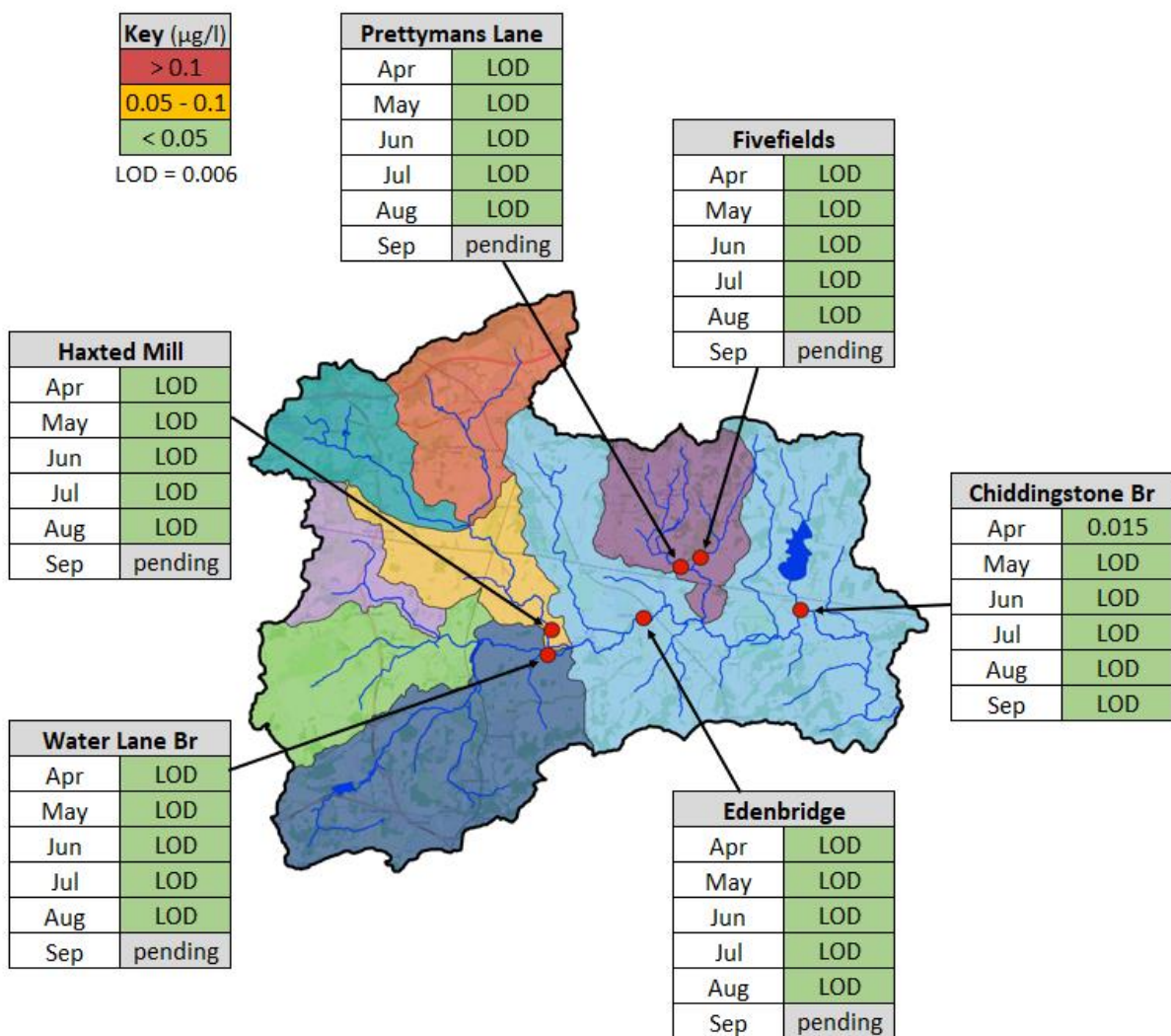
Maximum Propyzamide Concentrations: 2023



Flufenacet (used for the control of grasses and broad-leaved weeds in various crops including winter wheat and winter barley, trade names include: Liberator, Shooter, Firebird)

- Recognised as an emerging risk in the Eden catchment, peak concentrations are often detected in October/November. As drilling of winter wheat has begun, we are monitoring flufenacet more closely in the catchment, particularly as abstraction is due to commence once river flows are sufficient.

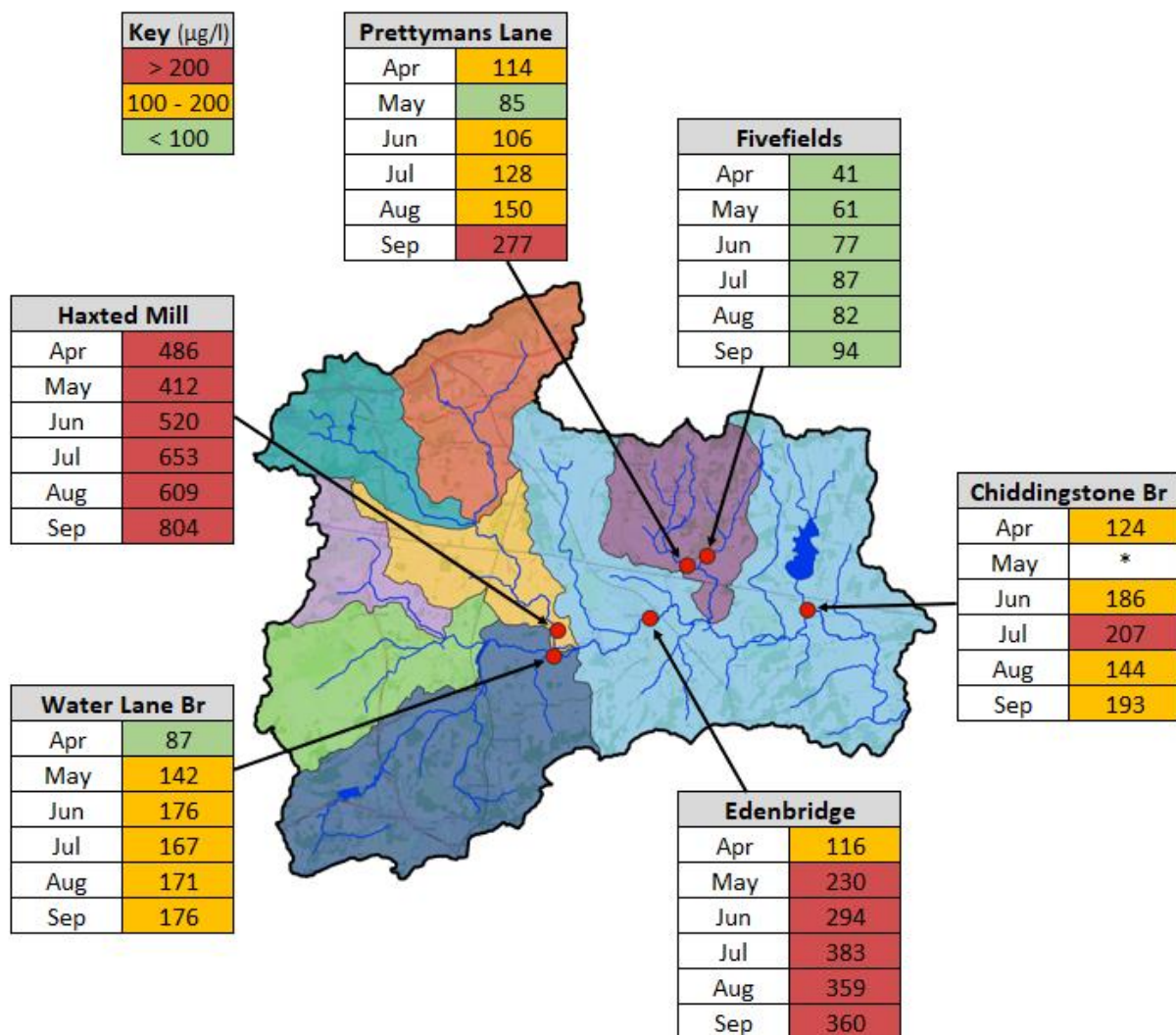
Maximum Flufenacet Concentrations: 2023



Phosphate:

There is no specific drinking water standard for phosphate, however the presence of phosphate in the river (and Bough Beech reservoir) can promote algal and cyanobacterial growth which can have a detrimental impact on the environment and can also pose a challenge in the treatment of drinking water. There are Water Framework Directive targets in place for all waterbodies across England and Wales to reach good ecological and surface water chemical status and to progressively reduce pollution. Investigations by SES Water suggest that wastewater treatment works (WwTW) discharges are the primary source of phosphate in the Eden, however agricultural sources and unsewered properties can also contribute. Concentrations can often be higher over summer months when there is less flow to dilute WwTW discharges. We are engaged with the local wastewater provider and are also working to help reduce agricultural and unsewered property inputs.

Maximum Phosphate Concentrations: 2023



* no data available for this month