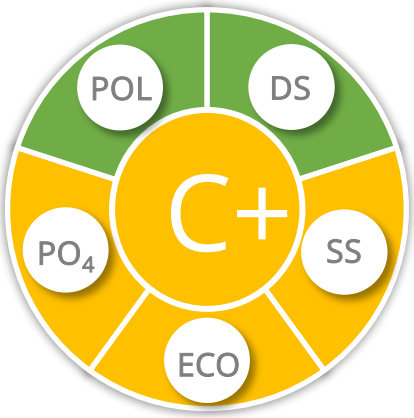
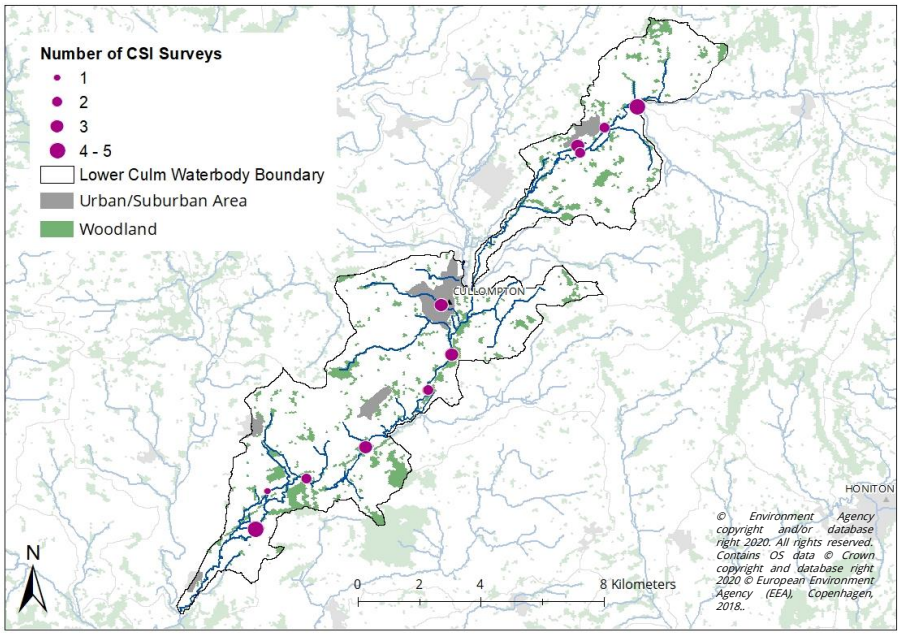
Westcountry CSI Scorecard 2020
Lower Culm, East Devon



River Health Scale

A	Excellent
B	Good
C	Fair
D	Poor
E	Very Poor

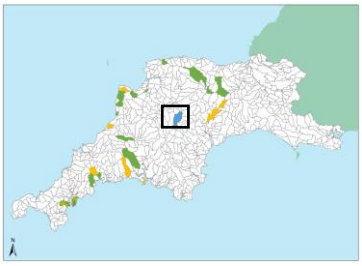
The overall score for the catchment is based on a year's data, collected at all sites in the Lower Culm waterbody. It is calculated from the observations and water quality results attained during a Westcountry Citizen Science Investigation (CSI) survey. A waterbody has to have at least 12 samples taken over the year for it to qualify for a scorecard.



LOWER CULM 2020

57%

Overall grade



Westcountry C.S.I.
Citizen Science Investigations

DS **Dissolved Solids** are measured using a handheld TDS meter. DS increase as a result of natural and anthropogenic inputs of things like chemicals, slurry, sewage or salts into the waterbody.

SS **Suspended Solids** or **Turbidity** is measured using a turbidity tube. SS increase as a result of increased soil erosion, mine discharge and road runoff. An increase in SS reduces water clarity, making it difficult for aquatic organisms to survive.

POL The **Pollution** score is calculated from the observations of pollution sources and evidence of recent pollution (e.g. litter or oil). These give an indication of the pollution pressures on that watercourse.

ECO The **Ecology** score is calculated from wildlife and problem plants spotted. Wildlife spotted near a river, indicates that the river is supporting a healthy food chain. Problem plants reduce this score as they can cause issues for the biodiversity of the watercourse by shading out other plant species.

PO_4 **Phosphate** (PO_4) is a vital nutrient for the healthy growth of all organisms and is found in natural and artificial fertilisers, sewage and industrial wastes. Natural levels are very low and thus any measurable phosphate observed is likely due to anthropogenic influences such as misconnections, farm runoff or industrial discharge. PO_4 is measured using strips which turn blue in the presence of phosphate.

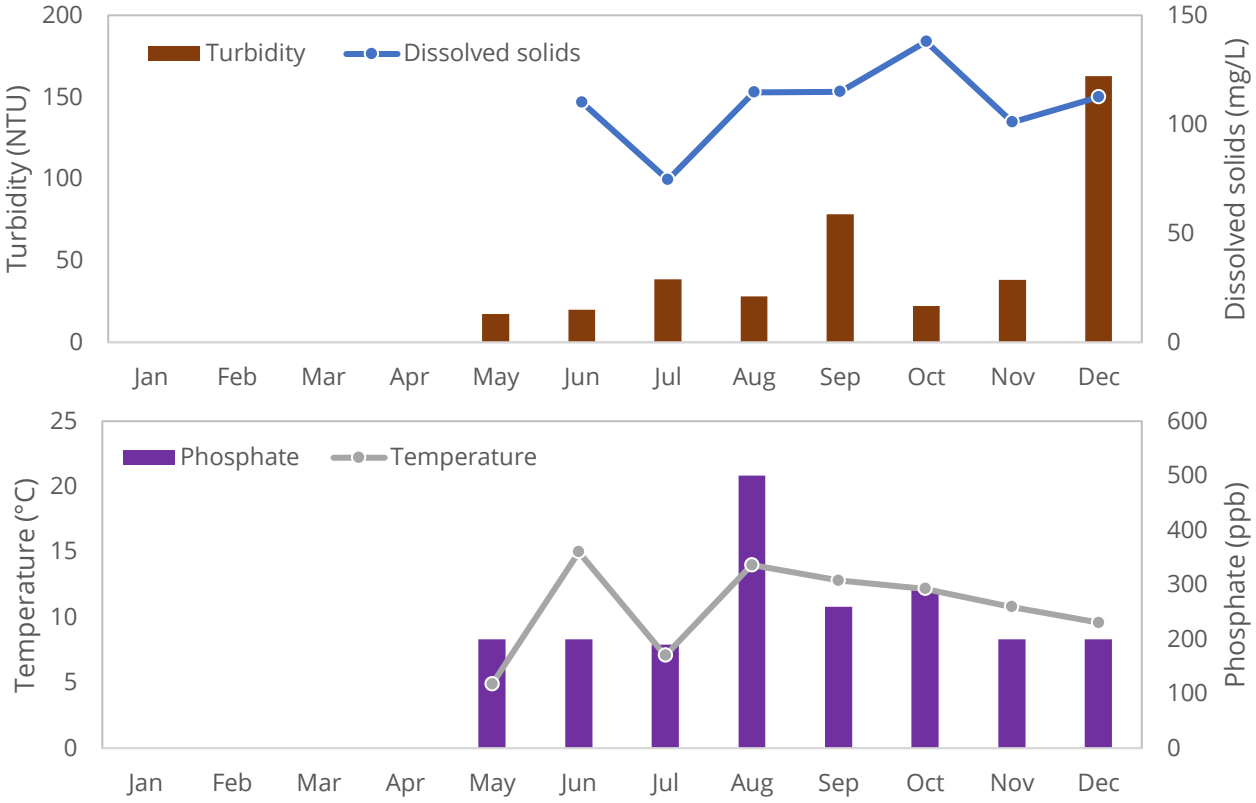
Catchment Summary

The Lower Culm waterbody is located in **East Devon** with its main centre of population being Cullompton. There are ten sample points and eight active samplers in this waterbody, with **31** Westcountry CSI surveys taken in total during 2020.

The predominant land use within 50m of these sites is **grassland or pasture** (65%) and **agriculture** (52%). **Urban residential** and **parkland/gardens** both occurred 26% of the time. The majority bankside ecosystem is **trees or shrubs** (77%) or **grass** (58%).

There have been frequent siting of **Himalayan Balsam** (32%) which is an invasive non-native plant. It can easily take over a riverbank, reduce biodiversity and compromise bank stability. **Dragonflies/damselflies** (6%), **fish** (13%), a **Heron** (3%), **aquatic invertebrates** and multiple species of **bird** have been spotted during surveys along the Lower Culm.

Water Quality Test Results



How to Use This Scorecard

The Westcountry CSI scorecards are produced to visualise the data collected by the volunteers across the Westcountry and to give an idea of the health of our rivers and streams. Due to the nature of the scheme there are gaps in the data and it should be noted that none of the sites across the catchment were sampled more than 12 times. This is partly due to the COVID 19 lockdown restrictions at the start of the year.

Become a Westcountry Citizen Science Investigator!

Join Westcountry CSI and help to monitor a river or stream in your local area. To find out more and get in touch, visit our website: wrt.org.uk/project/become-a-citizen-scientist/ or email us at csi@wrt.org.uk.

About Westcountry Rivers Trust

The Westcountry Rivers Trust is an environmental charity (Charity no. 1135007, Company no. 06545646) established in 1995 to secure the preservation, protection, development and improvement of the rivers, streams, watercourses and water impoundments in the Westcountry and to advance the education of the public in the management of water.

Connecting the Culm