

Update on the Condition of the River Lugg SSSI

Natural England – 2026



Natural England has recently completed an updated condition assessment of the River Lugg Site of Special Scientific Interest (SSSI). This river is nationally important for its diverse aquatic plant communities and the habitats it provides for wildlife such as otter.

The assessment brings together over 40 years of monitoring data, alongside new field surveys completed in 2025. It considers river flow, water quality, habitat condition and wildlife, and how land use across the catchment is influencing the river today.

Key Findings

- **The river supports diverse and important wildlife**, including nationally scarce invertebrates and a widespread otter population.
- **River flows are generally near natural**, abstractions and discharges are compliant with flow conservation targets.
- **Nutrient levels (phosphorus) are too high across the whole catchment**; targets are exceeded at all monitoring sites and phosphate concentrations have increased in the upper and middle catchment over the past fifteen years.
- **Sections of the river have been historically modified (1950's – 1980's)**, especially around and downstream of Leominster, including dredging, straightening, and embankment.
- **Fine sediment (silt) is widespread**, particularly in the middle and lower river.
- **Aquatic plants show signs of nutrient stress**, with increased algal growth and changes in species composition. **Invasive species** including Himalayan Balsam & Signal Crayfish exacerbate existing pressures.



Pristine reach near Aymestrey. The river here is connected to its floodplain & displays classic run-riffle-pool habitat.

Overall, the River Lugg SSSI is in an Unfavourable – Declining condition.

While parts of the river remain in good condition and retain high ecological value, a number of pressures are affecting the river's ability to function as a healthy resilient system.

Why This Matters

Rivers rely on a balance of clean water, natural flows, and varied habitat to support wildlife. When nutrients and sediment enter the river in excess, they can:

- Encourage excessive algal growth
- Smother gravels used by fish and insects
- Reduce water clarity and plant diversity

Over time, these impacts reduce the health and resilience of the river, making it more vulnerable to other pressures.



The River Lugg near Leominster has been historically dredged, resulting in slower flows, siltation and high filamentous algae cover.

Climate Change Risk

The River Lugg is vulnerable to a changing climate. Hotter, drier summers are likely to reduce flows and increase water temperatures, while heavier rainfall events can increase runoff of soil and nutrients into the river. These changes amplify existing pressures.

How Land Management Can Help

Improving the river now depends on coordinated action by landowners and statutory bodies working together. There are many practical actions that can make a meaningful difference:

Reducing Nutrient Loss

- Match nutrient applications to crop and soil requirements through regular soil testing and nutrient management planning.
- Reduce phosphorus surpluses by balancing nutrient inputs and outputs across the farm.
- Store, transport and apply manures & anaerobic digestate responsibly, ensuring nutrients are used where they are needed and do not accumulate on already nutrient-rich land.

Limiting Sediment Runoff

- Maintain good soil structure and year-round cover, particularly on vulnerable soils and slopes.
- Reduce cultivation of high-risk crops, including maize and potatoes, on steep slopes and fields prone to erosion.
- Reduce poaching and erosion from livestock access to rivers and streams.

Improving Riverside Habitat

- Create wildlife corridors alongside watercourses
- Plant and manage trees where cover is lacking to provide shade and bank stability
- Reduce intensive land use directly adjacent to the river

Supporting Natural River Processes

- Where possible, allow the river space to reconnect with its floodplain
- Remove or adapt in-channel structures such as weirs where feasible

Managing Invasive Species

- Control Himalayan balsam
- Support coordinated catchment-scale control efforts

Working Together

The River Lugg remains a valuable and ecologically important river.

Many of the actions outlined above can be supported through agri-environment schemes and other funding opportunities, helping to balance environmental improvements with productive land use.

Natural England, the Environment Agency and partners are committed to working with landowners to support these changes.

Contact Natural England to discuss opportunities for working together:
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