

Eastern England is one of the UK's driest and most water-stressed regions – yet it is also encompasses some of the country's most productive farmland.

Much of the nation's potatoes, salads, vegetables and soft fruit are produced here. Increasingly, however, the future of that production depends on one thing: water.

Recent droughts in 2018, 2022 and again in 2025 highlighted just how vulnerable many farming businesses are to restrictions on summer abstraction. At the same time, environmental pressures on rivers, wetlands and groundwater are intensifying.

Regulators are also under increasing pressure to restore river flows and protect sensitive habitats. Future abstraction reductions linked to Environmental Destination targets are likely to affect many catchments across the east of England.

Investment

Against this background, farm reservoirs are no longer simply an optional investment for a few specialist growers. For many businesses, they are becoming central to future resilience.

Reservoir storage allows water to be captured during wetter winter periods and used later in the growing season when crops need it most. This reduces dependence on summer abstraction, improves supply reliability and helps protect environmentally sensitive rivers during low-flow periods. It also gives growers greater confidence when planning future cropping, investment and market supply.

Importantly, reservoirs are not just about drought protection. They are increasingly part of wider water management strategies linked to flood management, environmental enhancement and collaboration between neighbouring farms.

Farm reservoirs: from optional to essential



EXPERT VIEW

More farmers are investing in winter water storage to protect future crops production and business resilience, says **Melvyn Kay**.

Integration

Across the Fens and other lowland areas, opportunities are emerging to integrate reservoirs into existing drainage systems managed by Internal Drainage Boards (IDBs). Large volumes of winter water are already moved through these networks and often discharged to sea. Capturing and storing a proportion of this water could provide significant benefits for agriculture while reducing pressure on summer abstraction.

There is also growing interest in shared storage schemes. The Lincoln Water Transfer model has demonstrated how groups of farmers can work together to improve the efficiency of water use through shared infrastructure and coordinated management. In Norfolk, Heronhill LLP has developed collaborative reservoir storage to spread both investment costs and long-term resilience across participating businesses.

Benefits

The benefits of storage were clearly demonstrated during the 2022 drought. While many irrigators faced severe restrictions and crop losses, businesses with adequate

winter storage were generally able to maintain supply, protecting both crop quality and farm income.

However, building a reservoir is not straightforward. Costs are significant, permissions can be complex and poorly planned schemes can quickly become delayed or uneconomic. Success depends on taking the right approach from the start.

The first step is understanding future water need. Reservoirs should be designed around the "dry year", not the average year. Feasibility work is then needed to assess whether sufficient winter water is likely to be available and whether the chosen site is technically, environmentally and economically suitable.

Red tape

Planning and environmental considerations are increasingly important, particularly in sensitive landscapes. Reservoirs in National Landscapes and near designated habitats can still be approved, but careful siting, design and environmental integration are essential. Increasingly, well-designed reservoirs are being shaped to work with the landscape, support biodiversity and enhance habitat value rather than detract from it.

To help farmers navigate these issues, two new practical guides on farm reservoir planning and design have recently been produced with support from Water Resources East and the Suffolk & Essex Coast & Heaths and Dedham Vale National Landscapes (see panel).

The publications also include case studies from across Eastern England, demonstrating how farmers are already adapting their businesses to increasing water pressures through investment in storage.

The reality is that future agricultural resilience in Eastern England will increasingly depend on moving from direct summer abstraction towards managed winter storage. Reservoirs are therefore becoming not simply an engineering project, but a long-term business strategy.

Melvyn Kay is executive secretary of the UK Irrigation Association. Both guides can be downloaded free from www.ukia.org and wre.org.uk.



The guides provide straightforward, farmer-focused advice covering:

- Assessing water need and feasibility
- Choosing suitable sites
- Permissions and abstraction licensing
- Environmental and landscape considerations
- Reservoir construction and operation
- Investment costs and collaboration opportunities.