



Water Resources East draft Regional Water Resources Plan for Eastern England

Water Resources East Consultation

Date: 20 February 2023

Introduction

1. The Country Land and Business Association (CLA) is the membership organisation for owners of land, property and businesses in rural England and Wales. Our 27,000 members own or manage around half the rural land in England and Wales and more than 250 different types of businesses. They have a long-term interest in rural communities and the environment in which they live. Their businesses are often at the foundation of the local economy by providing homes, jobs, employment space and services to local communities.
2. The CLA welcomes the opportunity to respond to the consultation published by Water Resources East (WRE) on its draft Regional Water Resources Plan for Eastern England.

Key points

3. WRE should quantify future agricultural water needs and deficits at a catchment scale as an urgent priority.
4. The CLA has grave reservations about the implications for agriculture if WRE follows the 'Enhance' environmental destination without safeguards for maintaining and growing food security.
5. Demand-side savings should derive from the public water supply rather than agricultural abstraction licences.
6. Water companies in WRE should do far more to reduce leakage, and at least match the National Framework for Water Resources ambition for 50% leakage reduction by 2050.
7. Temporary Use Bans should be retained as a valuable option to manage public water supply demand during droughts.
8. On-farm reservoirs are short-term, low-regret supply-side options with multiple benefits; the final plan should prioritise them.

9. Nature-based Solutions have huge potential to store water and manage river flows on land CLA members own and manage.
10. The CLA would like to see more investment in smaller, more agile supply-side solutions which can become operational quickly.
11. WRE should publish easily accessible data about its final plan to support businesses' investment decisions.

Response

Question 1: Have we presented credible projections of future water needs and deficits across all sectors and the environment?

12. The draft plan presents a wide range of future scenarios of water needs for agricultural irrigation – between 264 and 479 million litres per day by 2050. The CLA is unable to comment on technical aspects of the projections, though we accept that multiple uncertainties may preclude more precisely constraining this projection.
13. The CLA is concerned that the final plans lack detailed modelling of future agricultural water needs and deficits at a catchment scale. WRE should invest in research to determine how much more water will be needed by 2050 in individual catchments to (i) maintain current agricultural and horticultural production and (ii) to increase horticultural production in line with the government's Food Strategy (2022) goals.
14. Catchment-scale modelling of agricultural and horticultural demand would have numerous benefits within the WRE planning process. It would:
 - mitigate against the uncertainty created by “the potential changes to licences [which] are not yet known and understood by the agrifood sector and [which] restricts the sector’s ability to plan for the changes required”;
 - provide the evidence base for agricultural abstractors to make investment decisions in on-farm water storage schemes, like reservoirs;
 - provide an evidence base to coordinate collaborative infrastructure projects, such as pumping water inland from river mouths into farm reservoirs;
 - highlight future abstraction conflicts, to enable time for investment in on-farm water storage;
 - help government and other funders to target grant funding to the most water-stressed catchments.

15. Adequate funding needs to be secured so that WRE can undertake this modelling and incorporate it into its final plan. Further iterations of this modelling should then be undertaken within the plan's proposed research period 2025-2030. Under Question 6, we outline our proposed funding mechanism: re-interpreting OfWAT's prohibition on using billpayer revenue for non-public water supply research to reflect how landscape-scale water management lies within the parameters of billpayer interest.
16. The draft plan does not quantify how much water will be needed by 2050 to rewet peat to reduce carbon emissions. In principle, the CLA supports the need to rewet peat, provided that national horticultural production can be maintained. We suggest that the final plan should quantify the volume of water required to rewet lowland peat (notwithstanding large uncertainties) and how this would affect overall water deficits.

Question 2: Do you support WRE's ambition to achieve the outcomes associated with the 'Enhance' Environmental Destination scenario by 2050?

17. The CLA supports the need to restore river flows and water tables to levels consistent with environmental and agricultural needs. We welcome environmental health being prioritised in the draft plan. CLA members are increasingly aware of the need to improve and consolidate the health of the water environment, and our membership includes those whose businesses rely on tourism linked to the water environment.
18. However, the burden of returning water to the environment must be managed fairly, proportionately, and in ways that support food production. The East contains a large fraction of the UK's highest-quality agricultural land. Water security is critical to current and future fruit and vegetable production, and it also determines investment in the horticultural sector. If WRE follows the 'Enhance' scenario for Environmental Destination, the CLA believes that water companies must bear a larger proportion of the burden of returning water to the environment, in order to safeguard food security. Crops have minimum water requirements and if these are not met, production will shift abroad – imposing additional costs on British consumers and offshoring water demand to more water-insecure areas.
19. The CLA notes with concern that, according to the draft plan, achieving an 'Enhance' scenario for agriculture could reduce licences by more than 60% in North Norfolk and Essex, and by 40-60% in East Suffolk, North West Norfolk, the Cam and Ely Ouse, the Broadland Rivers, and the Louth, Grimsby and Ancholme. Such drastic reductions are unlikely to allow current growers to maintain production, which would be extremely detrimental to national fruit and vegetable production, a sector with low UK self-sufficiency. Additionally, many agricultural abstractors will need to abstract more water than they have historically used to continue production under climate change. Expanding horticultural production in line with the government's Food Strategy (2022) will require further increases in abstraction.

20. Consequently, the CLA has grave reservations about the implications for agriculture if WRE follows the 'Enhance' Environmental Destination without safeguards for maintaining food security. Uncertainty surrounding future water availability for agriculture will dampen investment now, when it is most needed to construct on-farm reservoirs. Licence revocations or contractions will severely impact fruit and vegetable production, even they achieve short-term return of water to the environment.
21. Abstraction licences are valuable business assets and essential to business function. The CLA is arguing for compensation to be paid for licence revocations and reductions. We urge WRE to support the need for compensation, particularly if WRE decides to follow an 'Enhance' Environmental Destination.

Question 3: Have we taken the right approach to identifying potential solutions to mitigate the projected deficits?

22. To return more water to the environment, the WRE plan focuses on capping, and possibly reducing, current abstraction licences, in line with Environment Agency policy. Whilst the CLA acknowledges that it may be environmentally unsustainable for farmers and growers to maintain current peak-summer levels of abstraction, we believe that demand-side savings should derive primarily from the public water supply. Reducing agricultural licences as a strategy to managing water deficits does not consider how crop output may change as a result. Crops have minimum water requirements, and if these cannot be supplied, cropping patterns will change. Hence, the public water supply should bear the lion's share of responsibility for reducing demand.
23. Solutions for agriculture proposed in the plan include "water efficiency, rainwater harvesting, bilateral agreements with water companies for access to the public water supply and/or treated effluent, and investment in new on-farm storage reservoirs". The CLA notes that water from the public water supply is significantly more expensive than water privately abstracted, and will be unviable for growing many crops unless farmers and growers can access it at cheaper rates. Efficient irrigation technology, such as drip irrigation, is unviable for many crops at current farm-gate crop prices. Under Question 5, we argue that on-farm storage reservoirs should be prioritised.
24. According to the draft plan, desalination is the main scalable supply-side option to mitigate deficits associated with the 'Enhance' scenario. Given the energy requirements for desalination, the CLA believes that desalination should only be undertaken when plentiful renewable energy is available to minimise the contribution of desalination plants to climate change. The concentrated saline solution which desalination produces requires careful disposal to minimise ecological harm. WRE should undertake very careful cost-benefit analysis before constructing expensive desalination plants.
25. The CLA would prefer to see investment prioritised in more agile, innovative supply-side solutions which can become operational far more quickly. For instance, the Felixstowe Hydrocycle project transfers water upstream from the coastal output of the Kingsfleet, East Suffolk, to farm storage reservoirs. The project protects valuable coastal saltmarsh,

recycles water otherwise lost from the landscape, and helps recharge the underlying aquifer, in addition to facilitating summer crop irrigation. A similar set-up could be replicated at relatively low cost across the east coast of England. WRE's final plan should emphasise this kind of low-cost, supply-side option to utilise the vast quantities of water that discharge into the North Sea, and allocate funding towards their construction.

Question 4: Does our proposed plan strike the right balance between demand and supply-side options for the public water supply?

26. Without clarity on Environment Agency abstraction licence changes for farmers and growers, it is hard for the CLA to judge whether the proposed plan strikes the right balance between supply- and demand-side options for the public water supply to help mitigate the burden on other sectors.
27. The CLA firmly believes that water companies in the WRE group should do far more to reduce leakage than their current scenario of 16% leakage reduction over 27 years. At the very least, water companies should match the ambition in the National Framework for Water Resources for 50% leakage reduction (relative to 2017/18). Ideally, water companies should exceed this national target. Water companies in the East should not rest on their laurels, even if they currently have the lowest leakage rates in England. Investment in new pipe infrastructure and repairs is a critical factor in reducing demand. Additionally, if water companies invested in reducing their pollution of watercourses, farmers may need to develop fewer new water supplies to ensure clean water for irrigation.
28. A second area where the CLA feels that the draft plan does not strike the right balance on supply and demand is Temporary Use Bans (TUBs). The current plan seeks to minimise the imposition of TUBs. However, we regard TUBs as a valuable option that the public water supply can implement to ease the pressure on other abstractors with less flexibility in their water needs during drought situations. TUBs can protect aquatic species with a minimum water requirement for reproduction and crop plants which have minimum water needs for survival. It is the CLA view that TUBs should be applied to domestic consumers before Section 57 bans on spray irrigation are applied to the agricultural sector. Therefore, we would like to see the final plan acknowledge the benefit of TUBs.
29. The CLA encourages WRE to view water for food production as an essential use of water during drought situations, even though the Water Resources Act (1991) does not view water for agriculture in this light.
30. On the demand side:
 - Demand-side reductions need to be made accessible to households, particularly in rural areas, through financial and technical support for smart metering and retrofitting buildings, like subsidised retrofits and free smart meters. This support should extend to private water supplies as well as the public water supply.

- Educating household consumers about how to conserve water and why this is important should be included within the final plan.
- Building regulations for new developments should mandate grey water recycling and use.
- We support the government's mandatory water labelling on white consumer goods, which will allow our members to make more sustainable investments in both their homes and businesses.

31. WRE should note that private water suppliers have a legal duty to provide continuity of supply, which may affect their ability to compel demand-side water reductions.

Question 5: Does our proposed plan include the right low-regret supply-side options in the short, medium and long-term?

32. The CLA is pleased that the draft plan recognises the contribution which on-farm water storage can make to agricultural water security. On-farm storage reservoirs are among the supply-side options with the fewest regrets, particularly in the East. On-farm reservoirs provide the following benefits across the short, medium and long-term:

- They allow water for summer irrigation to be abstracted during high flow periods, which means more water can remain in the environment during low-flow conditions.
- Abstraction during high-flow conditions to fill reservoirs reduces river discharges, providing important flooding mitigation for downstream communities.
- They strengthen national food security by ensuring farmers have enough water for summer crop irrigation and watering livestock.
- Water stored in on-farm reservoirs can be discharged into watercourses like chalk streams during low flow to improve their ecological health.

33. In the CLA's view, the draft plan does not advocate strongly enough for on-farm reservoir creation as a low-regrets supply-side option that can be constructed in the short-term. Currently, farmers and growers face numerous barriers to constructing these reservoirs. Planning permission, an abstraction licence, and grant funding must all come together before reservoir construction can proceed, but many of our members are struggling with hold-ups on one or more of these elements. Any delay is likely to increase the cost of the reservoir and make it unviable. The incoming Environmental Permitting Regime, which is set to guarantee licenced abstraction volumes for only six years, further disincentivises reservoir construction.

34. In the final plan, the CLA urges WRE to acknowledge the value of on-farm reservoirs, the difficulties hindering their constructions, the solutions available. Solutions include increasing Defra grant funding to 60% of costs; capital allowances for materials; and streamlining the regulatory approval processes for abstraction licences, planning permission, and grant funding.
35. Beyond on-farm reservoirs, land under agricultural management has huge potential to store water through Nature-based Solutions involving ditches, soils, woodlands, and wetlands. For instance:
- restoring meanders on straightened rivers means they hold more water and flow more slowly, creating a mosaic of habitats;
 - leaky dams store more water in rivers and discharge water more slowly;
 - regenerative agriculture improves soil health, allowing a greater volume of water to infiltrate into soil and be stored in its structure;
 - cover cropping, no-plough agriculture, wooded areas, and bunds all slow overland flow and facilitate water infiltration into soils and groundwater;
 - well-managed swales and ditches can hold large quantities of water;
 - water from Nature-based Solutions can be used to recharge aquifers locally, with benefits to groundwater abstractors and local river flows.
36. WRE's final plan should recognise the contribution of on-farm Nature-based Solutions and advocate for them as low-cost, holistic options which can reduce costs to water companies, particularly if adopted at a catchment scale.
37. Additionally, the CLA believe that focus should be given to smaller supply-side infrastructure that can come online much more quickly than big infrastructure schemes, such as:
- pumps and pipelines to abstract water at river mouths and either store it in on-farm reservoirs upstream or use it to recharge aquifers;
 - private water distribution networks between landholdings so that the currently licenced abstraction volume can be deployed more effectively on farms;
 - maintaining and investing in weirs to control flows and hold water in the environment for longer;
 - rainwater harvesting and grey water reuse in the built environment.

38. In the final plan, the CLA hopes that WRE will cement its requirement to incentivise developers to install rainwater harvesting and grey-water recycling systems in new homes and other buildings.
39. With respect to larger-scale, longer-term supply-side infrastructure, the CLA recognises that WRE has expended substantial effort to establish the most effective locations for large reservoirs and other infrastructure projects. These projects are needed to improve environmental health whilst supporting a growing population. Nevertheless, the CLA would like to seek several reassurances that:
- filling new large-scale reservoirs will not reduce abstraction licences of farmers and growers downstream;
 - farmers and growers can access some of the water stored within these new public water supplies and transfers where needed, at wholesale rates;
 - the minimum number of compulsory purchase agreements are made;
 - high-quality farmland is disturbed as minimally as possible in the installation and upgrading of new pipeline and reservoir infrastructure.
40. Finally, the CLA believes that desalinisation should be consistent with net zero to qualify as a least-regrets option (see response to Question 3).

Question 6: Has our plan been co-created in a fair, open and transparent way, involving the right stakeholders?

41. The CLA is encouraged that agriculture has received more substantial treatment in this round of planning compared to previous rounds. Nonetheless, the CLA feels that the current governance structure of WRE made it difficult for the agricultural sector to be a full contributor in developing the draft plan. We are disappointed that the draft plan is not truly multisector.
42. One of the barriers to agriculture being better integrated into WRE's plan is the lack of money within the industry to pay for modelling future agricultural water need at catchment and sub-catchment scales. OfWAT ring-fences the spending of billpayer revenue, preventing water companies involved in WRE from modelling these deficits, even though the CLA believes that the most resource-effective for modelling agricultural water need is through the regional water resource planning process.
43. The CLA's solution would be to re-interpret OfWAT's regulation. Land management is pivotal in determining how water moves through catchments to rivers and groundwater, and the overall availability of water for the public water supply. This means that understanding agriculture is fundamental to water companies effectively managing their water supplies. As a precedent, Anglian Water already uses billpayer revenue to pay for

cover cropping on farms and has offered a Farm Innovation Grant to farmers in certain catchments. We suggest that OfWAT's ring-fencing can be re-interpreted or re-drawn to overcome the poor integration of agriculture into the draft plan.

Question 7: What further catchment-level analysis or activity would it be useful for WRE to prioritise?

44. As discussed above under Questions 1 and 6, an urgent priority for WRE is to establish future agricultural water needs at catchment and sub-catchment scales. This modelling should study how increased horticultural production will increase total farm water needs, not just how the water needs of existing horticulture will increase. If reported at a sub-catchment scale, this modelling work would match the scales at which farmers and growers plan, making the WRE's process more relevant to them, and increasing the likelihood of judicious investment.
45. Analysing the potential contribution of nature-based solutions at a local scale would help identify where future demand can be partially met without hard infrastructure. Some of our members have commissioned private studies to assess these opportunities. They are sizeable, and could attract significant private investment, including from water companies.
46. Catchment-scale modelling of aquifer recharge would also be valuable.

Question 8: Are there any areas which you feel WRE should be considering which are not currently reflected in our plan?

47. Flooding is mentioned in the draft plan, but the CLA believes that it should be a larger focus given the holistic nature of the planning process. Currently, Internal Drainage Boards pump huge quantities of floodwaters out of the Fens and the Wash to sea, which could become key water supplies during drier months. The CLA's recommendations about Nature-based Solutions, on-farm reservoirs, and water recycling at river mouths could all contribute to storing this water.
48. Many Nature-based Solutions that store water, such as woodland regeneration, improved soil health, and peatland restoration, also have carbon sequestration benefits which could help offset greenhouse gas emissions from the large infrastructure projects within WRE's plan for the public water supply. WRE should further explore these synergistic benefits in cost-benefit analysis.
49. Irrigated golf courses, which tend to consume mains water, have a large potential for water demand reductions through on-site reservoirs and grey-water harvesting from nearby roads and housing estates (treated through reedbeds).
50. Finally, WRE's final plan and accompanying website should have easily accessible data and information which farmers, growers and other land managers can use to support



their future investment decisions. They need to receive information about future water resources in a spirit of partnership.

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