

The Water resources strategy sets out how we believe water resources should be managed in the long term. The strategy looks at the measures that we believe are necessary for all sectors of abstraction and use, to ensure enough water for people and the environment.

What does this briefing cover?

This briefing focuses specifically on agriculture. It outlines the pressures, and the solutions that the water resources strategy offers to help deal with them. This briefing supplements the [‘Water resources strategy – External briefing.’](#)

Pressures

The key pressures are:

- Irrigation;
- Climate change;
- The UK’s wider footprint;
- Food security;
- Change of landuse.

Irrigation

- Irrigation is the most significant use of water in the agriculture sector but on average only accounts for 1 percent of total abstraction.
- Demand for irrigation is concentrated at the time when water resources are most scarce. Little of this water is returned into environment.
- On a hot dry day in summer, there can be more water abstracted for irrigation in some catchments than for public water supply.
- Demand for irrigation is often concentrated where further opportunities to abstract water are limited, for example, in East Anglia and the East Midlands.
- Demand for water for irrigation could increase in all areas over the next 10 years, and could be 25 percent higher by 2020.
- Increasing demand for potato irrigation is expected to continue over the next 10 years, although this may slow down by 2020.
- Water to irrigate vegetables will become increasingly important in the next 10 years.

Climate change

- For agriculture, the potential impact of climate change on increased demand for water is expected to be high.
- Potential irrigation requirements could increase dramatically, and could move northwards and westwards in the UK as a result of climate change. By the 2050s, much of England and the eastern margins of Wales could experience conditions similar to those currently typical of the Mediterranean.

The UK's wider footprint

- The UK's 'water footprint' – the amount of water used to produce the food and goods we consume - is high.
- The UK is the sixth largest net importer of water in the world, importing 62 percent of the total water used by our society.

Food security

- The World Bank estimates that between 2000 and 2030 cereal production needs to be increased by 50 per cent and meat production by 80 per cent to meet demand.
- If climate change affects the viability of growing crops and manufacturing goods in other countries, some of that activity may move to England and Wales and place significant stress on our water resources.
- The link between food policy/ food security and water resources, as well as the link between energy and water used, is likely to strengthen in the context of climate change.

Change of land use

- Changes in the way land is used, for example urban greening, agriculture, afforestation, change in cropping due to climate change, or growing deep rooted biomass crops can have a significant impact on total water use as well as water quality.

Solutions we offer

To adapt and mitigate to climate change:

- In the context of a twin track approach with demand management, encourage small scale reservoirs to supplement the irrigation requirements of agriculture and horticulture, while minimising the impact on the environment.
- Encourage access to funding for local water efficiency and resource development initiatives for agriculture in areas where water resources are under pressure.
- Work with Planning Authorities to make them aware of the importance of small scale reservoirs as part of the twin track approach.
- Promote the conversion of all abstraction licences to time limited status.
- Work with land managers and abstractors to encourage them to take necessary steps to adapt and mitigate climate change, for example:
 - more efficient use and storage of water in irrigated agriculture;
 - reducing risks from drought;
 - ensure soils are able to effectively absorb rainfall to reduce flood risk.

Towards a better environment:

- Better communication with farmers and farm advisers to use incentives such as agri-environment schemes to encourage good practice in land management.
- We support using 'at source' initiatives to protect water quality.
- Continue to work with farmers to reduce nitrate and phosphorus losses from agriculture through catchment sensitive farming initiatives. As these schemes

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evolve, we want to see a sustained national programme of incentives, advice and training for land managers in England and Wales.

- Establish links between water protection zones and land use practice and identify whether the existing powers are sufficient for the future.
- We support the view that, where it is cost effective to do so, water companies should be funded to make payments to land managers to use land management practices that protect and improve water quality and water resources.
- In the long term, consider using abstraction licensing charges to fund land managers to explore better land management practices in order to protect water resources.

Towards sustainable planning and management of water resources:

- We consider that cost effective water harvesting and water recycling technologies offer an additional water supply, which is particularly attractive in managing resources for agriculture in areas of water stress.
- We support and will continue to promote the establishment of Water Abstractor Groups for agriculture as this will provide an excellent opportunity to share water resources.

To ensure water and water environment are valued:

Ways of charging

- We believe that further reforms to the way we charge for water could provide us with a more effective and flexible approach for securing water efficiency, particularly in areas where pressures on water resources are greatest. We will consider:
 - the potential for charging by volume abstracted, rather than by licensed quantity.
 - the potential to modify the abstraction charging regime to allow cheaper abstraction during the summer months during periods of high flow (as the current charging scheme provides an incentive for winter abstraction). This will help promote small-scale storage reservoirs, where they can be justified in the context of the twin track approach.
- In the longer term, we may need to recover abstraction licence charges to cover the costs of integrated catchment management activities which improve, and protect, water quality and water resources.

Better communication on water efficiency and water conservation

- Promote water efficiency and water conservation measures in agriculture.
- Take a consistent and effective approach to change people's attitudes and behaviour.
- Co-ordinate communications with other organisations.

Targeting science, research and innovation

- Investment in scientific research and technology, for example developing more efficient irrigation equipment.
- Encourage uptake and use of technology, for example developing innovative tariffs.

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- Promote best practice approaches.
- Improved methods and techniques to assess and manage water resources for example better understanding of climate change implications.
- Understand better how changes in society and catchments may affect how we manage water resources.

How will the strategy be implemented?

Working with other organisations

We will work with other organisations such as National Farmers Union (NFU), NFU Cymru, Farmers Union of Wales, UK Irrigation Association (UKIA).

Risk based approach

We will take a risk based approach coupled with reduced administrative burden.

Where can I get more information?

See the Water Resource Strategy pages on our website.

www.environment-agency.gov.uk/wrs

Email Water Resources Strategy.

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