

EA ANGLIAN BOX 1



ENVIRONMENT AGENCY

PROSPECTS FOR SPRAY IRRIGATION

MAKING EVERY DROP COUNT

Introduction

The Environment Agency manages water resources to protect the environment and ensure secure supplies for agriculture, industry and the public. In doing this, the Agency recognises the importance of irrigation to both national and local economies.

In most years water resources are adequate, but in drought conditions the Agency has to work with farmers and growers where water is in short supply in order to make every drop count.

This leaflet identifies the actions in Anglian Region that the Environment Agency and others will take when reviewing prospects for spray irrigation for the coming growing season. These procedures replace the amber and red alerts previously used. The leaflet focuses on communication channels and offers advice on action that irrigators could take to help protect the environment and make scarce resources go further. If restrictions are necessary, procedures for implementing them are described.



Initial forecast of prospects

The Agency recognises the importance to farmers of good quality information, at an early stage, to enable effective planning for the coming season. In late winter each year, the Agency will issue a statement on the prospects for summer irrigation in the Anglian Region to the following organisations, in particular:

- National Farmers' Union
- Country Landowners Association
- Ministry of Agriculture Fisheries and Food

The statement will be relayed to the farming community and where possible will be featured on local radio and in local press. The statement will give one of three forecasts:-

Good *Water levels are average or above average and supplies are expected to be safe. There is a possibility of minor local controls on abstraction from surface water in late summer if the weather is exceptionally hot and dry.*

Moderate *Water levels are low. Some controls on surface water abstraction are possible by mid-summer if the weather is hot and dry. Controls on abstraction from groundwater are possible in small, sensitive groundwater areas.*

Poor *Water levels are well below average. Soil moisture deficit is developing early and significant restrictions on abstraction from surface and groundwater are probable.*

As the situation develops, the Agency will increase dialogue with NFU, MAFF, CLA and local liaison groups. Following on from this, further forecasts will be issued to abstractors in those areas likely to be at risk of water shortages later in the year. Separate forecasts will be given for farmers abstracting from boreholes.

Agreements with local groups of farmers who share the same source of supply will enable more effective planning, make limited resources go further and reduce the impact of abstraction on the water environment. By adopting good practice early, the need for severe restrictions later in the year may also be avoided.

Request for voluntary restrictions

The Agency monitors water levels and quality in rivers, streams and boreholes. If these levels begin to fall unacceptably and restrictions appear likely, the Agency will issue a request for voluntary savings in areas most at risk. The request will be sent by letter or via the media, depending on the extent of the area involved. The relevant NFU/CLA/MAFF offices will also be informed. The request, where possible, will give farmers and growers two weeks notice of formal restrictions. However, if circumstances dictate (eg. a rapid change in environmental conditions or threat of environmental damage through a failure to respond to the request; or if a request is made by farmers to move straight to formal restrictions to enable more effective policing), the Agency may need to impose formal restrictions sooner.



Imposition of **formal** restrictions

(Water Resources Act,
1991; Section 57)

If monitoring shows that water levels, quality or flows are becoming critical, the Agency will impose formal restrictions. Where possible, they will be phased in but will increase in severity as resources become more scarce and the threat of environmental damage grows. Total bans will only be used as a last resort.

Individual licence holders will be informed of the restrictions by letter. Surface water users may be allowed to use a specified percentage of the **daily** licensed volume and may have time constraints put on them. Borehole operators may be allowed to use up to a specified percentage of the **annual** licensed volume. These restrictions will be legally binding under Section 57 of the Water Resources Act 1991. *Spray irrigators who fail to observe them will be liable to prosecution and a fine.*

Abstraction from winter filled reservoirs which are entirely isolated from surface or groundwaters in summer is exempt from the above and is encouraged by the Agency where water and a suitable site are available.

Surface water abstractions taken below the designated tidal limit of rivers are unlikely to be formally restricted (where this runs to tide) unless flows in this section are essential for the benefit of the environment.



Action by the licence holder

WHAT CAN **YOU** DO?

- check and observe the conditions of your licence. Many licences have cessation conditions which require abstraction to reduce or cease when the river falls below a specified flow or level. If your licence has such a condition, you must abide by it in addition to any drought restrictions.
- make sure your water meters are in good working order, and have their accuracy checked in accordance with the manufacturer's instructions.
- before the season starts, make sure your irrigation equipment is well set up. Check the condition of your pumps, mains and hydrants, repair worn items such as seals and replace broken items. Also make sure that you will be using the correct nozzles, lane spacing and pressure to apply the right amount of water for each crop. Avoid wasting water by making sure that all the seals are tight. Get a check list from an irrigation adviser to make sure your preparations are complete.
- set up an accurate and reliable irrigation scheduling system. Commercial advisers can also help you here. Prioritise your crops and



fields in terms of water need. *A lesson learned by many abstractors during recent droughts is that many crops do not always need water in the quantities sometimes applied in the past. Better programming may result in more effective use of limited supplies.*

- during recent droughts, several *local liaison groups* with abstractors sharing common sources of supply have been formed. A spokesperson often acts as a focal point for liaison with the Agency. You may wish to establish or encourage your neighbours to form local groups to help improve the flow of information during a drought. The Agency, NFU and CLA will be happy to facilitate the establishment of such groups by identifying irrigators who share the same source of supply.
- for the longer term and if a suitable site exists, consider building a winter storage reservoir. Abstraction in winter is cheaper than in summer and the supply will be more reliable. An abstraction licence will be required in order to fill the reservoir (the Agency can advise on the availability of water) and planning permission may also be required. If a winter storage reservoir is feasible, you might consider spreading the cost by sharing it with your neighbours. In order to get the siting and construction right you will probably need the advice of a consultant.

WHAT CAN **YOU** DO DURING THE SEASON?

During the season, don't irrigate in the heat of the day if you can avoid it. Remember that crops can suffer from too much water as well as too little. Experience and feedback shows that night time irrigation is popular and widely recognised as an effective manner of application.

When you get a *request for voluntary savings*, do **NOT** apply more water. This will only bring formal restrictions sooner. Review your planned irrigation programme and work out which crops will need water most at the next stage and which will suffer least if left without it. It is not a foregone conclusion that formal restrictions will follow if voluntary savings are seen to be effective.

With the *imposition of formal restrictions*, you will receive notice to reduce the quantity of water used for irrigation. Remember this notice is legally enforceable and you must comply with it. If you ignore it, you may be liable to prosecution and a fine.



Let's work
together
to make
the most
of our
water

GOOD IRRIGATION PRACTICE

After recent exceptionally dry years, we all recognise that supplies of water for irrigation are not limitless. Farmers and growers holding Environment Agency licences to abstract water from surface supplies or boreholes depend upon irrigation to make the most profitable use of their land. At the same time, the Agency has a legal responsibility to manage water resources for the common good and when flows or levels become critical, restrictions on abstraction for irrigation* may be unavoidable.

SHARING OUT SUPPLIES

Even with heavy winter rainfall, there will often be demands for irrigation at a time when levels in rivers and groundwater sources tend to be lowest. When water levels become critical, restrictions on abstraction for irrigation may be unavoidable. How can we make these vital supplies go further? The programme in this leaflet is designed to make sure supplies of water for irrigation are used to best advantage in dry summers.

Don't forget, all these actions are aimed at avoiding the final stage - a total ban on your abstraction.

Finally, remember that each year's water supply has to last until the next winter's rains.

* This leaflet concerns water that is abstracted direct from surface waters or from boreholes for the purpose of spray irrigation. Water supplied through the public mains is the responsibility of the water undertakers and different procedures for limiting its use apply.

Other leaflets that may provide further advice include:-

- **Good Irrigation Practice;** making every drop count when there is not enough to go around. MAFF, 1996. (Ref PB2513) - not to be confused with the 1992 version of this leaflet.
- **Winter Storage Reservoirs;** getting control over your water resource. MAFF, 1996. (Ref PB2512)
- **Irrigation Scheduling; uses and techniques.** MAFF, 1996. (Ref PB 2511)
- **Abstraction Licensing and Water Resources;** a guide for potential abstractors, Environment Agency 1996. (Ref HO-5/96-9K-C-AUJS)
- **Making the most of your spray irrigation licence;** Environment Agency 1997

These and other useful leaflets can be obtained from:

MAFF Publications Tel: 0645 556000.

Environment Agency Publications
Tel: 01454 624400



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ANGLIAN ADDRESSES

REGIONAL OFFICE

Environment Agency
Kingfisher House
Goldhay Way
Orton Goldhay
Peterborough PE2 5ZR
Tel: 01733 371 811
Fax: 01733 231 840

NORTHERN AREA

Environment Agency
Harvey Street,
Lincoln LN1 1TF
Tel: (01522) 513 100
Fax: (01522) 512 927

CENTRAL AREA

Environment Agency
Bromholme Lane
Brampton
Huntingdon PE18 8NE
Tel: (01480) 414 581
Fax: (01480) 413 381

EASTERN AREA

Environment Agency
Cobham Road
Ipswich IP3 9JE
Tel: (01473) 727 712
Fax: (01473) 724 205



For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

**ENVIRONMENT AGENCY
GENERAL ENQUIRY LINE**

0645 333 111

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water.

**ENVIRONMENT AGENCY
EMERGENCY HOTLINE**

0800 80 70 60

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