

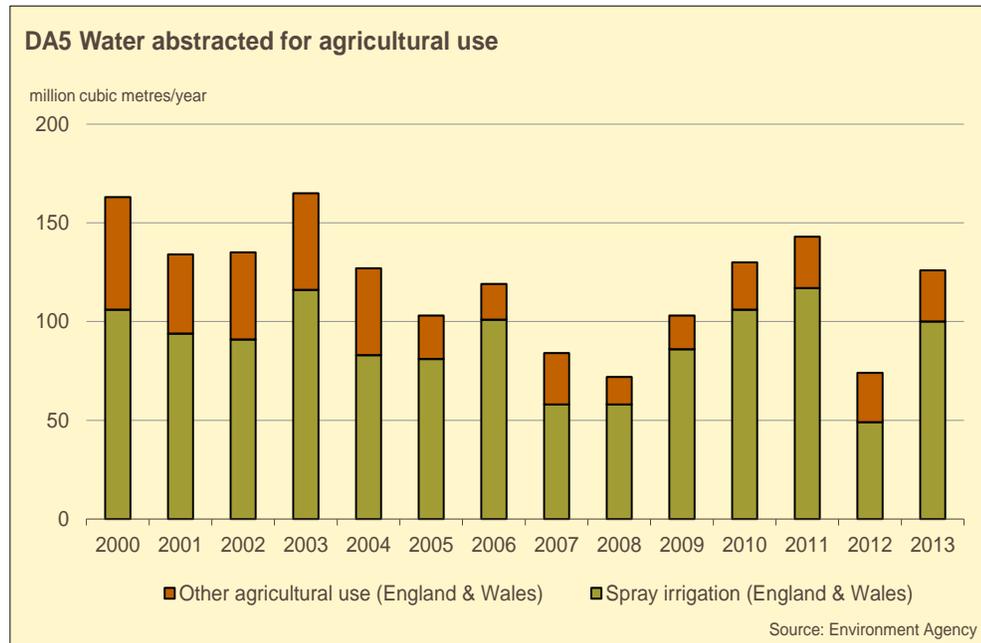
Observatory monitoring framework – indicator data sheet

Environmental impact: Water

Indicator DA5: Water abstraction for agriculture

This indicator shows the recorded quantity of water abstracted from surface and groundwater for agricultural use.

Chart DA5 shows the annual total reported levels of water abstracted in England and Wales for agricultural uses.



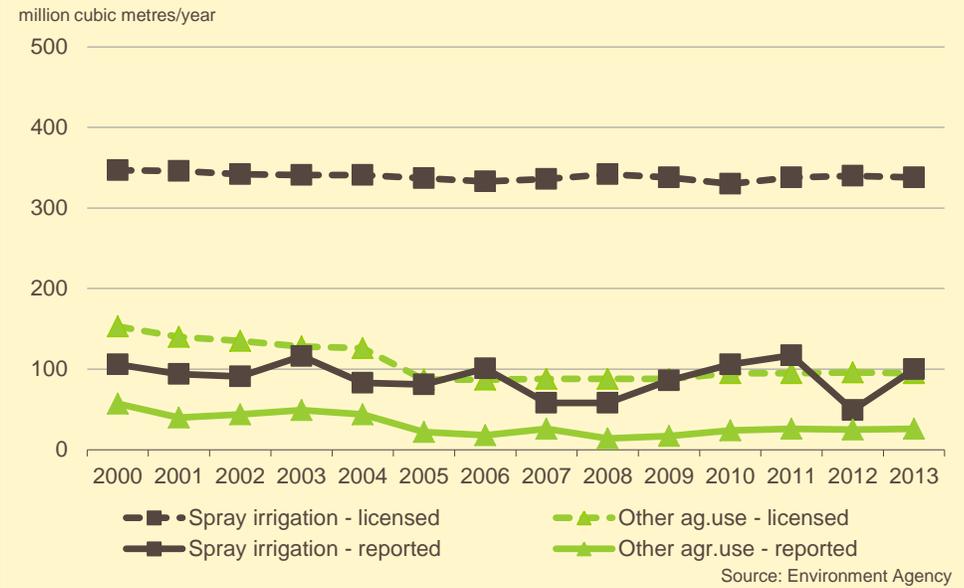
Between 2012 and 2013:

- the recorded agricultural abstraction of 126 million cubic metres was 70% higher than in 2012;
- Spray irrigation is the dominant form of use in agriculture.

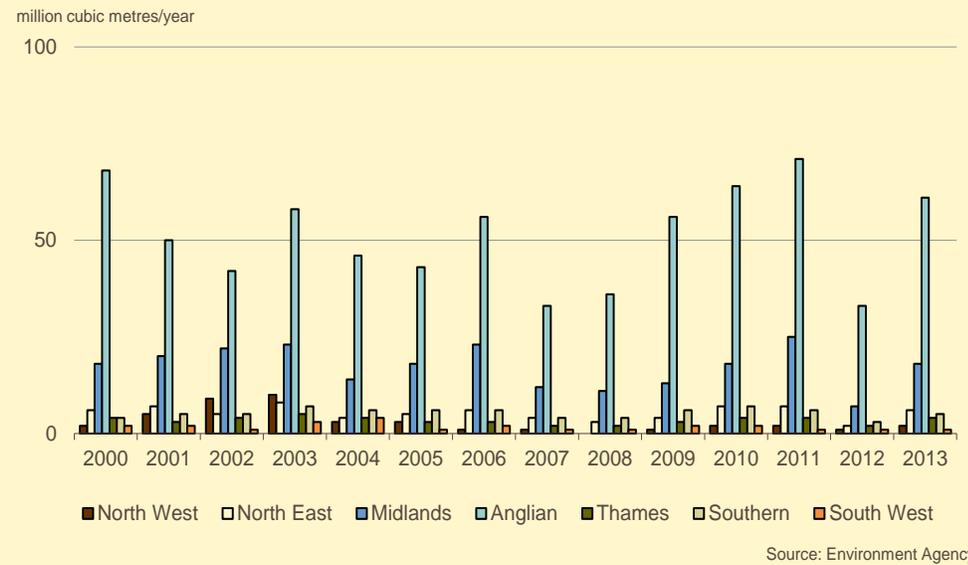
Water abstraction is licensed by the Environment Agency.

Reported abstractions are somewhat lower than licensed abstractions.

DA5a Water abstracted for agricultural use



DA5bi Water abstracted for spray irrigation by EA region



Regional data

In 2013:

- The Anglian and Midland regions have together on average accounted for over 75% of reported abstractions for spray irrigation each year.

Compared to 2012:

- there were increases in all regions with the exception of the South West region, which remained the same.

Spray irrigation is generally confined to the summer months when weather patterns generally govern the amount abstracted, for example wetter years may result in a decrease in abstraction for spray irrigation.

The 2010 Irrigation Survey showed that potatoes and vegetables accounted for 80% of the volume of water used to irrigate outdoor crops in England. The Midlands and Anglian regions together account for the majority of these crops.

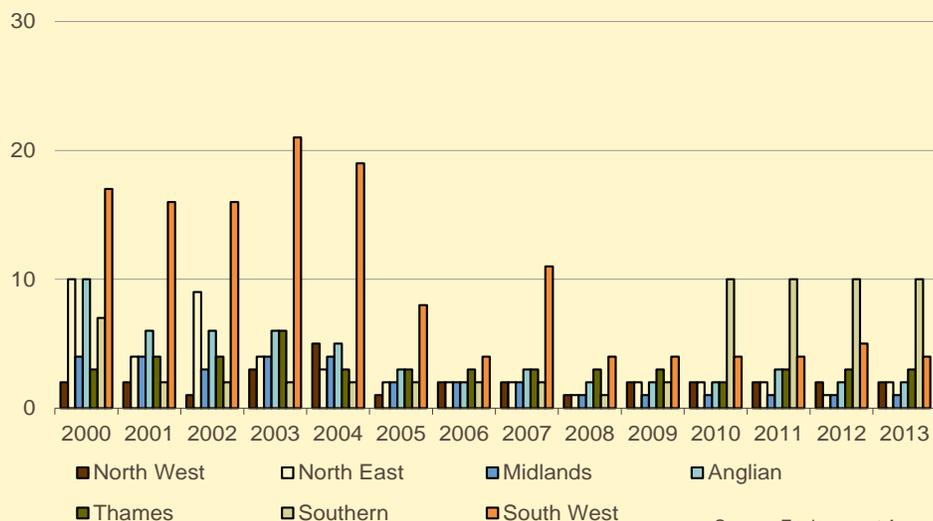
Other agricultural uses will be more evenly distributed across the year.

Abstractions of less than 20m³ per day became exempt from licensing from 1 April 2005. The data for other abstractions for agricultural use are more greatly affected by this change.

From 1 April 2008 returns were no longer required for licences authorising under 100m³ per day. This may have had minimal impact on agricultural uses.

DA5bii Water abstracted for other agricultural use by EA region

million cubic metres/year



Source: Environment Agency

In 2008 actuals may have been underestimated due to the standardisation of return requirements in England and Wales (see fact sheet for details).

Between 2009 and 2010, the water abstracted in the Southern region increased due to some licences being reclassified as agricultural use.

This indicator was updated in June 2015. It will next be updated in April 2016.

Further information and contact

Background information can be found in the accompanying fact sheet.

For queries or information on this indicator contact Defra's Observatory team on +44 (0) 1904 455058 or email observatory@defra.gsi.gov.uk

Observatory monitoring framework – indicator fact sheet

Environmental impact: Water

Indicator DA5: Water abstraction for agriculture

<i>Indicator</i>	Water abstracted for agricultural use
<i>Data</i>	Annual water abstraction for agriculture (million cubic metres/year)
<i>Geographic coverage</i>	England and Wales
<i>Years</i>	2000 – 2013
<i>Source</i>	Defra: Environment and wildlife statistics
<i>Origin of data</i>	Environment Agency
<i>Updates</i>	This indicator will be updated annually. The next update will be in April 2016.
<i>Background</i>	<p>This indicator shows the quantity of water abstracted from surface and groundwater for agricultural use. The need for irrigation is generally dependant on the weather, especially rainfall, but this also depends on the annual and geographic distribution of the rainfall. Just under half of the water abstracted for agricultural purposes comes from surface waters and just over half comes from groundwaters although this varies considerably on a regional basis. The annual water abstraction data are published in million cubic metres per year.</p> <p>Water use is becoming an increasingly important issue. Agricultural uses accounted for just 0.6% of recorded water abstraction in England and Wales in 2013.</p> <p>The Environment Agency launched the Catchment Abstraction Management Strategies (CAMS) process in April 2001 for every catchment in England and Wales. CAMS provide a consistent and structured approach to local water resources management, recognising the reasonable needs of abstractors and the needs of the environment. This fits in with the needs of the Water Framework Directive, which requires a regular review of abstraction and impounding licences. CAMS enable the consideration of how much water can be abstracted from watercourses without damaging the environment. They will provide more local detail on the availability of water, and will allow a detailed assessment of where action may be needed to deal with problems of over abstraction.</p>
<i>Statistical & methodological information</i>	<p>The figures are taken from the Environment Agency's data on industrial water abstraction. The Environment Agency collate this data from the Water Companies. Estimates are based upon returns from license holders. However, only a small number of agricultural users make returns. This should be borne in mind when interpreting the figures.</p> <p>A license is required from the Environment Agency to abstract water. The Water Act 2003 made changes to the licensing system in England and Wales, including the deregulation of small abstractions by setting a threshold of 20 cubic metres per day as the value above which an abstraction license will be required (implemented April</p>

2005) and including previously exempt activities such as trickle irrigation within the licensing system (change not expected before April 2014).

Data are presented for spray irrigation and other agricultural use. It should be noted that spray irrigation data includes a small amount of non-agricultural use.

Return requirements were changed from 01/04/2008 whereby licences that authorise under 100m³/day are no longer asked to submit records of abstraction to the Environment Agency. This may have had a minimal impact on some reported purposes e.g. agriculture, private water supply and other.

In addition, return requirements were standardised across England & Wales and the majority of returns are now requested on financial years. To align previous reporting practices two return requests were made for 2008; one at the end of the period January 2008 to March 2008 and a second at the end of period April 2008 to March 2009. This may have had an effect on underestimating actuals whereby returns may have been received for only part of the calendar year.

*Further
information*

Water abstraction data can be found at:

<https://www.gov.uk/government/publications/water-abstraction-estimates>

Information on the Water Act 2003 can be found at:

<http://www.legislation.gov.uk/ukpga/2003/37/contents>

Information on water resources and abstraction licenses can be found at:

<http://www.environment-agency.gov.uk/business/topics/water/32020.aspx>

Information about the 2005 Survey of Irrigation of Outdoor Crops can be found at:

https://dspace.lib.cranfield.ac.uk/bitstream/1826/2867/1/Survey_of_irrigation_of_outdoor_crops_in_2005-England_and_Wales-2007.pdf