

Water Resource Availability and Reliability

Product description

January 2015

This is a national picture of water resource availability and reliability mapped to Water Framework Directive Cycle 2 boundaries.

Description

The Environment Agency is responsible for managing water resources in England. We need to make sure there is enough water for people (public water supply, industry and agriculture) and a healthy environment. The Environment Agency controls how much water is taken with a permitting system. The Environment Agency regulate existing licences and grant new ones. They use the catchment abstraction management strategy (CAMS) process and abstraction licensing strategies to do this.

The publication '[managing water abstraction](#)' sets out the approach and regulatory framework within which we will manage water resources.

Any assessment of water availability for abstraction licensing is subject to local assessment and will be dealt with on case by case basis by the Environment Agency. To view local abstraction licensing strategies please visit gov.uk.

Using the product

The data is based on a nationally consistent method. The data is mapped to Water Framework Directive Cycle 2 boundaries.

Table 1 describes each of the water resources availability colours and what this may mean for licensing. Table 2 describes each of the percentage reliability of consumptive abstractions colours and what this may mean for reliability and licensing.

| Water resource availability colour | Colour | Implication for licensing |
|---|--------|--|
| Water available for licensing | Green | There is more water than required to meet the needs of the environment. New licences can be considered depending on local and downstream impacts. |
| Restricted water available for licensing | Yellow | Full licensed flows fall below the Environmental Flow Indicator. If all licensed water is abstracted there will not be enough water left for the needs of the environment. No new consumptive licences would be granted. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available if you can 'buy' (known as licence trading) the entitlement to abstract water from an existing licence holder. |
| Water not available for | Red | Recent actual flows are below the Environmental Flow |

| | | |
|---|------|---|
| licensing | | <p>Indicator.</p> <p>This scenario highlights waterbodies where flows are below the indicative flow requirement to help support Good Ecological Status (as required by the Water Framework Directive).</p> <p>Note: we are currently investigating waterbodies that are not supporting Good Ecological Status / Good Ecological Potential). No further consumptive licences will be granted. Water may be available if you can buy (known as licence trading) the amount equivalent to recently abstracted from an existing licence holder.</p> |
| Heavily modified water bodies (and/or discharge rich catchments) | Grey | <p>These waterbodies have a modified flow that is influenced by reservoir compensation releases or they have flows that are augmented. These are often known as 'regulated rivers'. They may be managed through an operating agreement, often held by a water company. The availability of water is dependent on these operating agreements.</p> <p>There may be water available for abstraction in discharge rich catchments; you need to contact the Environment Agency to find out more.</p> |

Table 1: Water resource availability descriptions

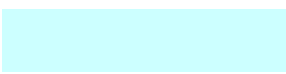
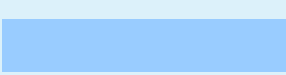
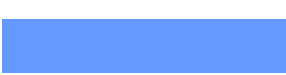


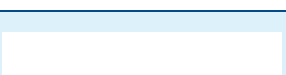
| Resource reliability | Percentage of the time additional consumptive resource may be available |
|---|---|
|  | Consumptive abstraction available less than 30% of the time. |
|  | Consumptive abstraction available at least 30% of the time |
|  | Consumptive abstraction available at least 50% of the time |
|  | Consumptive abstraction available at least 70% of the time |
|  | Consumptive abstraction available at least 95% of the time |
|  | Not assessed |

Table 2: Percentage reliability of consumptive abstraction

Limitations to the data

Does not reflect local requirements that might impact or override water availability and reliability.

Until December 2015 there will be differences between the Water Framework Directive Cycle 2 boundaries and boundaries used in the Abstraction licensing strategies published on gov.uk.

Groundwater availability and reliability may be subject to additional information that is not included in this dataset.

This data does not include consideration of Water Framework Directive's High Ecological Status (element or overall status) or specific objectives, as given in the River Basin Management Plans, both of which could influence water availability. To view information on the Water Framework Directive please visit gov.uk.

Data fields

| Data field | Description |
|---------------------|---|
| FID | Primary key in geographical dataset |
| SHAPE | Polygon |
| EA_WB_ID | Unique ID for Cycle 2 WFD river, lake and transitional water body |
| SHAPE_LENGTH | Length of polygon |
| SHAPE_AREA | Area of polygon |
| COUNTRY | Country that the water body sits in |
| CAMSCDSQ30 | Water resource availability colour based on the worst downstream water body, water resource availability colour at the flow percentile called Q30 |
| CAMSCDSQ50 | Water resource availability colour based on the worst downstream water body, water resource availability colour at the flow percentile called Q50 |
| CAMSCDSQ70 | Water resource availability colour based on the worst downstream water body, water resource availability colour at the flow percentile called Q70 |
| CAMSCDSQ95 | Water resource availability colour based on the worst downstream water body, water resource availability colour at the flow percentile called Q95 |
| RESAVAIL | Water resource reliability as a percentage of time. |