

Reservoir Watch March 2023

Reservoir Group	January 2023 Holding	February 2023 Holding	March 2023 Holding	Change in February – March period	Minimum historical* March holding (Year)
Kennet & Avon Canal	91.3%	87.9%	87.9%	0.0%	87.8% (2012)
Oxford & GU	95.3%	95.8%	98.5%	2.7%	48.3% (2012)
GU South	69.7%	78.3%	80.7%	2.4%	60.6% (2012)
GU North	99.9%	99.9%	99.9%	0.0%	38.4% (2012)
Lancaster Canal	98.1%	96.5%	100%	3.5%	99.1% (2022)
Leeds & Liverpool Canal	90.4%	90.7%	91.5%	0.8%	85.0% (2009)
Peak Forest & Macclesfield Canals	65.1%	63.3%	67.1%	3.8%	44.1% (2022)
Caldon Canal	86.3%	86.2%	87.2%	1.0%	86.5% (2006)
Huddersfield Narrow Canal	71.0%	81.2%	89.3%	10.2%	30.4% (2014)
Chesterfield Canal	24.4%	23.8%	28.7%	4.9%	51.8% (2021)
Grantham Canal	92.4%	91.8%	91.7%	-0.1%	90.2% (2012)
Birmingham Canal Navigations	95.2%	95.5%	97.6%	2.1%	33.8% (2012)
Staffs & Worcs, Shropshire Union	88.0%	87.9%	87.4%	-0.5%	73.5% (2011)

** for the purposes of this analysis, historical holdings cover 1998-2022 reservoir holding data, inclusive.*

General Conditions

According to the UK Centre for Ecology and Hydrology February was a dry and mild month with England and Wales receiving less than a fifth of its average rainfall. The conditions experienced in February resulted in the recording of a below average winter (December-February) rainfall period, with the Anglian and Trent regions experiencing their driest winter since 2004-05 whilst Yorkshire, the Severn-Trent and Anglian regions recorded their driest 12-month period since 2011-12. These dry conditions resulted in the continuation of river flow recessions which began in mid-January, with much of England and Wales experiencing below average flows, for February whilst the midlands experienced exceptionally low levels of flow for the month.

Soil moisture levels in the north of England were in the normal range, however groundwater levels in the south of England fell below normal levels for the time of year. The recession of levels at chalk sites at the end of the month indicates a possible early end to the recharge season unless significant rainfall occurs in the next few months.

The dry and mild conditions of February have given way to unsettled weather in early March which has supported the rewetting of soils. However, should dry conditions return further challenges may be posed to water resources during the summer.

The Met Office rainfall anomaly graphs and maps can be viewed at:

https://www.metoffice.gov.uk/pub/data/weather/uk/climate/anomalygraphs/2022/2022_Rainfall_Anomaly_1981-2010.gif

https://www.metoffice.gov.uk/pub/data/weather/uk/climate/anomacts/2023/2/2023_2_Rainfall_Anomaly_1991-2020.gif

The Trust's Water Resources

Of the thirteen of the Trusts reservoir groups seven recorded decreases in holding, whilst five recorded increases and one remained the same. The largest change in the Trusts water resources came in the north with the Huddersfield Narrow canal, which rose by 10.2%.

In the south, three of the five reservoir groups recorded an increase, the greatest of which being the Oxford & Grand Union with 2.7%, followed by the Grand Union South and the BCN which recorded increases of 2.4% and 2.1% respectively. The other two reservoir groups in the south maintained their reservoir holdings with Grand Union North remaining the same with a holding of 99.9%, and the Kennet and Avon recorded a holding of 87.9%, the same as the previous month.

Of the eight reservoir groups in the north six recorded increases in their percentage holding. The Huddersfield Narrow Canal recorded the largest increase in percentage holding with an 8.1% increase. This can be attributed to the refilling of Sparth and Slaithwaite reservoirs following recent wet weather conditions. Following this, the greatest increase in holding was recorded in the Chesterfield canal which increased by 4.9%, followed by the Peak Forest & Macclesfield (3.8%), Lancaster (3.5%), Caldon (1.0%) and the Leeds & Liverpool (0.8%). The only reservoir groups to record a decrease in holding were the Staffs, Worcs & Shropshire Union, which recorded a 0.5% decrease and the Grantham Canal recorded which decreased by 0.1%. The increases in reservoir holding for many of the reservoir groups can be attributed to the wetter conditions which have characterised the early part of March.

As always, the Water Management Team will continue to monitor all reservoir holdings during the coming months and work closely with operational staff to ensure water resources are deployed efficiently.

Boaters are advised to subscribe to email notifications of any waterway restrictions or closures at: <http://canalrivertrust.org.uk/notices>.

Issued by:

Water Management Team, Canal & River Trust
22 March 2023

Reservoir data presented is from the week ending Monday 13th March unless stated, along with data from the nearest comparable date in January and February.

Annex 1 – Canal & River Trust reservoir groups

Group name	Reservoirs within group
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Kennet & Avon Canal	Crofton [<i>principally a spring-fed reservoir, and its yield is therefore greater than the storage volume indicates</i>]
Oxford & GU	Boddington, Wormleighton, Clattercote, Naseby, Sulby, Welford, Drayton & Daventry
GU South	Startopsend, Wilstone, Marsworth & Tringford
GU North	Saddington
Lancaster Canal	Killington
Leeds & Liverpool Canal	Rishton, Barrowford, Upper & Lower Foulridge, Slipper Hill, Whitemoor & Winterburn
Peak Forest & Macclesfield Canal	Sutton, Bosley, Toddbrook & Combs
Caldon Canal	Rudyard, Stanley & Knypersley
Huddersfield Narrow Canal	Sparth, Slaithwaite & Diggle
Chesterfield Canal	Harthill & Pebley
Grantham Canal	Knipton & Denton
Birmingham Canal Navigations	Windmill Pool, Terry's Pool, Engine Pool, Cofton, Upper Bittell, Rotton Park & Chasewater
Staffs & Worcs, Shropshire Union	Belvide, Gailey Upper, Gailey Lower & Calf Heath