

Reservoir Group	February 2023 Holding	March 2023 Holding	April 2023 Holding	Change in March - April period	Minimum historical* April holding (Year)
Kennet & Avon Canal	87.9%	87.9%	87.9%	0.0%	91.6% (2022)
Oxford & GU	95.8%	98.5%	99.7%	1.2%	58.6% (2012)
GU South	78.3%	80.7%	86.9%	6.2%	61.8% (2012)
GU North	99.9%	99.9%	99.9%	0.0%	46.7% (2012)
Lancaster Canal	96.5%	100%	100.0%	0.0%	95.4% (2013)
Leeds & Liverpool Canal	90.7%	91.5%	92.6%	1.1%	74.4% (2009)
Peak Forest & Macclesfield Canals	63.3%	67.1%	70.7%	3.6%	45.1% (2022)
Caldon Canal	86.2%	87.2%	98.6%	11.4%	81.4% (2013)
Huddersfield Narrow Canal	81.2%	89.3%	84.2%	-5.1%	61.2% (2021)
Chesterfield Canal	23.8%	28.7%	28.4%	-0.3%	53.0% (2020)
Grantham Canal	91.8%	91.7%	92.2%	0.5%	93.1% (2022)
Birmingham Canal Navigations	95.5%	97.6%	99.5%	1.9%	39.4% (2012)
Staffs & Worcs, Shropshire Union	87.9%	87.4%	87.8%	0.4%	76.0% (2002)

* 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, the start of March was dry and settled following on from the dry conditions that were established in February. Following this dry period, notable wet conditions were found throughout England and Wales later in the month, with March rainfall for the UK being 155% of average. Rainfall was greatest in the south of England with some places receiving up to three times the average rainfall. The dry weather at the start of the month had resulted in well below average river flows. Nevertheless, for March as a whole, river flows were above normal to exceptionally high, especially in the south and west regions.

Due to the increased rainfall, soil moisture levels increased from the previous month, and towards the end of the month, soil moisture was at or above average across the UK. In the early part of March, groundwater levels in the chalk were falling at many sites but by late March levels were rising at all but three sites.

As the above average rainfall conditions continue into early April, we can expect river flows and groundwater levels to be within the normal range and above in most part of the UK in the coming months. Despite this, as we enter the spring and summer months, vigilance may be needed if drier conditions return.

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

<https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-temperature-rainfall-and-sunshine-anomaly-graphs>

https://www.metoffice.gov.uk/pub/data/weather/uk/climate/anomacts/2023/3/2023_3_Rainfall_Anomaly_1991-2020.gif

The Trust's Water Resources

Of the thirteen of the Trusts reservoir groups eleven recorded increases in holding, whilst two recorded decreases and one remained the same. The largest change in the Trusts water resources came in the north with the Caldon canal, which rose by 11.4%.

In the south, three of the five reservoir groups recorded an increase in holding, the greatest of which being the Grand Union South with 6.2%, followed by the BCN and the Oxford & Grand Union, which recorded increases of 1.9% and 1.2% respectively. The other two reservoir groups in the south maintained their reservoir holdings with the Grand Union North remaining the same with a holding of 99.9%, and the Kennet and Avon with 87.9%.

Of the eight reservoir groups in the north five recorded increases in their percentage holding. After the Caldon, the greatest recorded increase in holding was recorded in the Peak Forest and Macclesfield Canal with 3.6% Following this the Leeds and Liverpool recorded a 1.1% increase, the Grantham, 0.5%, and the Staffs, Worcs and Shropshire union recorded a 0.4% increase. The strong increase in the Caldon Group holding can be attributed to the refilling of Rudyard reservoir in recent weeks following the wetter weather which has characterised the last month. The increase in the PF&Ms holding has largely been as a result of the refilling of Sutton and Bosley reservoirs which has once more been supported by recent wet weather. The only reservoir groups to record a decrease in holding were the Huddersfield Narrow Canal, which recorded a 5.1% decrease and the Chesterfield Canal, which recorded a decrease of 0.3% The decrease in the HNCs holding can be attributed to the continued drawdown of Slaithwaite reservoir to just around -1.5m for leakage monitoring and to take into account recent rainfall.

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
21 April 2023

Reservoir data presented is from the week ending Monday 19 April unless stated, along with data from the nearest comparable date in February and March.

Annex 1 – Canal & River Trust reservoir groups

Group name	Reservoirs within group
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