

Reservoir Group	April 2023 Holding	May 2023 Holding	June 2023 Holding	Change in May - June period	Minimum historical* June holding (Year)
Kennet & Avon Canal	87.9%	87.9%	87.9%	0.0%	80.7% (2022)
Oxford & GU	99.7%	99.7%	90.4%	-9.3%	66.0% (2011)
GU South	86.9%	83.4%	77.1%	-6.3%	81.2% (2006)
GU North	99.9%	99.9%	88.1%	-11.8%	59.4% (2011)
Lancaster Canal	100.0%	96.9%	83.3%	-13.6%	70.5% (2020)
Leeds & Liverpool Canal	92.6%	87.5%	66.7%	-20.8%	52.8% (2010)
Peak Forest & Macclesfield Canals	70.7%	67.2%	56.8%	-10.4%	33.4% (2022)
Caldon Canal	98.6%	95.1%	82.9%	-12.2%	67.6% (2022)
Huddersfield Narrow Canal	84.2%	70.9%	55.4%	-15.5%	40.6% (2013)
Chesterfield Canal	28.4%	32.7%	27.6%	-5.1%	52.8% (2020)
Grantham Canal	92.2%	92.4%	91.5%	-0.9%	89.9% (2021)
Birmingham Canal Navigations	99.5%	99.8%	94.1%	-5.7%	33.2% (2011)
Staffs & Worcs, Shropshire Union	87.8%	87.3%	85.5%	-1.8%	73.6% (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, May was dry and warm overall, but had contrasts throughout the month. For the first half of the month, there was strong winds and rainfall especially in southern Britain, which follows the wet theme from the previous spring months. During mid-month, this theme changed due to sustained anticyclonic conditions, resulting in the second half of the month being sunny, dry and warm. Overall, May was a dry month, with 55% of the typical rainfall for May in the UK, only the eastern and central areas of southern England saw above average rainfall. This geographical variation meant that river flows showed a significant regional north-south contrast, with northern areas experiencing below-average flows, and southern areas were above normal or notably high.

The soil moisture corresponded with the conditions this month, meaning that the levels were higher at the beginning of the month and declined as it got warmer and drier in the latter half of the month. Overall, soil moisture levels were generally well below average with deficits increasing across the UK. This trend was similar to groundwater levels, where levels mostly decreased throughout the UK, but levels remained high in southern England.

As we approach the summer months there is increased environmental and agricultural stress due to the intense dry and warm conditions that were established in the second half of May. This is especially significant in northern and western areas where river flows are low and likely to continue into the summer months. For southern areas, the wet spring means that water resources are more favourable, but there should be extra vigilance as evaporation rates increase.

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/2023/5/2023_5_Rainfall_Anomaly_1991-2020.gif

The Trust's Water Resources

Of the thirteen of the Trusts reservoir groups, twelve recorded decreases in holding, with the remaining reservoir group showing no change, this was the Kennet & Avon. The largest change in holding was the Leeds & Liverpool Canal with a 20.8% decrease.

In the south, four of the five reservoir groups showed a decrease in holding, the only one that did not show a decrease was the Kennet & Avon Canal, which showed no change and remained at 87.9% holding. The largest decrease was found in the Grand Union North with a decrease of -11.8%, this was followed by Oxford & GU with a decrease of -9.3%, then Grand Union South and Birmingham Canal Navigation with -6.3% and -5.7% respectively.

Of the eight reservoir groups in the north, all of them showed a decrease in holding. The largest decrease in holding was found in the Leeds & Liverpool Canal with -20.8%, this was closely followed by Huddersfield Narrow Canal with a decrease of -15.5%. The remaining six reservoir groups, Lancaster, Caldon, Peak Forest & Macclesfield, Chesterfield, Staffs, Worcs and Shropshire and Grantham, recorded decreases of -13.6%, -12.2%, -10.4%, -5.1%, -1.8% and -0.9%, respectively. This decrease across all reservoir groups can be attributed to increased usage of reservoir stocks to support the canals as boating traffic is increasing as well as a decrease in rainfall as we approach the summer months.

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
23 June 2023

Reservoir data presented is from the week ending Monday 12 June unless stated, along with data from the nearest comparable date in April and May.

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