

Reservoir Watch August 2023

Reservoir Group	June 2023 Holding	July 2023 Holding	August 2023 Holding	Change in July-August period	Minimum historical* August holding (Year)
Kennet & Avon Canal	87.9%	87.9%	87.9%	0.0%	61.3% (2004)
Oxford & GU	90.4%	85.5%	81.3%	-4.2%	40.3% (2011)
GU South	77.1%	72.0%	70.8%	-1.2%	59.9% (2022)
GU North	88.1%	82.4%	75.9%	-6.5%	24.8% (2011)
Lancaster Canal	83.3%	78.3%	85.9%	7.6%	30.0% (2018)
Leeds & Liverpool Canal	66.7%	52.8%	67.9%	15.1%	19.3% (2022)
Peak Forest & Macclesfield Canals	56.8%	50.5%	55.9%	5.4%	23.4% (2022)
Caldon Canal	82.9%	71.9%	78.7%	6.8%	39.4% (2022)
Huddersfield Narrow Canal	55.4%	51.4%	64.8%	13.4%	27.8% (2013)
Chesterfield Canal	27.6%	26.0%	26.9%	0.9%	32.6% (2022)
Grantham Canal	91.5%	91.2%	92.2%	1.0%	82.1% (2006)
Birmingham Canal Navigations	94.1%	92.9%	92.2%	-0.7%	22.0% (2011)
Staffs & Worcs, Shropshire Union	85.5%	84.5%	84.2%	-0.3%	58.2% (2010)

* 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, July was characterised as cool and unsettled. It was the third wettest July for the UK since 1939, and in some regions of England (North West, Yorkshire and Wessex) there was more than double the average rainfall. For the month as a while, rainfall was above average in most parts of the UK, with the monthly total for the UK being 170% of average. River flows at the beginning of the month were below average, however as the unsettled conditions were established, these river flows echoed rainfall patterns, with flows increasing to above average, with many rivers notably or exceptionally high in the north of England and west of the UK.

Soil moisture increased during July, with the month ending with close to saturation in regions in the north and west, whilst restoring exceptionally dry soils to near-normal in some regions in the south. However, there are still substantial Soil Moisture Deficit in some parts of the south and east regions, which is common in the summer months. Groundwater levels continued their seasonal recessions, except in the most responsive aquifers.

The unsettled conditions established in the month of July, continues into August with the Hydrological Outlook suggesting the continuation of above average river flows, groundwater, and soil moisture levels for much of the UK. However, continuous monitoring is required in areas that didn't benefit from the above average rainfall.

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/2023/7/2023_7_Rainfall_Anomaly_1991-2020.gif

The Trust's Water Resources

Of the thirteen of the Trusts reservoir groups, seven recorded increases in holding, and the remaining six showed both decreases or no change in holding. The reservoir group that showed no change was the Kennet & Avon.

In the southern reservoir groups, four of the five reservoir groups, showed a decrease in holding, the remaining reservoir group that did not show any change was the Kennet & Avon Canal and remained at 87.9%. The largest decrease was found in the Grand Union North with a decrease of -6.5%, this was followed by Oxford & GU with -4.2%, then Grand Union South with -1.2% and Birmingham Canal Navigation with a change of -0.7%.

Of the eight reservoir groups in the north, all but one showed an increase in holding, this was the Staffs & Worcs, Shropshire Union reservoir group with a decrease of -0.3%. The biggest increase in holding was found in the Leeds & Liverpool Canal with 15.1%, this was followed by Huddersfield Narrow Canal with 13.4%, then the Lancaster Canal, Caldon Canal, Peak Forest & Macclesfield Canal, Grantham Canal, and Chesterfield canal with 7.6%, 6.8%, 5.4%, 1.0% and 0.9% increases in holding respectively. The increases in holding in the Northern reservoir groups can be attributed to the high amounts of rainfall in the north in the month of July. On the other hand, despite the UK receiving above average rainfall, the decreases in holding in southern reservoir groups can be related to the increased usage of reservoir stocks to support the canals as boating traffic and canal demands increased.

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
24 August 2023

Reservoir data presented is from the week ending Monday 14 August unless stated, along with data from the nearest comparable date in June and July.

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