Reservoir Watch May 2023

Reservoir Group	March 2023 Holding	April 2023 Holding	May 2023 Holding	Change in April - May period	Minimum historical* May holding (Year)
Kennet & Avon Canal	87.9%	87.9%	87.9%	0.0%	78.3% (2022)
Oxford & GU	98.5%	99.7%	99.7%	0.0%	76.4% (2011)
GU South	80.7%	86.9%	83.4%	-3.5%	73.6% (2012)
GU North	99.9%	99.9%	99.9%	0.0%	75.4% (2011)
Lancaster Canal	100%	100.0%	96.9%	-3.1%	73.6% (2017)
Leeds & Liverpool Canal	91.5%	92.6%	87.5%	-5.1%	61.1% (2022)
Peak Forest & Macclesfield Canals	67.1%	70.7%	67.2%	-3.5%	39.6% (2022)
Caldon Canal	87.2%	98.6%	95.1%	-3.5%	77.2% (2013)
Huddersfield Narrow Canal	89.3%	84.2%	70.9%	-13.3%	53.1% (2022)
Chesterfield Canal	28.7%	28.4%	32.7%	4.3%	54.5% (2020)
Grantham Canal	91.7%	92.2%	92.4%	0.2%	93.1% (2022)
Birmingham Canal Navigations	97.6%	99.5%	99.8%	0.3%	36.0% (2011)
Staffs & Worcs, Shropshire Union	87.4%	87.8%	87.3%	**-0.5%**	71.3% (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, April was typical of the season with periods of fine weather as well as numerous interruptions of unsettled weather, especially mid-April. Rainfall for the UK during April was average, however this varied geographically with southern and eastern England being significantly wetter than average and Wales being below average. River flows echoed rainfall patterns, with widespread rainfall between the 11th and 14th resulting in flows above average, especially in southern and eastern areas of England.

Soil moisture levels continue to be high for this time of year, with lowest levels mainly observed on eastern coasts and East Anglia. Groundwater levels increased at most Chalk sites resulting in above normal levels, several with exceptionally high levels which was a significant change from the average levels in the previous month.

As we go into the coming months, we can expect there will be an increased likelihood of wetter conditions, which means that the water resource situation may remain healthy.

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/2023/4/2023_4_Rainfall_Anomaly_1991-2020.gif

The Trust's Water Resources

Of the thirteen of the Trusts reservoir groups, seven recorded decreases in holding whilst three recorded increases and three remained the same. The largest change in the water resources came from the Huddersfield Narrow Canal, which decreased by 13.3%.

In the south, only one of the five reservoir groups recorded an increase in holding, this was the BCN with an increase of 0.3%. Additionally, one reservoir group recorded a decrease, this was the GU South, which decreased by 3.5%. The other three reservoir groups, Kennet & Avon, Oxford and Grand Union and the Grand Union North remained the same with holdings of 87.9%, 98.5% and 97.6% respectively, this can be attributed to the increased average rainfall in the southern regions resulting in these reservoir groups maintaining their percentage holdings through the early drawdown phase.

Of the eight reservoir groups in the north, two recorded an increase in holding, the greatest increase was the Chesterfield reservoir group with a 4.3% increase, this was followed by Grantham with an increase of 0.2%. The other six reservoir groups recorded decreases in percentage holding, the largest decrease was recorded in the Huddersfield Narrow Canal with a decrease of 13.3%, this decrease can be attributed to the increased usage of Diggle reservoir to supply the canal. The second largest decrease was recorded at Leeds & Liverpool with a 5.1% decrease. Lancaster, Peak Forest and Macclesfield, Caldon, and Staffs, Worcs and Shropshire Union recorded decreases of 3.1%, 3.5%, 3.5% and 0.5% respectively, this can be attributed to increased usage of reservoir stocks to support the canals as boating traffic increased and 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:.

Issued by:
Water Management Team, Canal & River Trust
08 June 2023

Reservoir data presented is from the week ending Monday 15 May unless stated, along with data from the nearest comparable date in March and April.

Annex 1 – Canal & River Trust reservoir groups

Group name	Reservoirs within group
Kennet & Avon Canal	Crofton [*principally a spring-fed reservoir, and its yield is therefore greater than the storage volume indicates*]
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