

Reservoir Watch April 2024

Reservoir Group	February 2024 Holding	March 2024 Holding	April 2024 Holding	Change in March-April period	Minimum historical* March holding (Year)
Kennet & Avon Canal	96.4%	91.7%	95.70%	4.0%	59.1% (2012)
Oxford & GU	99.9%	99.8%	99.60%	-0.2%	58.2% (2012)
GU South	88.6%	93.4%	87.30%	-6.1%	61.8% (2012)
GU North	99.9%	99.9%	99.90%	0.0%	44.3% (2012)
Lancaster Canal	100.0%	100.0%	100.00%	0.0%	95.4% (2013)
Leeds & Liverpool Canal	79.2%	87.2%	86.80%	-0.4%	76.3% (2009)
Peak Forest & Macclesfield Canals	73.7%	73.3%	73.40%	0.1%	43.9% (2022)
Caldon Canal	89.6%	95.5%	97.80%	2.3%	80.9% (2013)
Huddersfield Narrow Canal	74.7%	71.1%	69.10%	-2.0%	61.9% (2021)
Chesterfield Canal	39.0%	31.6%	31.20%	-0.4%	27.5% (2023)
Grantham Canal	92.4%	93.7%	92.40%	-1.3%	92.2% (2023)
Birmingham Canal Navigations	97.3%	97.9%	98.10%	0.2%	39% (2012)
Staffs & Worcs, Shropshire Union	53.2%	69.8%	79.40%	9.6%	76% (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, March was an unsettled and mostly wet month, despite there being drier interludes and spatial variation in rainfall. The March rainfall for the UK was 127% of average with the south being notably wet, large areas of central southern England saw around double the typical March rainfall. The wet March adds to the long run of months with above-average rainfall. Following this above-average rainfall, river flows in March were significantly above average for south England. Elevated flows and heavy rainfall in the first week, resulted in widespread flood alerts across England.

After the wet winter, groundwater levels remained higher than normal for the time of year across soil moisture levels were high at the majority of sites and remained so through March. Soil Moisture Deficits (SMDs) remained zero or negligible across all aquifer areas, which enabled further recharge in responsive aquifers.

The current UK Hydrological Outlook indicates that flood risk remains elevated due to the above-normal river flows and levels and a wet start to April.

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/2024/3/2024_3_Rainfall_Anomaly_1991-2020.gif

The Trust's Water Resources

Despite the wet conditions observed, there are several reasons why all the Trusts reservoir groups are not completely refilled. The primary factor will be for reservoirs within a group having engineering works taking place that require the reservoir level to be maintained at less than full capacity (i.e. held down). Examples of this include Toddbrook Reservoir (Peak Forest & Macclesfield Canal group) which is kept at -12m below Top Water Level following the spillway incident in summer 2019, and it will remain at this level until the £multi-million project to construct a new spillway is completed. Harthill and Pebley Reservoirs (Chesterfield Canal group) are held down whilst a new spillway is constructed for Harthill Reservoir. Several of the reservoirs in the Leeds & Liverpool and Huddersfield Narrow Canal group are being held down for investigation or engineering works. Belvide Reservoir (Staffs & Worcs, Shropshire Union group) was lowered for engineering works but has begun to partially refill in recent weeks. Wilstone, Marsworth and Startopend Reservoirs (Grand Union South group) were lowered to undertake reservoir works. For the Leeds & Liverpool Canal the works at Barrowford Reservoir are nearing completion and a phased period of refill and testing of the works is in progress. The Trusts Reservoir, Project Management and Water Management teams liaise closely to manage the implications of all of these works on water supplies for the canal network, given the potential impacts on boating customers.

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
29 April 2024

Reservoir data presented is from the week ending Monday 15 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