

Reservoir Watch December 2021

Reservoir Group	October 2021 holding	November 2021 holding	December 2021 holding	Change in November-December period	Minimum historical* December holding (Year)
Kennet & Avon Canal	82.4%	80.1%	81.9%	1.8%	50.1% (2011)
Oxford & GU	50.8%	53.0%	71.8%	18.8%	21.4% (2011)
GU South	72.1%	68.5%	67.0%	-1.5%	32.0% (2011)
GU North	53.1%	66.0%	89.7%	23.7%	18.7% (2003)
Lancaster Canal	72.5%	72.5%	72.5%	0.0%	95.6% (2014)
Leeds & Liverpool Canal	32.8%	54.6%	70.0%	15.4%	53.6% (2003)
Peak Forest & Macclesfield Canals	42.8%	41.5%	48.4%	6.9%	45.9% (2003)
Caldon Canal	56.9%	87.2%	81.4%	-5.8%	33.6% (2003)
Huddersfield Narrow Canal	61.5%	99.8%	100.0%	0.2%	16.7% (2013)
Chesterfield Canal	41.8%	47.9%	50.2%	2.3%	44.1% (2020)
Grantham Canal	80.3%	82.5%	93.5%	11.0%	78.4% (2011)
Birmingham Canal Navigations	84.6%	90.0%	92.9%	2.9%	16.0% (2011)
Staffs & Worcs, Shropshire Union	85.0%	96.1%	87.4%	-8.7%	54.7% (2001)

* for the purposes of this analysis, historical holdings cover 1998-2021 reservoir holding data, inclusive.

General Conditions

According to the UK Centre for Ecology and Hydrology, November was a 'wintery' but generally settled month with little appreciable rainfall. However, Storm 'Arwen' brought significant wind damage after a rare red weather warning was issued in parts of the UK on the 26th/27th November. This resulted in hundreds of thousands of homes being without power for several days across northern England, and unfortunately the loss of three lives. Rainfall in the UK was less than 2/3 of the average for the month, with southern England experiencing exceptionally dry conditions. As a result, soil moisture and river flows were in the normal to notably low range, and groundwater levels fell although remained predominantly in the normal to above normal range. Despite the dry month, the water resource situation entering the winter remains healthy, with outlooks suggesting above normal flows in northern areas, and a wetter start to December resulting in an elevated flood risk in the short term.

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

https://www.metoffice.gov.uk/pub/data/weather/uk/climate/anomalygraphs/2021/2021_Rainfall_Anomaly_1981-2010.gif

https://www.metoffice.gov.uk/pub/data/weather/uk/climate/anomacts/2021/11/2021_11_Rainfall_Anomaly_1981-2010.gif

The Trust's Water Resources

With the main boating season over, seven of the 13 reservoir groups have a holding above 80%, with three above 90%. This is typical for the time of year as the reservoirs begin to recover from the increased demands on canals throughout the boating season.

Four of the five southern reservoir groups experienced an increase in holding, with the Grand Union North reservoir group and the Oxford and Grand Union reservoir group experiencing very high increases of 23.7% and 18.8%, respectively. This is most likely due to the wet start to December experienced across much of the UK. Three of the five are now at above 80% holding, and one is above 90%. Only the Grand Union South reservoir group experienced a decrease in holding of 1.5%.

Five of the eight northern reservoir groups experienced increases in holding; the Leeds & Liverpool Canal group experienced the greatest increase of 15.4%, followed by the Grantham Canal group with an increase of 11.0%. The Huddersfield Narrow Canal group experienced a small increase of 0.2% bringing its total holding up to 100.0%. Although Slaithwaite Reservoir (in the Huddersfield Narrow Canal group) is continuing to be held down, it has begun refilling for monitoring purposes. This may explain in part why this reservoir group has continued to see an increase in holding. Two reservoir groups experienced a decrease in holding, with the Staffordshire, Worcestershire and Shropshire Union Canal group showing the greatest decrease of -8.7%, followed by the Caldon Canal group at -5.8%. The Lancaster Canal group remained the same as in November. The dry month of November followed by a wet start to December may go some way to explaining the combination of both increases and decreases in reservoir holdings across the network.

The Chesterfield Canal group remains at its lowest historical holding due to ongoing engineering works at Harthill, also affecting Pebley, which requires both reservoirs to be held down. 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 December 2021

Reservoir data presented is from the week ending Monday 13 December unless stated, along with data from the nearest comparable date in October and November.

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