



Reservoir group	Oct 2017 holding	Nov 2017 holding	Dec 2017 holding	Change in Nov - Dec Period	Minimum historical* Dec holding (Year)
Kennet & Avon Canal	73.1%	71.0%	82.3%	+11.3%	54.2% (2011)
Oxford & GU	39.5%	36.1%	45.9%	+9.8%	23.0% (2011)
GU South	50.9%	48.4%	55.9%	+7.5%	33.2% (2011)
GU North	34.1%	36.8%	48.6%	+11.8%	20.7% (2003)
Lancaster Canal	93.1%	96.9%	97.1%	+0.2%	97.1% (2016)
Leeds & Liverpool Canal	88.2%	88.9%	99.2%	+10.3%	54.5% (2003)
Peak Forest & Macclesfield Canal	83.7%	90.4%	100.0%	+9.6%	55.9% (2010)
Caldon Canal	73.6%	74.6%	81.4%	+6.8%	46.1% (2003)
Huddersfield Narrow Canal	99.9%	100.0%	100.0%	0%	16.7% (2013)
Chesterfield Canal	59.1%	55.2%	62.2%	+7.0%	49.6% (1998)
Grantham Canal	98.0%	97.9%	99.1%	+1.2%	78.9% (2011)
Birmingham Canal Navigations	59.5%	60.4%	63.7%	+3.3%	16.4% (2011)
Staffs & Worcs, Shropshire Union	86.8%	86.2%	89.9%	+3.7%	55.7% (2001)

* for the purposes of this analysis, historical holdings cover 1998-2017 reservoir holding data, inclusive.

According to the Centre for Ecology & Hydrology, November was another unsettled month, particularly in the west, with wintry conditions towards month-end in the east. November rainfall was moderately below average for the UK overall (91%). It was particularly dry in the Midlands and south-east England, with parts registering less than half the November average rainfall. In contrast, more than 150% was registered in localised areas, including north-west England. Despite the wet start, autumn (September-November) rainfall was near-average at the national scale but this masks the regional variations: Thames and Southern regions recorded less than 70% of long-term average rainfall, while the North West region recorded 125%. While summer was damp for much of the UK, the dry autumn adds to notable long-term deficiencies which also reflect the dry conditions from late summer 2016 to late spring 2017.

Groundwater levels remained substantially below normal across southern and eastern England. With limited recharge in the autumn, and depressed runoff in some parts of the south, the long-term water resources outlook will depend on rainfall over the winter and early spring. Given current groundwater levels, which reflect rainfall deficiencies built up over the last 12-18 months, appreciably above average winter rainfall will be needed to return conditions to the normal range. Conversely, a continuation of the dry weather, amounting to a second successive dry winter, would increase the potential for environmental and water resources stress in 2018.

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

http://www.metoffice.gov.uk/pub/data/weather/uk/climate/anomalygraphs/2017/2017_Rainfall_Anomaly_1981-2010.gif

https://www.metoffice.gov.uk/pub/data/weather/uk/climate/anomacts/2017/11/2017_11_Rainfall_Anomaly_1981-2010.gif

Except for the Huddersfield Narrow Canal reservoir group (which was already full), the remaining 12 groups all observed an increase in holding over the reporting period, albeit relatively modest in comparison to refill that would be typically expected during a winter period.

Four of the five reservoir groups that enjoyed the most refill were southern groups, a remarkable turnaround in events given the recent dry weather in the region. Of particular note, is storage in the GU North group (comprising Saddington reservoir), which has now shown a good increase in holding (of 11.8%), resulting from ongoing closure of a short section of the GU Leicester Line but more notably by the recent snowmelt and rainfall in the past week or so. Furthermore, the Kennet & Avon Canal, Oxford & GU and GU South reservoir groups saw respective rises of 11.3%, 9.8% and 7.5%, and almost all of this has been observed within the past week, as the preceding weeks had shown very little reservoir refill.

Barring the Chesterfield Canal reservoir group, the remaining six northern groups are all in a healthy position, standing at least 80% full. Holdings in both Midlands groups saw a marginal increase of a few percent, and the BCN group holding remains of some concern given the planned, and essential, engineering works taking place that have required some of the reservoirs in this group to be drawn down significantly, against the backdrop of the generally low rainfall. The water resources situation across the Trusts network has improved, which is encouraging to see as we approach the end of the year but significantly more refill is still needed for the southern and midlands reservoir groups for the 2018 boating season to start in a strong position. We will continue to monitor all reservoir holdings and their subsequent recovery, and may need to implement further measures as appropriate.

For more information on our programme of winter open days, see:

<https://canalrivertrust.org.uk/enjoy-the-waterways/events/open-days/open-day-events-2017-18>

Boaters are advised to sign up for email notifications of any waterway restrictions or closures at:

<http://canalrivertrust.org.uk/notices>

Issued by:

Water Management team, Canal & River Trust
19th December 2017

Reservoir data presented is from week ending **Monday 18 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>this is a principally 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