

Water Management: External Briefing Note

Produced by:	Water Management Team	Date:	04/04/2024
		Data based on:	18 /03/2024

REGIONAL WATER RESOURCES POSITION STATEMENT (North West, Yorkshire North East & West Mids)

Hydrological Summary/Outlook

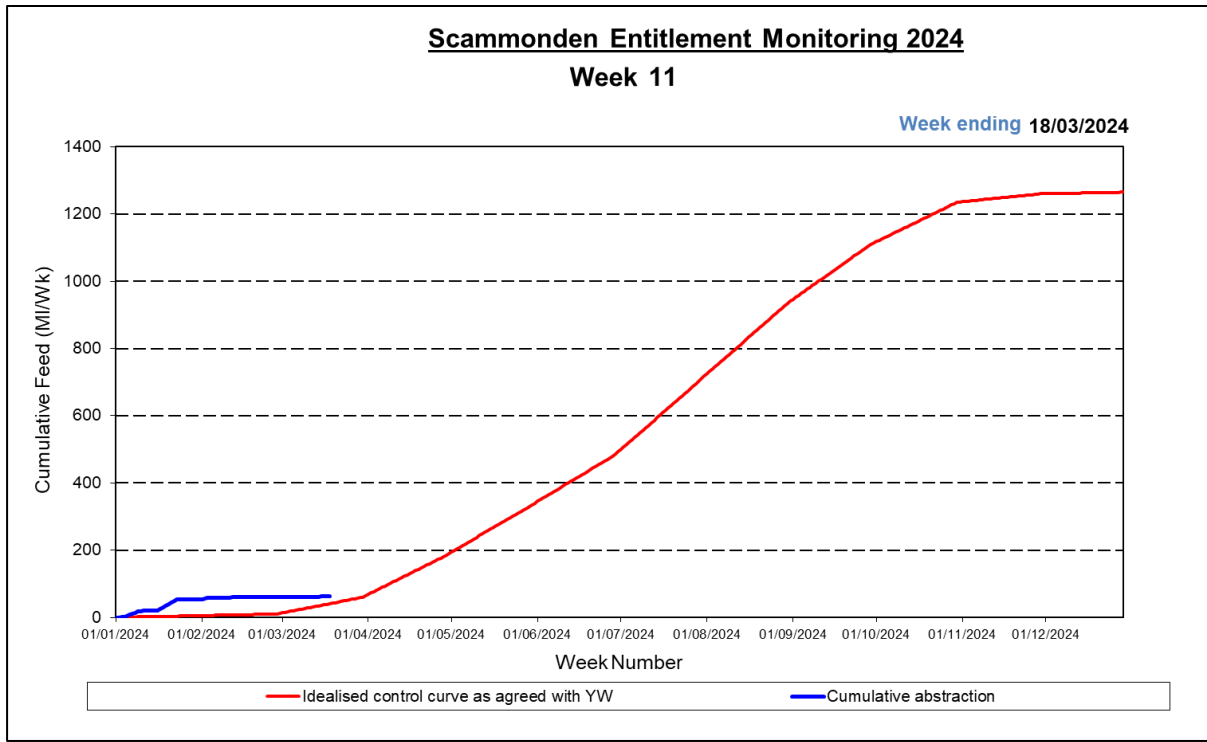
February 2024 was the fourth wettest in England, with records dating back to 1871. North-west England received 175% of its long-term average (LTA) rainfall in February, with the north-east receiving 145% and central England receiving 226%. During the first half of March (up to 12 March), the rainfall has continued, with north-west and north-east regions each receiving 41% of their LTA, and central England receiving 56%. As a result, many of our reservoirs have seen really positive refill. River flows have also increased across the central and northern regions with all sites classed as normal or above for this time of year. For more details see: [Rainfall & River flow data](#).

However, although we have seen positive refill in most of our reservoirs, some areas are still at risk due to the need to 'hold down' a small number of critical reservoirs for engineering works – keeping the water in the reservoirs below a certain level. This has impacted the potential for refill and thus water resource availability for the canals they supply. We are working closely with our engineering teams and independent reservoir engineers to minimise the disruption where possible, such as through the timing of the works or the development of flood forecasting systems.

Huddersfield Narrow Canal

The Huddersfield Narrow Canal (HNC) summit is supported by two main feeds, Diggle Reservoir which feeds into the west side of the summit pound/Standedge Tunnel (upstream of lock 32W), and the Scammonden pipeline (an annual entitlement provided by Yorkshire Water) which feeds into the east side of the summit/Standedge Tunnel, just upstream of lock 42E. Diggle Reservoir is currently at maximum holding ahead of the season due to recent wet weather. However, Slaithwaite Reservoir which supplies the east side of the canal is currently being held down for leakage monitoring and engineering works which has significantly impacted HNC reservoir stocks. So far, the Trust's usage of the Scammonden entitlement is slightly higher than idealised usage and last year's usage at this current time. However, usage in recent weeks has been low which has enabled us to return towards idealised levels ahead of the season (See graph 1 below). We have been in communication with Yorkshire Water regarding their supplies at Scammonden, and they have assured the

Trust that they have no current concerns ahead of the season. The Trust will remain in close contact with Yorkshire Water to manage any change throughout the season.



Graph 1 - Scammonden pipeline 2023 feed to date (18 March)

The HNC reservoir group holding is currently considerably below the long-term average due to the planned drawdown of Slaithwaite and Black Moss Reservoirs. However, if a hot dry summer is experienced, the Scammonden entitlement provided by Yorkshire Water may not be provided in full and this, along with the Trust’s reservoirs, may not be sufficient to support canal demands throughout the season.

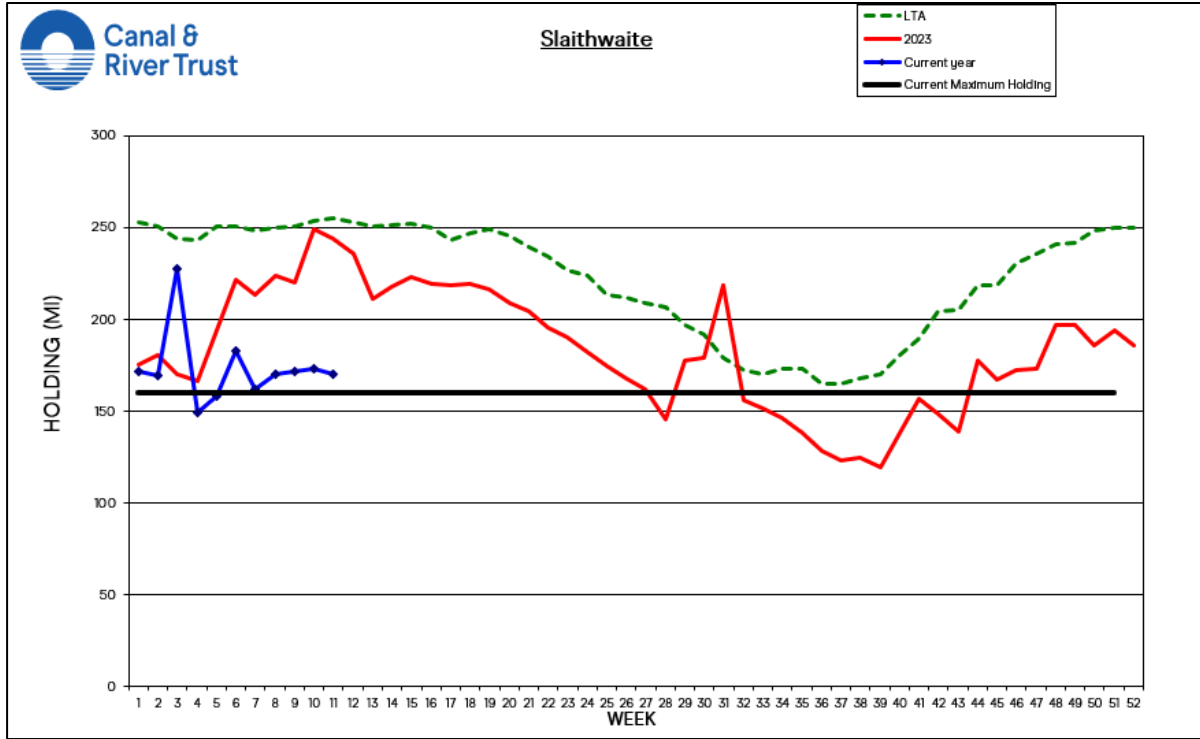
The available resources will be used to support navigation and safeguard canal infrastructure, the environment and fish in both the canal and reservoirs throughout the summer.

HNC East

The HNC east side is typically impacted by lack of water resources to a greater extent than the west side. Engineering works have been completed on the east side of the HNC to minimise known losses and keep the limited water in the canals. Despite works at Lock 1E, issues with losses continue and will require management throughout the season.

Slaithwaite Reservoir is being held down for leakage monitoring and engineering works. The reservoir is now in the process of being drawdown further for a short period of works beginning on the 25 March which requires more significant drawdown. These works should last around a week before the reservoir can begin to refill. Following the conclusion of the season the reservoir will be drawn down ahead of significant engineering works in 2025. As

can be seen in graph 2, the level has been managed by the operational team following recent high rainfall and will be drawn down to the agreed target holding.



Graph 2 - Slaithwaite reservoir holding (most recent level recorded on 18 March).

The pumps at Britannia Bridge, between locks 12E and 13E, are not currently running as recent weather patterns have meant that these pumps have not yet been required this season. The financial implications of early usage of the pumps will be carefully considered this year in the current financial climate, however, if required, these pumps will be available to support the canal. Their requirement will be carefully monitored by the local operational teams and the water management team.

The pumps at Britannia Bridge are licenced under the Water Act 2003 regulations and carry some abstraction restrictions depending on nearby river flows. Our abstraction licence allows us to pump from the River Colne between March and September as long as the river flows do not drop below the Hands-Off Flow (HOF) of 27.13 MI at Longroyd Bridge. If the river levels subside beyond this threshold, the abstraction from the pumps must cease. To manage this and reduce the likelihood of a HOF being issued we have an established method of operation in place as, if a HOF were to be issued, this would place additional pressure on the reservoir resources. The Trust has applied to the Environment Agency to remove the seasonal restriction and enable abstraction all year.

What are we doing about it?

Following discussions with stakeholders, it is expected that the HNC will begin the season with booked passage through the Standedge Tunnel from the start of the season to conserve and manage water resources effectively. Additionally, to limit water losses at Lock

1E, operating hours will be put in place to manage resources in this section of the canal. A link to restriction notices on the HNC are available on the Trust's website with detailed information and operating hours in effect on the east side [here](#). Passage through Marsden flight – Lock 42E to 32E will also need to be booked, and is only available with a Standedge Tunnel booking – more information [here](#). Our teams will closely monitor the water resource situation and, if deemed necessary, the heightening of restrictions will be considered.

Rochdale

The Rochdale Canal has approximately 15 controlled and numerous uncontrolled feeders entering predominantly on the eastern side of the canal. Many of the controlled feeders along the Rochdale Canal, including Luddenden Foot Pump, are now licensed under the Water Act 2003 regulations and have Hands Off Flow (HOF) conditions, which may result in the Trust reducing or ceasing abstractions when instructed by the Environment Agency due to low flows in the River Calder (typically following prolonged dry weather). The Rochdale Canal is also supplemented with a pumped abstraction between Locks 15 and 16 from the River Calder using temporary pumps. These pumps also have Water Act Licence conditions including a HOF and a seasonal limit, where they can only be used between April and October inclusive. These pumps cannot be used until April, and the Trust is still looking to reach an agreement with Yorkshire Water to house the pumps on their secure site at a nearby water treatment works, to limit the impact of anti-social behaviour resulting in associated increased costs. Once required, the financial implications of early usage of the pumps will be carefully considered this year in the current financial climate, however, if required, these pumps will be available to support the canal. Their requirement will be carefully monitored by the local operational teams and the water management team. The Trust will be applying to the Environment Agency to remove the seasonal restriction and enable abstraction all year once a more secure location has been confirmed to house the pumps.

Chelburn Reservoir and Hollingworth Lakes, owned by United Utilities, also provide a feed into the canal in the form of an annual entitlement. The amount of water the Trust can receive from Hollingworth Lake and Chelburn Reservoir are detailed in the table below.

Table 1 - Water resource entitlements from Hollingworth Lake and Chelburn.

	Winter entitlement (1 st November to 30 th April)	Summer Entitlement (1 st May to 31 st October)
Hollingworth Lake	No more than 357.7 MI in any 42 consecutive day period. No more than 39.7 MI in any 7 consecutive day period	Total of 1568.3 MI No more than 136.3 MI in any 7 consecutive day period.
Chelburn Reservoir	No more than 205 MI in any 42 consecutive day period. No more than 51 MI in any 7 consecutive day period.	Total of 900 MI No more than 91 MI in any 7 consecutive day period.

What are we doing about it?

The Trust has submitted an application to the Environment Agency to vary the abstraction licence condition for a feeder which supplies the summit pound. It is hoped that the outcome of this variation will allow a greater supply to the canal. However, it is unlikely that the outcome of this application will benefit the supply to the canal during 2024.

Due to ongoing issues with water loss at Lock 8, works will be undertaken between easter and mid-May to repair the lock, which will require a stoppage during this period. It is hoped these works will help to alleviate water level issues in this section of the canal.

A booking system at Tuel Lock will be in place from 18 March 2024 until the end of the season. A Canal & River Trust lock keeper will be present on Fridays, Saturdays, Sundays and Mondays: passage will be between 8am and 3pm on Fridays and Mondays, and 10am and 3pm on Saturdays and Sundays. This is being done to manage and protect water resources in this section of the canal. Given the planned works at Lock 8, there will not be restrictions in place at the start of the season, however, following the completion of works, the requirement for restrictions at Locks 8 & 9 will be reviewed. This will be done to ensure the protection and conservation of water resources within the canal. These restriction notices can be found [here](#).

The season will begin with A booking system in place for Lock 37 (summit), where boats will be able book 7 days a week.. This will encourage the pairing up of boats to conserve water during lock operation, reducing the strain on the canal's resources further information can be found [here](#).

Recent rainfall has enabled the canal to remain in a strong position going into the start of the summer boating season. However, due to the sensitive nature of the canal, it is important to conserve water from the Chelburn and Hollingworth summer entitlements to protect the canal in the event of dry weather limiting water supply later in the season. The water management team will continue to monitor the water resource situation closely with the region.

A link to restriction notices on the Rochdale canal are available on the Trust's website. Details of the operating hours in effect at Tuel Locks can be found [here](#) and operating hours and booking system at Tuel Lock can be found [here](#).

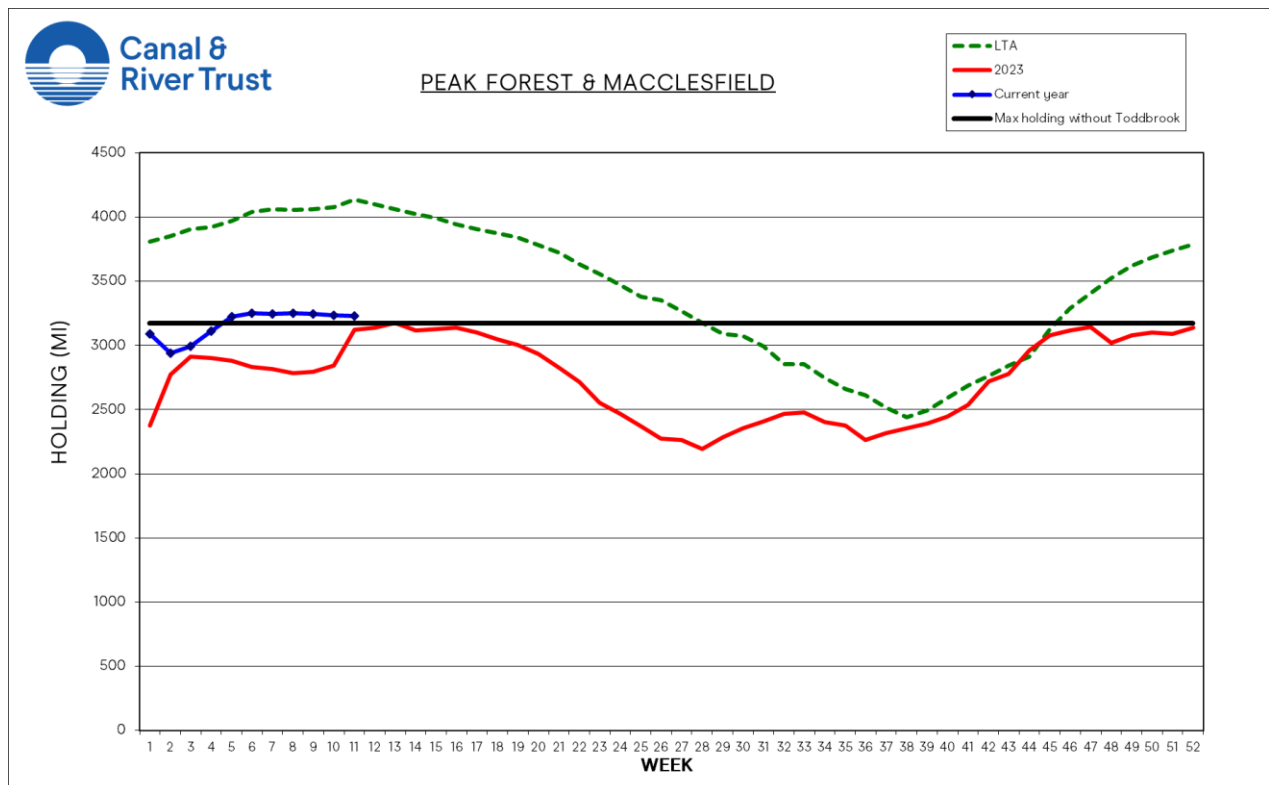
Peak Forest and Macclesfield Canals

The Peak Forest and Macclesfield canals are usually supplied by four reservoirs (Toddbrook, Combs, Bosley and Sutton), which all feed into the summit. Toddbrook has been offline since the spillway incident in 2019. Therefore, although rainfall in the northwest over the past few months has replenished the reservoir holdings supplying the Peak Forest and Macclesfield canals (table 2), we are still without the supply from Toddbrook Reservoir whilst repairs continue there. This means that whilst the water resource situation is currently relatively 'healthy', we are unable to guarantee a supply throughout the year.

In addition to the ongoing works at Toddbrook, there are some minor works being carried out on Combs feeder. During these works, the feeder is not able to be used to supply the canal. However, we expect the feeder to be operable soon once drier weather allows for these works to be completed.

In recent years, we successfully minimised canal closures by introducing limited operating times on the locks. However, the current year brings new challenges with the closure of the Marple Flight due to emergency repairs to Lock 7 (see closure notice [here](#)).

In light of these circumstances, we are not reducing operating hours on the Bosley Flight on the Macclesfield Canal at this time. Our teams remain vigilant, continually monitoring reservoir holdings throughout the season. We aim to provide a minimum of two weeks' notice before introducing reduced operating times, similar to previous years, to ensure the sustainable use of the limited water available.



Graph 3 – Latest summit reservoir holdings on the Peak Forest & Macclesfield Canals (data from 18 March)

Table 2- Peak Forest & Macclesfield reservoir data from 18 March

Reservoir	Total Capacity (MI)	Current holding (MI)	% Available
Toddbrook	1,238	0	0%
Combs	1,363	1,363*	100%*
Bosley	1,462	1,463	100%
Sutton	346	331	95.6%
Group Total	4,409	3,157	71.6%

**Unable to supply canal until minor works have been completed*

What are we doing about it?

Our teams will continue to monitor the reservoir holdings and canal demands throughout the season and if necessary, introduce operating times on Bosley and Marple Lock flights.

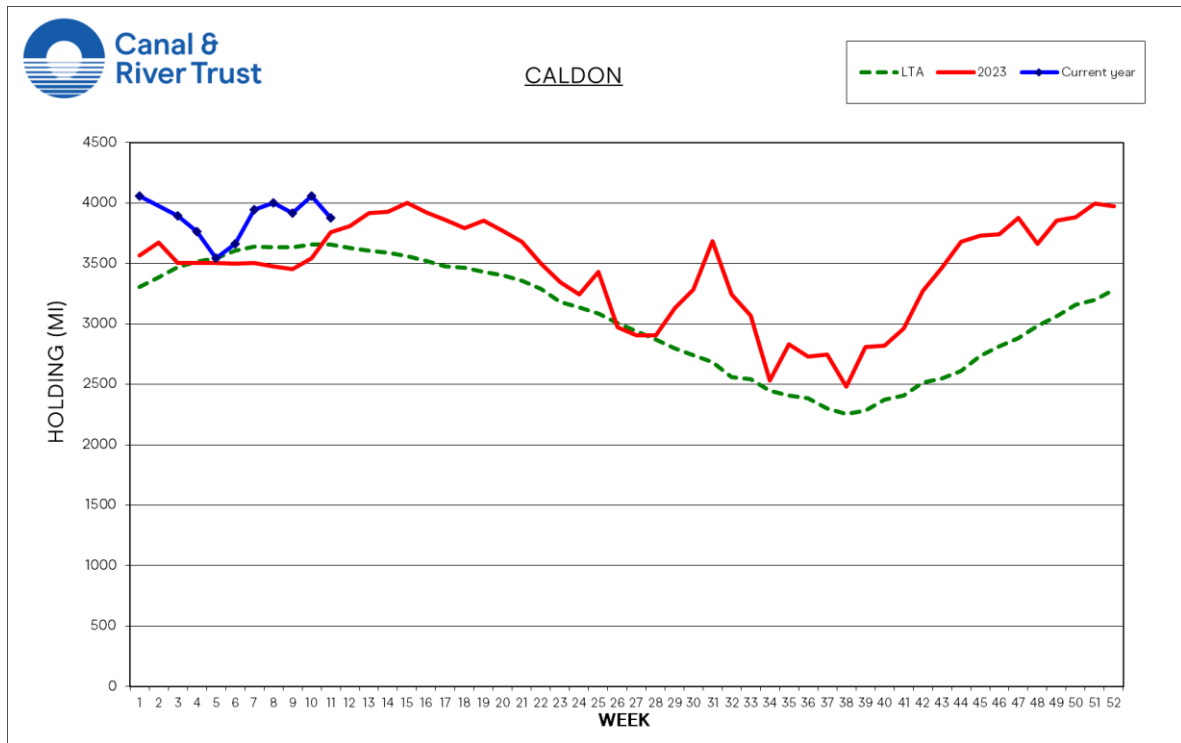
Caldon and Trent & Mersey

The Caldon Canal is supplied by three reservoirs (Rudyard, Knypersley and Stanley). The Caldon reservoirs are also used to supply the Trent & Mersey summit along with the Peak Forest and Macclesfield reservoir group.

At present repair works are being undertaken along Rudyard feeder following a sluice failure. It is anticipated that repairs will be complete within the coming weeks. Additionally, works will be undertaken at Knypersley Reservoir once the reservoir is naturally drawn down to a suitable safe holding.

The water resource constraints associated with the Peak Forest and Macclesfield reservoirs may result in lower feeds entering the Trent & Mersey along the Bosley flight. This in turn will require additional supply from the Caldon group reservoirs via Bedford Street, which may not be sustainable in a dry season. Reduced supply to the Trent & Mersey can result in low levels in the summit, causing issues at Harecastle Tunnel, and can arise with very little lead time. This can also impact lower lock flights, but this is not an immediate concern as reservoir stocks for the Caldon and PF&Mac group are currently healthy.

The graph below shows the reservoir group holding as of 18 March 2024 in comparison to the long-term average (LTA), which covers the period 1998 – 2022, and the resource position last year. From this graph, the current reservoir group holding is 123 Ml more than this time last year and is also above the LTA.



Graph 4 - Latest summit reservoir holdings on the Caldon Canal (data from 18 March)

What are we doing about it?

Our teams will continue to monitor the reservoir holdings and canal demands throughout the season and, if necessary, introduce operating times on relevant locks.

Leeds & Liverpool Canal

Reservoir resources on the Leeds & Liverpool Canal have seen a positive response to the recent rainfall throughout the first few months of the year. Due to numerous reservoir safety works planned on some reservoirs, precautionary drawdowns have been instructed, restricting the available maximum capacity.

Winterburn Reservoir is currently spilling so is being used as the primary feed for the canal when required, although the natural surface water feeds are currently healthy, meaning demands are low. Due to the valve replacement works, once the reservoir comes off spill, over pumping is in place to supply the compensation and the feed to the canal.

Lower Foulridge, Upper Foulridge and Slipper Hill are all being held down as a precaution, in preparation for major reservoir maintenance works. Regional teams are managing this drawdown to maximise the resource available for the start of the summer boating season. Repair works to the upper draw off at Lower Foulridge are planned once the reservoir is naturally drawn down during the season, though this will not impact on the supply from the reservoir.

Whitemoor Reservoir is refilling and expected to be full for the start of the summer boating season. Works to repair the lower draw off are due to be complete once the reservoir is naturally drawn down to a suitable safe holding later in the year.

Barrowford and Rishton Reservoirs supply the west side of the Leeds & Liverpool Canal only. Barrowford has commenced its staged refilling following major engineering works over the past few years. As the reservoir has to be refilled slowly, in phases, with periods of monitoring, we hope to have this resource available later in the year. Refill is being achieved from the natural feeder inflows into the canal so as not to impact on reservoir resources at this stage of the season. Rishton is historically slow to fill due to its catchment characteristics, however, due to recent wet weather it is also now spilling.

Tables 3 and 4 show the latest recorded resources in the non-summit and summit reservoir groups, respectively.

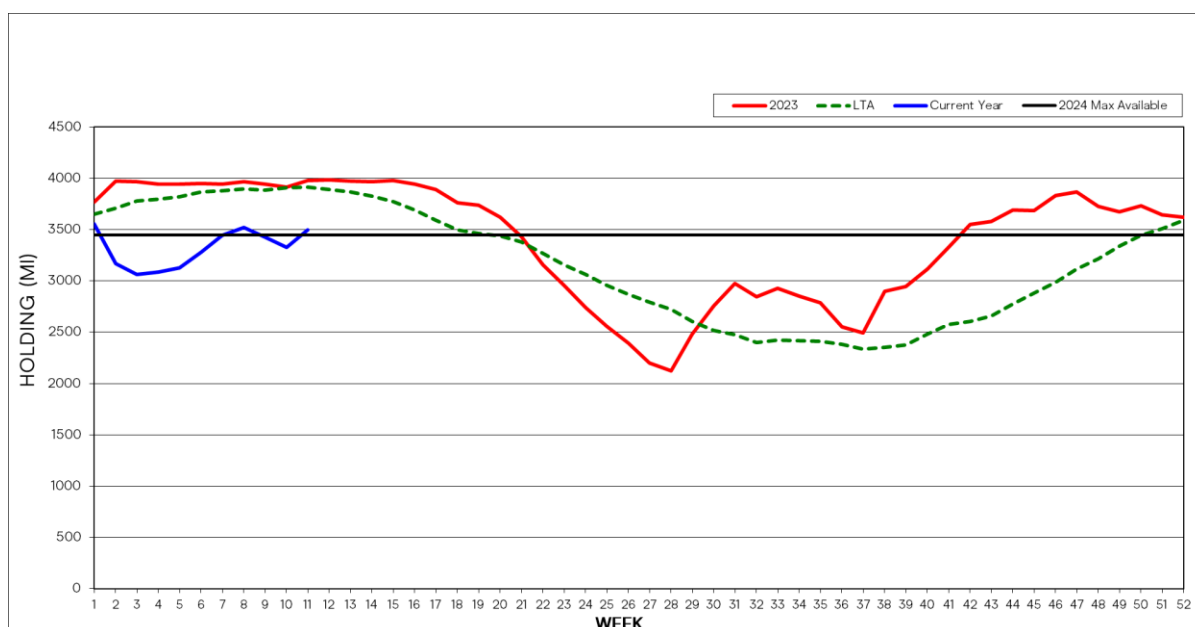
Table 3 - Leeds and Liverpool non-summit reservoir data from 18 March.

Reservoir	Total Capacity (MI)	Current holding (MI)	% Available
Rishton	584	584	100%
Barrowford	343	221	65%
Total	927	805	87%

Table 4 - Leeds and Liverpool summit reservoir data from 18 March.

Reservoir	Total Capacity (MI)	Current holding (MI)	% Available
Lower Foulridge	1554	1247	74%
Upper Foulridge	466	331	66%
Slipper Hill	167	101	67%
Whitemoor	670	669	91%
Winterburn	1150	1150	100%
Total	4008	3497	87%

The graph below shows the group holding for the summit reservoirs (Winterburn, Whitemoor, Lower Foulridge, Upper Foulridge and Slipper Hill) as of 18 March 2024 in comparison to the long-term average (LTA), which covers the period 1998 – 2022, and the resource position last year. The maximum amount of summit reservoir water resource available in 2024 is indicated by a solid black line on the graph below.



Graph 5 - Latest summit reservoir holdings on the Leeds & Liverpool Canal (data from 18 March)

What are we doing about it?

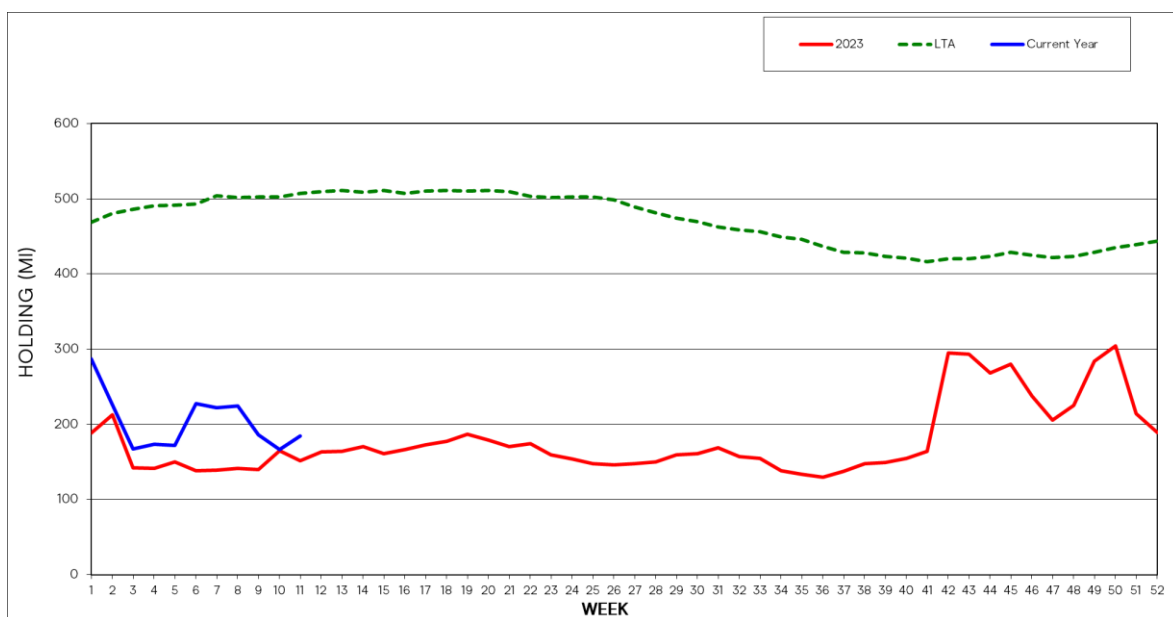
The aim of the agreed operating hours is not to limit the number of boaters but to maximise efficiencies and reduce the risk of accidents and wastage, to protect our water resources and infrastructure, and prolong the summer boating season. We will review these operating hours continuously and, if needed, we will consider enhancing them and introducing additional restrictions. Significant reduction in water use could delay any potential closure later in the season.

A link to the restriction notice with detailed information on which locks are available and when can be found on the Trust's website by clicking [here](#).

Chesterfield Canal

The Chesterfield Canal is supplied by two reservoirs, Harthill and Pebley. Major engineering works are continuing at Harthill to upgrade the spillway and ensure the reservoir remains safe for many years to come. Further information on this project can be found [here](#).

As a result of these works, Harthill is currently empty, and Pebley's holding is reduced to ensure we protect the works from any rainfall events. This means we start the 2024 season at a reduced holding (group holding at just 30%), which will likely impact on the canal as we progress through the season. The graph below shows the group holding this year, compared with 2023 and the LTA.



Graph 6 - Latest reservoir group holdings on the Chesterfield Canal (data from 18 March)

Historically, the Chesterfield Canal is able to sustain navigation through surface water feeds for the first part of the season. The reservoir resources are normally only utilised after a period of low rainfall when natural flows in the canal feeder reduce. We will aim to keep the canal summit open for as long as possible unrestricted using these surface water feeds and supplementing this as required with the little reservoir resource available in Pebley. If we do experience high demands, or a very dry summer, then it is expected the canal summit will have to close with very short notice as the surface water feeds reduce. We will monitor this regularly and inform customers of any updates with as much notice as possible via the restriction notices page, which can be found by clicking [here](#).

Wider consequences for other canals

There is the potential for wider implications for canals further afield which receive an indirect supply of water from those mentioned in this position statement. We will continue to consider these wider implications and continue monitoring the water resource impacts as the season develops.

Ashton Canal

The Ashton Canal may be impacted by the reduced water resource availability from the Peak Forest & Macclesfield reservoirs, with lower feeds entering via the Lower Peak Forest Canal. Also, the resource constraints impacting the HNC may also result in a reduced supply to the Ashton Canal from the HNC west. However, as the HNC west receives several substantial surface water inflows which are currently looking healthy, this is not an immediate concern and thus there are no current plans to introduce operating hours or restrictions further afield.

Shropshire Union Canal

Belvide Reservoir has seen significant refill over the last two months after the completion of repointing works which required significant drawdown and the installation of a new trash screen. There are no current concerns with the reservoir being able to supply the Shropshire Union this season.

Staffordshire & Worcestershire Canal

The Staffordshire & Worcestershire Canal is supplied by three reservoirs (Gailey Upper, Gailey Lower and Calf Heath). Drawdown at the Gaileys for forthcoming works will have a minimal impact on supply. The reservoir group holding as of 18 March 2024 is 96.6%, therefore there are no current water resource concerns for this season.

Llangollen Canal

There are currently no concerns with the water abstractions that supply the Llangollen Canal.

Lancaster Canal

There are currently no concerns with the canal feeders that supply the Lancaster Canal.