



Citizen River

Monitoring Report

September 2026



Friends of Gumstool Brook is a group of local people interested in Cirencester's Gumstool Brook and its associated streams. Visit our website at <https://gumstool.org.uk>

Summary

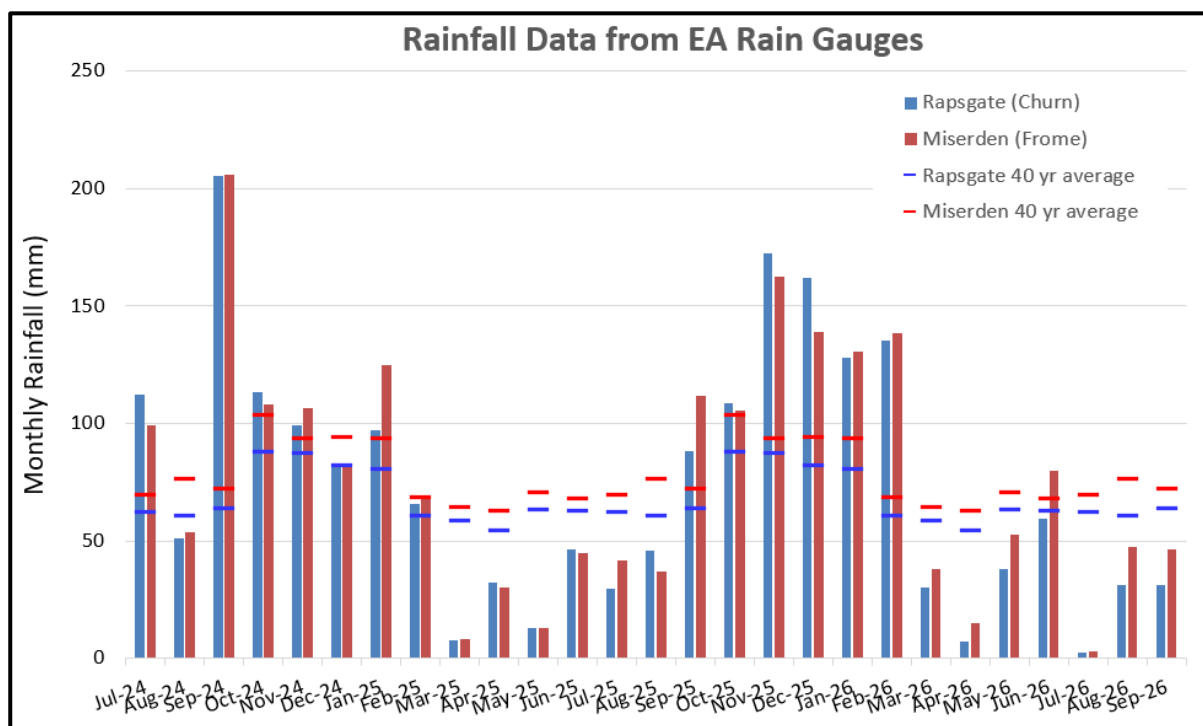
- March to August experienced below average rainfall, including the driest July on record, and has been followed by another dry month, with September seeing only 46% and 61% of the monthly average in the Churn and adjacent Frome catchments, respectively.
- With continued dry weather, groundwater levels in the Cotswold limestone aquifers have continued to decline and at the end of September are now notably low for the time of year. A similar pattern of groundwater level decline has continued in the shallow Gravel aquifer.
- River Churn flow at the Environment Agency (EA) Cirencester gauging station remained stable during September, with a flow of 4.6 million litres per day (ML/d), equivalent to 0.05 cubic meters per second (m^3/s), at the end of the month. Flows are now below normal for the time of year.
- The large sluice gate at Gloucester Street remains closed as per the MoU document.
- The flow from the River Churn into the Barton Mill Pound remains low.
- Flow in the Daglingworth Stream now ceases slightly further upstream near Daglingworth Village Hall, with no flow downstream to Barton Lane on the northern edge of Cirencester, a distance of almost 4 km
- The construction by Thames Water of a new water pipeline across the Daglingworth Stream between Lower End and Stratton is complete. The stream at this location remains dry.
- There continues to be a very low flow in the Gumstool Brook along Riverside Walk and into the Abbey Grounds with flow ceasing shortly after the culvert outlet. The Gumstool Brook Balancing Stream has significant vegetation growth but no flow.
- Riverfly monitoring shows the ecological health of the Churn has improved slightly during September. The Gumstool Brook was not sampled owing to its low flows.
- Water quality monitoring shows a decrease in phosphate and ammonia since August and stable, low nitrate in the Churn and Gumstool Brook, equating to good to high quality in both watercourses despite the very low flow in the Gumstool Brook.
- Flow in Cirencester's waterways is below normal for the time of year due to continuing drought, with Daglingworth Stream dry from Daglingworth to Cirencester and very low flow in the Gumstool Brook. Despite this, the health of the town's water environment appears to have improved but with excessive vegetation growth in places. With below average rainfall potentially continuing until November, stress on Cirencester's waterways may well continue into Autumn.

If you would like to go straight to any of the following detailed topics, just Click on a heading

1. Weather Update & Water Situation Prognosis
2. Groundwater Situation
3. Daglingworth Stream & Gumstool Brook Flows
4. River Churn Flow
5. River Health
6. Stream Monitoring Photographic Record
7. Monitoring location maps
8. Details of the stream monitoring locations

1. Weather Update & Water Situation Prognosis

During March to August in the upper Churn and Daglingworth catchments, rainfall was significantly below average. Only June experienced around average monthly rainfall while the catchments experienced the driest July on record, similar to large areas of the UK. Below average rainfall continued in September, with most rain falling in the first half of the month, resulting in 46% and 61% of the monthly average rainfall in the Churn and Frome catchments, respectively. As a result, from March to September, 6 out of 7 months have experienced below average rainfall, as shown on the graph below.



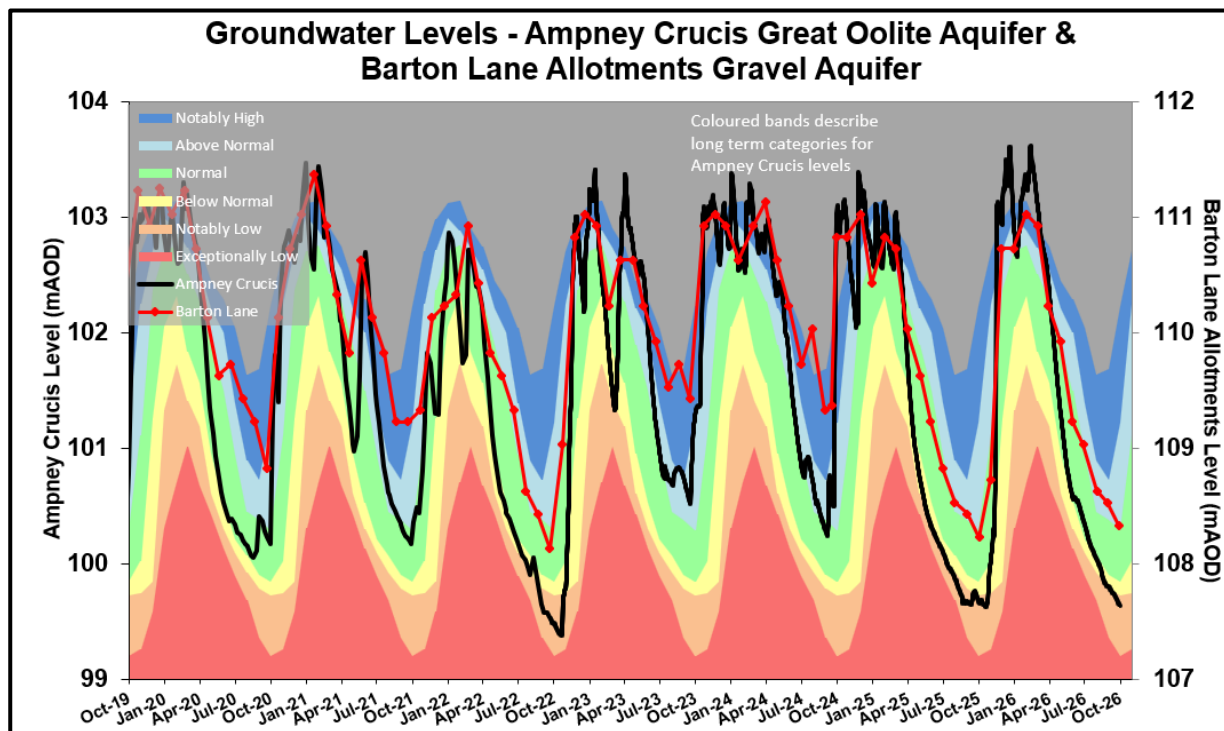
As a result of the continued dry weather, soils across the Churn catchment and the rest of the Cotswolds remain dry. Rainfall is supporting continued vegetation growth but with soils remaining dry, aquifer recharge is not occurring. As a result, a delay in the normal recovery of groundwater levels and river flows in the Autumn and into Winter continues to be likely.

Looking ahead, the Met Office [3 month outlook for October to December 2026](#) for the whole UK indicates there is a significant chance of it being a wet period, with a mild Autumn and early Winter. The previous outlook indicated that November is most likely to be wet and suggests, perhaps, that the end to the 2026 drought may not begin until then. The very strong current El Nino event increases the chances of wetter, stormier conditions in NW Europe during the next 3 months, although the emphasis the Met Office places on this event is that its influence is giving greater confidence in the forecasts being made.

With the health of Cirencester's waterways always influenced by the weather, the focus now is on recovery from the impacts of the dry Spring/Summer on the water environment in the upper Churn and Daglingworth catchments. With the outlook suggesting wetter weather is more likely in late Autumn it remains likely that recovery will be delayed and that stress on the health of Cirencester's waterways could well increase before it ameliorates.

2. Groundwater Situation

Groundwater levels in the Great Oolite limestone aquifer continued to decline during September, as would be expected at this time of year. With dry weather already resulting in below normal Summer groundwater levels, the end of September levels across the Churn and surrounding catchments are now notably low for the time of year, as illustrated on the graph below. There are some variations, particularly in the Daglingworth Stream catchment, where Great Oolite groundwater levels are now exceptionally low for the time of year.



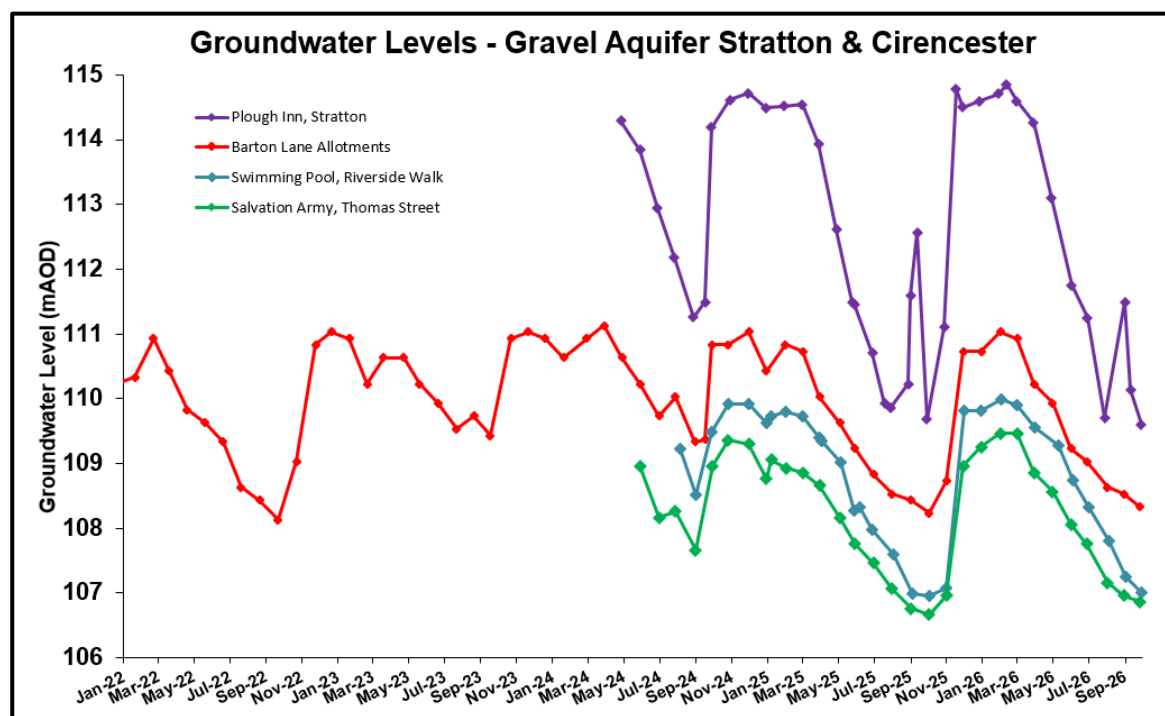
There is little data on groundwater levels in the Inferior Oolite aquifer in the Churn catchment, especially its headwaters where this aquifer has an important influence on river flows. Data from the Churn catchment indicates, however, that Inferior Oolite levels remain exceptionally low for the time of year, although they are now notably low in the adjacent Upper Thames catchment. This highlights the variability in groundwater conditions between and within the aquifers across the Churn and surrounding catchments.

Previously, it was noted that levels in both the Great and Inferior Oolite aquifers at the end of August 2026 were consistently higher than at the end of August 2025. At the end of September, however, the 2026 groundwater levels are slightly lower than those in September 2025. This appears to be the result of below average rainfall in September this year and above average rainfall in September 2025. The above average rainfall in 2025 likely resulted in infiltration through soils and the underlying aquifer via pathways formed by burrows, rootlets and fractures, making a very small contribution to groundwater recharge ahead of sustained groundwater level recovery that began in mid-October 2025. With groundwater levels at the end of September 2026 being lower, this tends to support the implication that sustained groundwater level recovery in the limestone aquifers may be delayed, potentially until November.

The graph above also includes groundwater levels measured monthly in the shallow Gravel aquifer in the Barton Lane Allotments Well, illustrating the consistency in groundwater level patterns between the Gravel aquifer and the Great Oolite limestone aquifer. At the end of September, however, groundwater levels in the Barton Lane Well are higher than those measured at the end of September 2025, contrasting with the situation in the Great Oolite aquifer.

As noted previously, the characteristics of groundwater level fluctuations in the Great Oolite aquifer are similar to those of the Gravel aquifer in Cirencester but different from those in the Gravel aquifer at the Plough Inn in Stratton. Previous data shows water levels in the Plough Inn well fall more rapidly compared with the other shallow wells and that they rise more rapidly. These differences are particularly clear from the graph below. It shows very similar, declining trends in the Gravel aquifer during Summer and into September in the shallow wells at Barton Lane allotments, the Swimming Pool and the Salvation Army in Cirencester but a rise in levels in the Plough Inn in Stratton in August, followed by a decrease in September. The significant rise in water levels in August was very similar to that rise observed in August 2025, with both corresponding to rainfall events. These unexpected rises may result from rainfall-runoff draining into the well, although exactly how remains unknown.

In addition to the differences noted above, it is apparent that at the end of September 2026, groundwater levels in the shallow wells in Cirencester were slightly higher (5 to 20 cm) than those recorded at the end of September 2025 but were at least 8 cm lower in the Plough Inn Well at the end of September this year. In fact, the Plough Inn well was recorded as dry for the first time since Friends of Gumstool Brook began monitoring in April 2024.

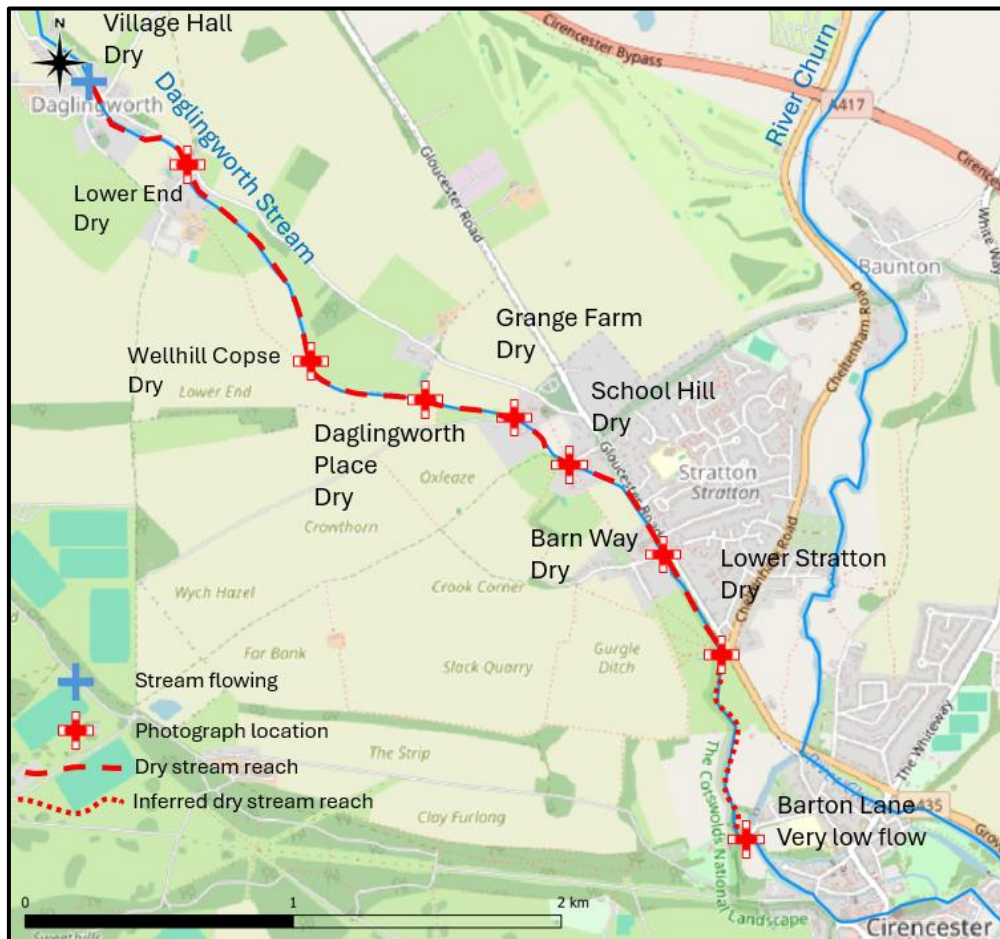


3. Daglingworth Stream & Gumstool Brook Flows

Following dry weather and declining groundwater levels in March and April, the Daglingworth Stream ceased to flow just upstream of Daglingworth Place. By the end of July, the stream ceased to flow further upstream between Church Road and Lower End in Daglingworth. With continued below average rainfall, this situation remained unchanged at the end of August. Following a further month of below average rainfall in September, the stream ceased to flow at Daglingworth Village Hall, around 200 m further upstream, as illustrated on the map below. This means that, at the end of September, there was no flow in the Daglingworth Stream from Daglingworth Village Hall downstream to Barton Lane at the northern edge of Cirencester, a distance of almost 4 km.

The extent of no flow in the Daglingworth Stream at the end of July 2026 was greater than that at the end of July 2025, but at the end of August 2026 the extent of no flow was very similar to that at the end of August 2025 with the stream ceasing to flow between Church Road and Lower End. At the end of September 2025 the situation remained unchanged but at the end of September this year, as noted above, the extent of no flow had extended further upstream to Daglingworth Village Hall. As reported previously, the greater extent of no flow in July 2026 is likely to be influenced by the almost complete absence of rain during that month, much higher temperatures, increased evaporation and exceptionally dry soils. This resulted in no rainfall runoff to the river and reduced benefit from groundwater baseflow, potentially because of greater evapotranspiration and exceptionally dry soils. In contrast, September 2025 was much wetter than September this year, which could have resulted in some rainfall runoff and baseflow linked to higher groundwater levels in September 2025.

In its headwaters in Duntisbourne Abbots, the Daglingworth Stream decreased to very low flows by the end of July, with ponded water and no flow from the village spring, which continued to be the case at the end of August, with low flows occurring downstream into Daglingworth village. At the end of September, the Duntisbourne Abbots spring was dry with very low flows occurring downstream into Daglingworth village. The total length of flowing stream from its headwaters to Daglingworth at the end of August is around 4 km, slightly less than was the case in July and August.



During July, a new water pipeline was being constructed by Thames Water from their Gloucester Road reservoir into northern Cirencester, with its route crossing the Daglingworth Stream near Daglingworth Place. Photographic monitoring during construction of the stream crossing enabled the geology in the pipeline trench to be inferred, as shown in the photograph below.



The geology inferred beneath the stream in this location shows that the bedrock comprises of Forest Marble Mudstone, overlain by very thin gravels, that also contain sand and possibly clay, with a thin soil on the stream channel edges. Although the top of the Forest Marble Mudstone is weathered and will have higher permeability, the underlying mudstone will have a lower permeability. As result, in this particular reach of the Daglingworth Stream, the lower permeability mudstone will prevent any significant interaction between groundwater in the deeper limestone aquifer and the stream. Owing to the geological variations along the Daglingworth Stream the limestone aquifer does underlie the stream further upstream and downstream, which means that when groundwater levels in the aquifer are high enough, groundwater can interact with the stream flow.

Photographic monitoring of the pipeline crossing has continued throughout the construction works and will continue to record how the reinstated stream and floodplain respond as groundwater levels rise and stream flow recommences. The photograph below shows the dry stream bed adjacent to Daglingworth Place on 29th September. It is noticeable in the photograph that the stream bed has a lighter coloured material compared with the local topsoil. This could well reflect the original soil and sediment characteristics because the planned construction method was to remove the stream bed material, keeping it as intact as possible and placing it back in the same sequence.

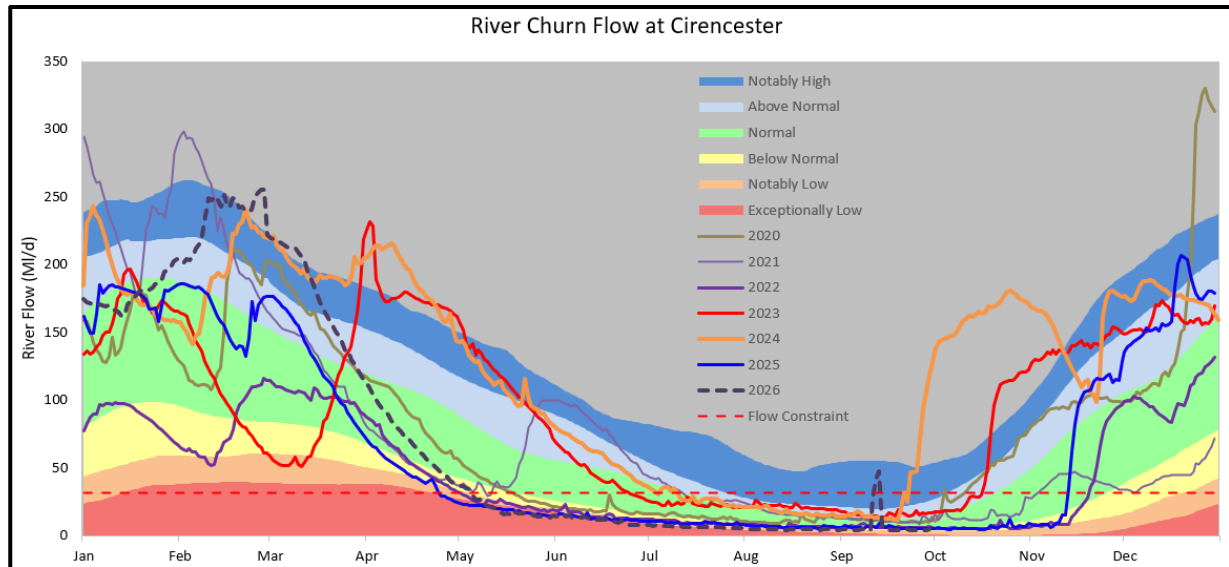


Flows in the waterways in northern Cirencester have continued to be low during September. Water levels in the Barton Mill Pound have not decreased significantly with low flow continuing into the Pound from the River Churn at Gloucester Street. This reflects the flow in the Churn being largely unchanged and stable since the end of August. Similarly, there continues to be no flow from the new Mill Pound overflow into the adjacent field and no visible flow from the Old overflow. There is no flow contribution from the Daglingworth Stream flow into Cirencester, but outflow via the Mill Pound sluices continues to support very low flows in the Gumstool Brook along Riverside Walk; the Balancing Stream remains dry. Both the Gumstool Brook and Balancing Stream have sections that are heavily vegetated. Water level measurements in the Gumstool Brook and groundwater levels in the Swimming Pool well show that the end of September groundwater level in the Gravel aquifer has fallen further to 2.2 m below the stream bed. This means there is continued potential for the little water that is in the Gumstool Brook to seep downwards into the underlying aquifer, which may lead to further reduction of flows and areas of dry channel being exposed.

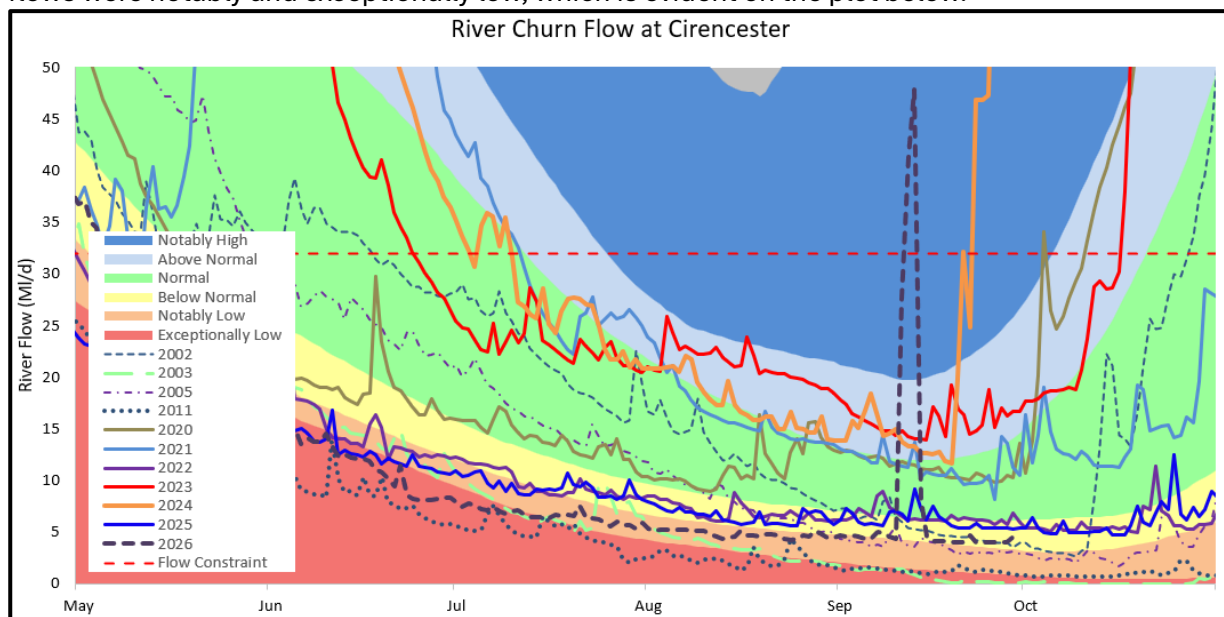
Further downstream, the Gumstool Brook in the Abbey Grounds continues to have very low flows. There is ponded water with areas of dry channel exposed and other areas completely filled with vegetation. It is unclear if very low flows continue downstream to its confluence with the western branch of the River Churn at the Waterloo car park.

4. River Churn Flow

The trend of declining groundwater levels and river flows in the Churn that started in Spring has continued throughout the Summer as a result of the below average rainfall. At the end of August, data from the EA Cirencester gauging station recorded flow of around 4.5 million litres per day (ML/d), equivalent to 0.052 cubic metres per second (m³/s), with the end of September flow being almost exactly the same at 4.6 ML/d, equivalent to 0.053 m³/s, as illustrated on the graphs below. Although September was another month of below average rainfall, the Churn flow fluctuated slightly but did not decrease and remained stable. It is apparent from the graphs below that a significant spike in river flow occurred during September, but it is highly likely that this is the result of an error in the EA data.



The expanded plot below, focusing on Summer and early Autumn flows since 2020 and significant years earlier in the 21st century, shows that the end September 2026 flow is now below normal for the time of year. Although the Churn flow has remained stable since the end of August, there has been a further relative improvement in flow from notably low to below normal. This reflects lower river flows having occurred in the past, including 2003, 2005 and 2011 when flows were notably and exceptionally low, which is evident on the plot below.



The plot above also highlights that the end of September flow in the Churn this year is lower than the flow in September 2025; lower flows compared with 2025 have occurred since May this year. As a result of the relative improvement in river flow, the end September 2026 flow is now the 4th lowest end September flow in the 21st century, with flow in 2002 being below normal and very

similar to 2026 flow. Considering the complete flow record for the Churn, which began in 1980, the end September 2026 flow is the 9th lowest on record. It is important to note that the lower river flows that occurred in 1989, 1990, 1995, 1996, 2002, 2003 and 2005 relate in part to dry weather and drought, combined with groundwater abstraction by Thames Water at Baunton having a potential impact on river flows. Prior to 2008, groundwater abstraction could occur during times of low river flow, but a change in the abstraction conditions set by the EA now requires the cessation of abstraction at times of low flows.

Linked to the ongoing low flows in the Churn, there continues to be no surface flow in its eastern branch upstream and downstream of New Mills at the end of September, with the river bed downstream of New Mills now being completely dry. There continues to be ponded water upstream of New Mills at the Beeches Road bridges. The cessation of flow at the end of July was earlier than last year, when it was recorded at the end of August 2025, but the completely dry river bed downstream of New Mills has not been recorded previously. In the absence of photographic or anecdotal evidence, it cannot be confirmed that the cessation of flow in the eastern Churn occurred prior to 2025, but it seems likely this would have occurred in the previous dry and drought years highlighted above.

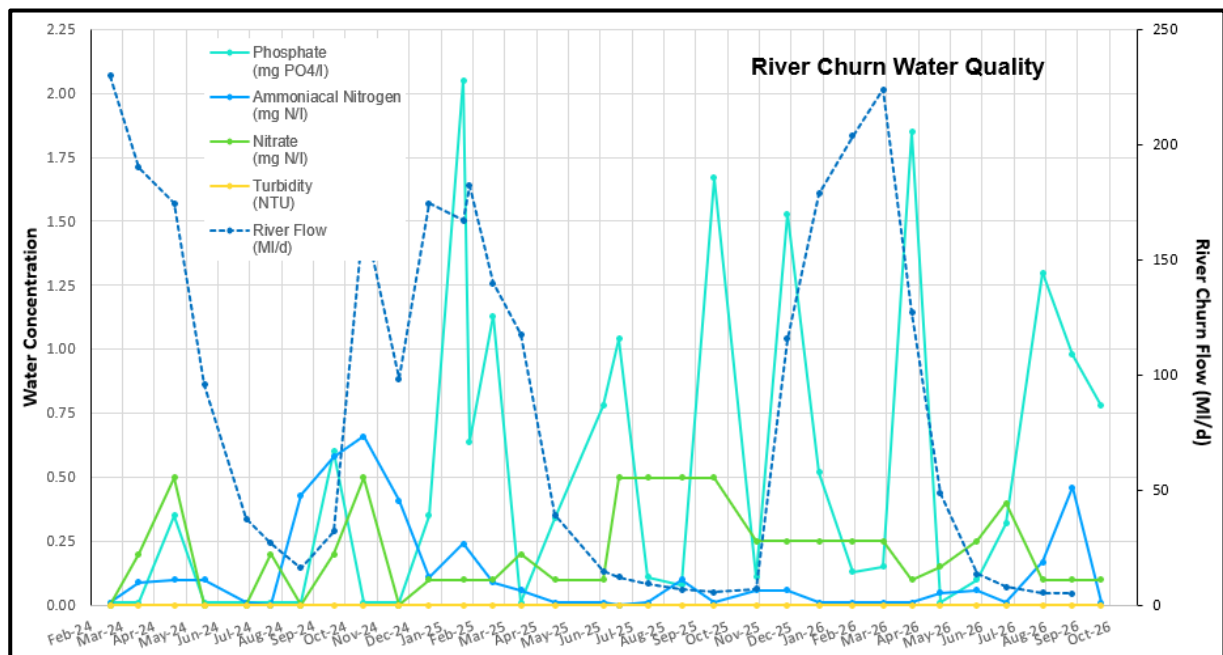
With the end of September flow in the Churn at the EA gauging station at 4.6 ML/d, this continues to be below the 32 ML/d flow trigger at which groundwater abstraction by Thames Water at Baunton for public water supply must cease. Thames Water confirmed that Baunton ceased abstracting to supply customers in the area in early May, with more distant water sources being used in its place. Nevertheless, some pumping of groundwater from Baunton into the River Churn is likely to take place every week to enable water to be supplied to customers in an emergency.

5. River Health

The health of the River Churn and Daglingworth Stream is being monitored through its water quality and riverfly population. This is being done on the River Churn at Gooseacre Lane, downstream of the Gloucester St sluices, and on the Gumstool Brook (Daglingworth Stream) along Riverside Walk. The aim is to carry this out monthly when river conditions allow monitoring to be carried out safely when flows are high and there is sufficient water depth when flows are low .

a) River water quality

Monitoring of river water quality covers the nutrients, ammonia, nitrate and phosphate, and turbidity, a measure of how clear the water is. All measurements to date have shown intermittent spikes, with phosphate (PO_4) concentration spikes being the most obvious and frequent, as shown on the graph for the River Churn below, with similar spikes in the Gumstool Brook. Nitrate (NO_3) measurements tend to be more stable, although concentrations do fluctuate in both the Churn and Gumstool Brook. Ammonia measurements also tend to be stable and usually at low concentrations, although significant spikes have occurred in the Gumstool Brook. In September, phosphate and ammonia concentrations decreased, while low nitrate concentrations remained unchanged in both the Churn and the Gumstool Brook, as shown in the graph for the Churn below. Once again, this data illustrates the frequent intermittent concentration spikes that can occur in these nutrients. These water quality changes have occurred while the low river flows remained stable since the end of August. As noted in previous monthly reports, the significance of low river flows, fluctuating high temperatures, aquatic vegetation growth as well as the growth and distribution of bacteria in the stream sediments on water quality behaviour continues to be uncertain. It is expected that these factors will influence nutrient concentrations in stream water, but with frequent intermittent concentration spikes occurring, establishing the importance of each of these factors is not straightforward.



Using information from the UK Technical Advisory Group (UKTAG) on the Water Framework Directive (WFD), Defra/EA reporting metrics and guidance from FreshWater Watch, a set of water quality standards for nutrients has been collated. These standards enable the monitoring data to assess the water quality health of the Churn and Gumstool Brook with greater consistency. A review of water quality standards showed, however, that there is some variation between information sources. This results, for example, in some standards indicating moderate phosphate water quality while others indicate poor quality. Together with differences in measurement units used to record concentrations and define standards, plus the use of different measurement methods, establishing a consistent framework to assess water quality is not straightforward. It is also apparent that the EA are undertaking water quality monitoring on the River Churn in Cirencester and on the Daglingworth Stream in Stratton and are considering further monitoring in the Churn upstream of Cirencester. A wider range of parameters has been monitored by the EA with most results generated by laboratory analysis rather than using on site measurements. A planned review of this data is yet to commence, but it should help confirm a consistent framework, which may result in changes in the reporting of water quality health.

Using the current framework shows that water quality in the Churn and Gumstool Brook ranges qualitatively from high to poor when considering phosphate, high to good for nitrate and high to moderate for ammonia, although poor ammonia water quality has been measured in the Gumstool Brook. There are different approaches for setting these standards with phosphate focused on averages, typically annual averages, and ammonia focused on contamination events using the 90th percentile of data sets. With data from the “water years” from October 2024 to September 2025 and October 2025 to September 2026, a comparison with the collated standards is summarised below:

Watercourse	Phosphate		Ammonia		Nitrate	
	2024-25	2025-26	2024-25	2025-26	2024-25	2025-26
River Churn	Good	Good	Good	High	High	Good
Gumstool Brook	Good	Good	High	Moderate	Good	Good

This updated comparison, which now includes data for the 2025-26 “water year”, shows that the qualitative comparison against the collated standards remains largely unchanged with the nutrient status of the water bodies mostly being Good to High. The only difference is the Moderate ammonia status for the Gumstool Brook in 2025-26, which is a deterioration from the High status of 2024-25. This deterioration results from the exceptionally high ammonia

concentration measured in May 2026 compounded by the high concentration measured in November 2025, although the causes of these elevated concentrations is uncertain.

For September 2026, a snapshot of the water quality health is summarized below. This shows that, considering nutrients, the aquatic health is High to Good in the Churn and Gumstool Brook.

Watercourse	Phosphate	Ammonia	Nitrate
River Churn	Good	High	High
Gumstool Brook	High	High	High

Measurement of bacteria concentrations in the Churn at Gooseacre Lane began in September 2025 as part of the water quality monitoring and, with the increased flow in the Gumstool Brook along Riverside Walk, measurements began in November. Specifically, the number of faecal coliform *E. coli* (*Escherichia coli*) is being measured, which can be derived from human and animal waste, but most measurement methods cannot distinguish between the sources.

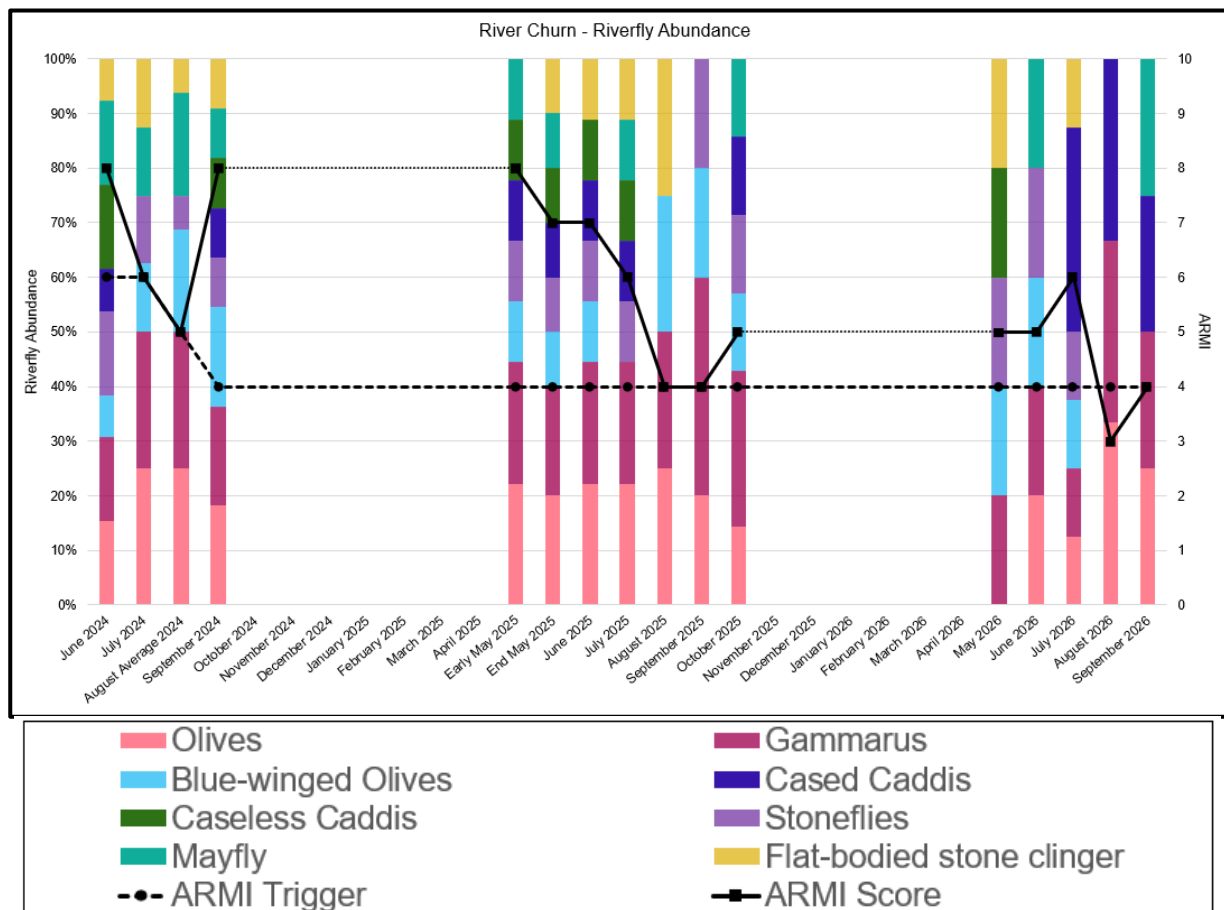
In September 2025, a concentration of 6,900 cfu/100 ml (colony forming units per 100 millilitre) was measured in the Churn, decreasing to 1,200 cfu/100 ml at the end of October 2025 and 200 cfu/100 ml at the end of November. No faecal coliforms were detected in the November 2025 sample from the Gumstool Brook. No further *E.coli* measurements were taken until the Churn was sampled at the end of July 2026, when a concentration of 9,000 cfu/100 ml was measured. This is the highest *E.coli* concentration measured to date, although there are only four measurements from the Churn against which the July 2026 data can be compared. Nevertheless, during the exceptionally dry weather of July 2026, the *E.coli* concentration was unexpectedly high, as runoff from agricultural land and foul sewer surcharging would not be expected. It is also pertinent to note that the two highest *E.coli* concentrations coincide with significant spike in phosphate concentrations that could also derive from agricultural and/or sewage sources. No *E.coli* measurements were carried out in August or September 2026.

Based on measurements to date, it is not appropriate to make comparisons with water quality standards for faecal coliforms. For example, classification of UK inland bathing water quality reported by the EA is based on a statistical distribution of results gathered over a 4 year period for the May to September bathing season. For context only, the two results for the Churn from within this period are significantly higher than the 1,000 cfu/100 ml “Good” standard defined in the Bathing Water Regulations 2013.

b) Riverfly health

Monitoring of riverflies collected from the riverbed, via kick sampling within the Churn and Gumstool Brook, focuses on stoneflies, caddisflies, mayflies and other species as good indicators of water quality. Following a pause in monitoring starting in November 2025, during flow conditions unsuitable for safe sampling, riverfly sampling re-commenced in May 2026 and have continued in the Churn to September.

The available results for the Churn are presented in the graphic below, comparing the ARMI (Anglers Riverfly Monitoring Initiative) score, calculated from the riverflies identified and counted in the sample, with an ARMI trigger. ARMI scores below the trigger are considered to reflect poor aquatic health. No samples have been collected from the Gumstool Brook since the end of July 2026, owing to the very low water levels, but the Churn result for the end of September shows the ARMI score (4) has increased since August and is at the trigger level. Based on the results of riverfly monitoring over Spring, Summer and early Autumn 2025, the deterioration in the ecological health in August 2026 was not unexpected with the continued decrease in river flow. However, with flows showing no significant change in September, the increase in ecological health indicated by the ARMI score was unexpected. Consequently, tracking the response of aquatic ecological health to river flows and, in turn, rainfall and groundwater levels will be important. With the ARMI score for the Gumstool Brook being at the trigger level in June 2026, and no subsequent sample possible due to very low flows, a continued deterioration in its ecological health continues to be likely if flows decrease further.



c) Environmental observations

Recommendations were set out by CWG for environmental enhancement in and around Cirencester's waterways, then expanded and prioritized jointly by CWG and FoGB. This has led to ongoing delivery of a number of these enhancements in Jack Gardners, Hereward Road, the Abbey Grounds and City Bank with support from volunteers, including 29th Regiment The Royal Logistics Corps and SARA (Severn Area Rescue Association). Other environmental enhancements are now to be delivered in October as part of the implementation of the Cirencester Town Council Green Spaces Strategy, including reducing over-shading by trees along the Churn to improve aquatic health of the river. This work connects with the catchment action plan for the wider Churn catchment in development by the Cirencester & Churn Waterways & Environment Partnership (CCWEP).

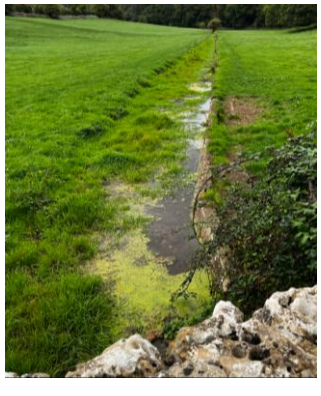
6. Stream Monitoring Photographic Record

This month the River Churn and Daglingworth Stream photographs were collected on 29th of September.

- The source of the Daglingworth stream continues to have a dry stream bed with the village spring now also dry, while the confluence of springs is reduced to a very low flow.
- The flow in the Daglingworth Stream from the Duntisbourne Abbots spring downstream towards Daglingworth village has reduced to a very low flow.
- Both of the woody debris leaky dams upstream of Daglingworth look to be in good condition. The stream has a low flow with the dams not restricting the flow.
- The flow in the Daglingworth stream now ceases near the Village Hall in Daglingworth. There is no flow in the stream from this point all the way to Barton Lane.
- The measured daily average flow in the River Churn, measured by the EA, was 3.97 ML/d (0.046 m³/s) on 29th September when the Churn photographs were taken.

- The large sluice gate at the Gloucester Street sluices remains closed as per the MoU document. The Churn flow therefore passes through the two small sluice gates.
- Flow from the Churn into the Barton Mill Pound remains low.
- There is no visible water at the Old overflow from the Mill Pound and there continues to be no flow from the New overflow.
- There is a low flow in the Gumstool Brook along Riverside Walk and through to the Abbey Grounds. The Gumstool Brook Balancing Stream has significant vegetation growth and a dry stream bed. The Gumstool Brook ceases flowing a short distance downstream of its exit from the culvert in Abbey Grounds.
- The River Churn through the town has a very low flow along its eastern branch with static ponded water upstream of New Mills and a completely dry bed downstream, with no continuous surface water flow.
- There appears to be a moderate flow of water in the western branch of the River Churn through the Abbey Lake, but with low flow occurring within City Bank.

1a. Daglingworth Stream upper source north of Duntisbourne Abbots. The stream bed is dry on both sides of the road. There is extensive vegetation present.		1b. Duntisbourne Abbots village spring. The spring is dry.	
2. Duntisbourne Abbots, Daglingworth Stream downstream of inferred confluence of spring sources. There is a very low flow of clear water from the spring and in the channel.		3. Duntisbourne Leer ford, Daglingworth Stream. There is a very low flow across the ford that extends to ~9 cobbles on northeast side.	
4. Middle Duntisbourne ford, Daglingworth Stream. A low flow is observed that extends to 7 bricks of the cobbled area of the south-west channel edge.		5. Duntisbourne Rouse ford, Daglingworth Stream. There is a low flow across the ford, which is well inside the SW boundary cobbles.	

6a. Daglingworth Stream – Leaky Dam #1, upstream of Grove Hill Lane. The dam is in good condition. There is a low flow in the stream.		6b. Daglingworth Stream Leaky Dam #2, upstream of Grove Hill Lane. The dam is in good condition. There is a low flow in the stream.	
6c. Daglingworth Stream Grove Hill bridge. A very low flow is observed that fills a small section of the channel in the field upstream of the Grove Hill bridge.		7. Daglingworth Stream, Village Hall The stream is dry. There is damp mud present.	
8. Daglingworth Stream at Lower End road bridge. There is no flow, and the stream bed is dry.		9a. Wellhill Copse, Daglingworth Stream in equestrian fields.	No Picture
9b. Wellhill Copse, Daglingworth Stream near path stile.	No Picture	10. Daglingworth Place ford, Daglingworth Stream. The stream bed through the ford is very dry and dusty.	
11. Grange Farm bridge, Daglingworth Stream. The stream channel is dry. There is a lot of vegetation present.		12. School Hill bridge, Daglingworth Stream. The stream channel is dry.	

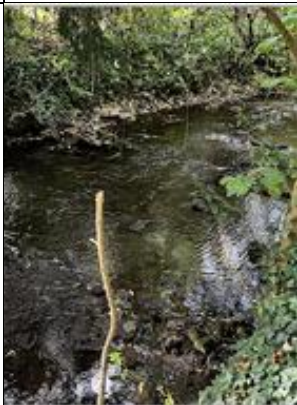
13. Stratton End (private road), Daglingworth Stream. The stream is dry upstream and downstream of the road bridge. There is significant vegetation in the stream bed.		14. Barn Way bridge, Daglingworth Stream. The stream channel is dry with some vegetation present.	
15. Daglingworth Stream, Plough Inn channel The channel is dry, and there is some vegetation present.		16. Footpath at Lower Stratton. The stream bed is dry. There is lots of vegetation present.	
17a. Daglingworth Stream downstream of Bathurst estate boundary wall Dry in places, no flow		17b. Daglingworth Stream downstream of Bathurst Estate boundary wall Dry in places, very low flow	
18. Gumstool Brook Balancing Stream The stream is dry apart from a small puddle by entrance from sluice.		19. Gumstool Brook - gauge alongside swimming pool Reading just below 0.2m, lot of duckweed	

20. Gumstool Brook - alongside riverside walk Very low flow, great deal of vegetation and duckweed		21. Gumstool brook at culvert trash screen Very low flow and a lot of vegetation	
22a. Balancing stream at Powell's School - at trash screen Dry stream, almost completely covered by vegetation		23. Balancing stream at Powell's school towards Salvation Army building Dry stream, completely covered by vegetation	
24. River Churn and Stratton Meadow at Bomford Cottage Low flow in Churn; Stratton Meadows dry		25a. River Churn at Gloucester St. bridge upstream of sluices Low flow, lots of weed present	
25b. Glos St bridge sluices Most flow entering into both sluices. Lots of gravel and vegetation present above sluices.		25c. River Churn at Glos St bridge measuring gauge Water level just below 0.1m	

25d. River Churn downstream of Glos St sluices Low flow		25e. Glos St bridge towards Mill Pound Lots of vegetation present at entrance to the Barton Mill Pound.	
26. Barton Mill Pound downstream from Glos St bridge Stream has low flow and lots of vegetation present.		27a. Gauge in Mill Pound Guage showing just below 0.4m	
27b. Mill Pound overflow (new) Completely dry		28. Mill Pound overflow (old) No visible water	
29a. Mill Pound upstream of footbridge Very shallow and a lot of vegetation present.		29b. Mill Pound downstream of footbridge Very low flow, much weed and duck weed	

29c. Gauge by footbridge in Mill Pound High and dry! Numbers not very visible (sun bleached?)		31. River Churn upstream side of Gooseacre Lane Low level and flow	
32a. River Churn gauge upstream side of Gooseacre lane Gauge showing 0.09m		32b. River Churn downstream side of Gooseacre lane Low flow, small weir now visible	
33a. River Churn upstream of Spitalgate Lane bridge Low flow		33b. River Churn looking downstream towards Spitalgate Lane bridge Much vegetation masking water, low flow	
33c. River Churn downstream of Spitalgate Lane bridge Low flow		34a. Hereward Rd trash screen Low water level, some trash	

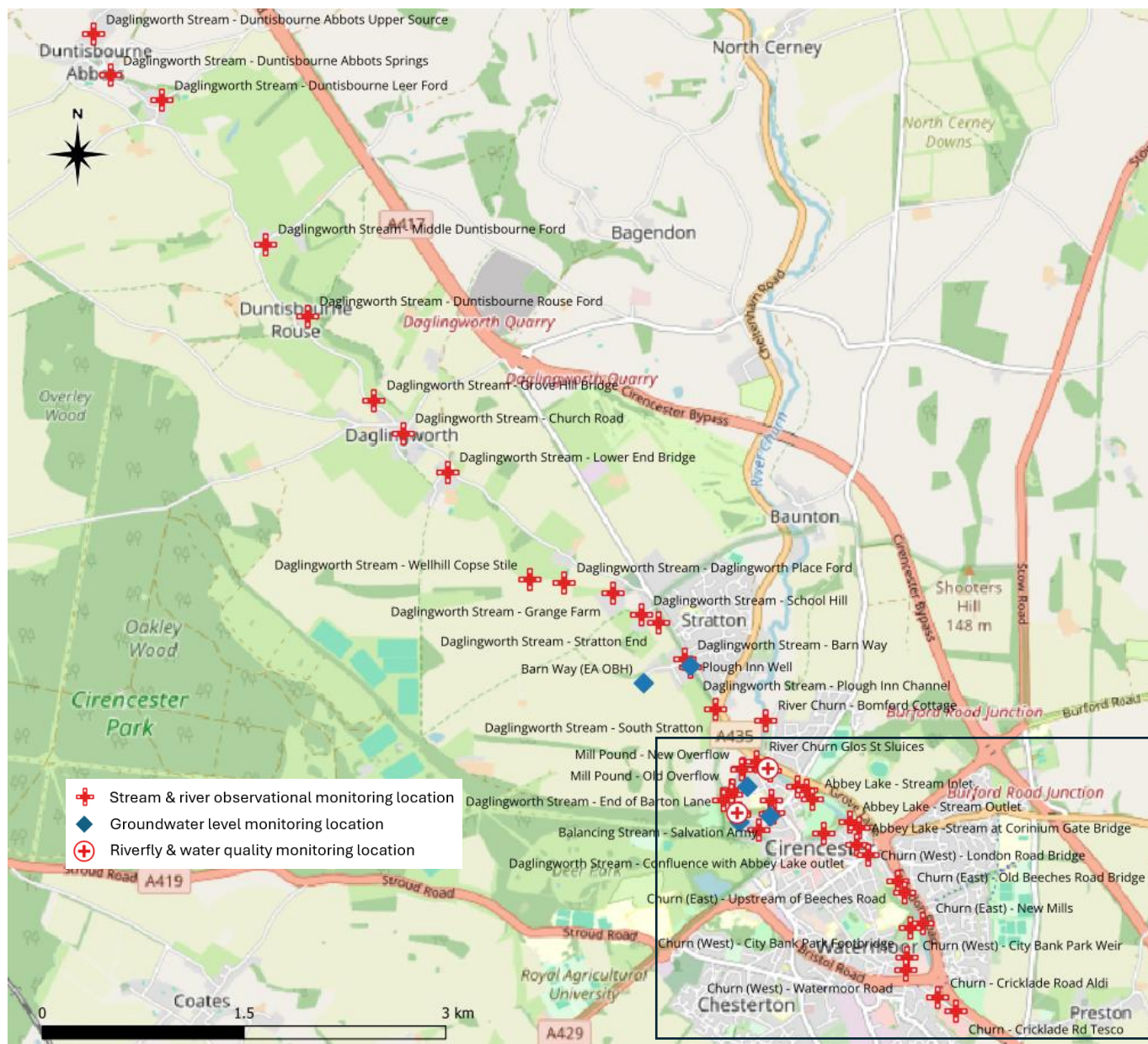
34b. River Churn upstream of Hereward Road trash screen, low level and flow		34c. River Churn - bridge downstream of Hereward Road Trash screen	
34d. River Churn on other side of Hereward Road bridge Low water level, low flow		35. Stream flowing into Abbey Grounds & lake Low flow	
36a. Weir at stream outlet from Abbey Lake Low flow, surface algae again in evidence and leaves		36b. Footbridge at stream outlet from Abbey Lake Low flow	
37. Abbey Lake outlet stream at Corinium Gate bridge Low flow		38a. Gumstool culvert outlet in Abbey Grounds No flow, static water, (very low flow visible further downstream)	

38. Gumstool Brook in Abbey Ground towards Waterloo Dry areas, with pools of water and no obvious flow		39a. Gumstool Brook alongside Waterloo flats looking upstream No stream visible, much vegetation	
39b. Gumstool Brook confluence with Abbey Lake outlet (Waterloo car park) Very low flow		40a. River Churn East on downstream side of London Rd bridge Stream only just visible, much vegetation	
40b. River Churn on downstream side of London Rd bridge Low level, much vegetation		41a. River Churn upstream of old Beeches Road bridge Very dry in places, pools of water, no obvious flow, rubbish visible	
41b. River Churn downstream of old Beeches Road bridge Dry areas with no obvious flow, rubbish visible		44. Weir at City Bank glade Weir not really visible, slow flow	

43a. River Churn – Furness hole Totally dry		43b. River Churn - new Mills overflow No flow from overflow	
43c. River Churn - New Mills downstream Dry riverbed		45. River Churn at City Bank Park footbridge Low flow, vegetation	
46. River Churn at Watermoor Point car park Low flow, duckweed and other vegetation		47. River Churn at Cricklade Road opposite Aldi River more visible due to clearing work being done, still much vegetation	
48. River Churn at Cricklade Road opposite Tesco Work going on to clear area between main road and river			

7. Monitoring location maps

Map 1: All monitoring locations, showing area covered in more detail by Map 2



Map 2: Detail of monitoring locations in Cirencester



8. Details of the stream monitoring locations

No.	Location Name	Grid Reference	What3Words Link
1	Daglingworth Stream - Duntisbourne Abbots Upper Source	SO 97036 08089	https://w3w.co/winners.lamenting.energetic
2	Daglingworth Stream - Duntisbourne Abbots Springs	SO 97163 07783	https://w3w.co/league.teaching.adhesive
3	Daglingworth Stream - Duntisbourne Leer Ford	SO 97544 07599	https://w3w.co/thatched.northward.enclosing
4	Daglingworth Stream - Middle Duntisbourne Ford	SO 98134 06527	https://w3w.co/reporters.slower.axed
5	Daglingworth stream - Duntisbourne Rouse Ford	SO 98621 05995	https://w3w.co/flamenco.spines.openings
6	Daglingworth Stream - Grove Hill Bridge	SO 99117 05367	https://w3w.co/processes.swipes.grouping
7	Daglingworth Stream - Church Road	SO 99332 05121	https://what3words.com/obstinate.tummy.panel
8	Daglingworth stream - Lower End Bridge	SO 99662 04835	https://w3w.co/objective.verbs.shoving
9	Daglingworth stream - Wellhill Copse Stile	SP 00277 04034	https://w3w.co/automate.servicing.objecting
10	Daglingworth stream - Daglingworth Place Ford	SP 00529 04013	https://w3w.co/posed.emerald.bandstand
11	Daglingworth Stream - Grange Farm	SP 00890 03931	https://w3w.co/episodes.champions.keyboards
12	Daglingworth Stream - School Hill	SP 01102 03770	https://w3w.co/undercuts.winks.retiring
13	Daglingworth Stream - Stratton End	SP 01236 03714	https://w3w.co/nursery.jacuzzi.unearthly
14	Daglingworth Stream - Barn Way	SP 01427 03440	https://w3w.co/requiring.handfuls.powers
15	Daglingworth stream - Plough Inn Channel	SP 01468 03385	https://w3w.co/flap.grafted.cuts
16	Daglingworth Stream - South Stratton	SP 01657 03072	https://w3w.co/commutes.boom.narrates
17	Daglingworth Stream - End of Barton Lane	SP 01712 02392	https://w3w.co/hydrant.paces.underway
18	Balancing Stream - Riverside Walk Sluice	SP 01835 02300	https://w3w.co/oasis.eclipses.pythons
19	Gumstool Brook - Swimming Pool Entrance	SP 01832 02287	https://w3w.co/monks.factored.blazers
20	Gumstool Brook - Private Bridge	SP 02067 02394	https://w3w.co/catapult.prepared.watching
21	Gumstool Brook - Trash Screen	SP 01975 02171	https://w3w.co/unicorns.carbonate.ruling
22	Balancing Stream - Powells School	SP 02085 02301	https://w3w.co/marshes.batches.spectacle
23	Balancing Stream - Salvation Army	SP 02061 02290	https://w3w.co/conquests.cried.fewest
24	River Churn - Bomford Cottage	SP 02030 02987	https://w3w.co/grinning.link.watchdogs
25	River Churn - Glos St Sluices	SP 01960 02684	https://w3w.co/stooping.height.palms
26	Mill Pound - Glos St Bridge	SP 01856 02630	https://w3w.co/unguarded.thousands.gifted
27	Mill Pound - New Overflow	SP 01847 02625	https://w3w.co/arrives.headings.crisis
28	Mill Pound - Old Overflow	SP 01775 02466	https://w3w.co/sample.fuzzy.composts
29	Mill Pound - Footbridge	SP 01785 02470	https://w3w.co/sharpness.heightens.assembles
30	Mill Pound - Barton Mill Sluice	SP 01773 02433	https://w3w.co/yummy.rail.swan
31	Churn - Upstream of Gooseacre Lane	SP 02040 02633	https://w3w.co/idea.compacts.smashes
32	Churn - Gooseacre Lane Bridge	SP 02058 02615	https://w3w.co/moving.snaps.dentures
33	Churn - Spitalgate Lane Bridge	SP 02261 02493	https://w3w.co/vibrates.treetop.quirky
34	Churn - Hereward Road	SP 02329 02473	https://w3w.co/subject.enjoys.shackles
35	Abbey Lake - Stream Inlet	SP 02377 02404	https://w3w.co/silly.hairstyle.streak
36	Abbey Lake - Stream Outlet	SP 02658 02237	https://w3w.co/boater.rankings.scribble
37	Abbey Lake - Stream at Corinium Gate Bridge	SP 02721 02194	https://w3w.co/essay.goes.waltzed
38	Gumstool Brook - Culvert Outlet in Abbey Grounds	SP 02456 02147	https://w3w.co/agency.mascots.warping
39	Daglingworth Stream - Confluence with Abbey Lake outlet (Waterloo carpark)	SP 02706 02064	https://w3w.co/trinkets.inviting.dinosaur
40	Churn (West branch) - London Road bridge	SP 02792 01991	https://w3w.co/ranks.uncouth.perfected
41	Churn (East) - Upstream of Beeches Road	SP 03012 01797	https://w3w.co/blank.sheep.springing
42	Churn (East) - Old Beeches Road Bridge	SP 03064 01707	https://w3w.co/that.rephrase.necks
43	Churn (East) - New Mills	SP 03198 01478	https://w3w.co/stolen.recovery.sensible
44	Churn (West branch) - City Bank Park Weir	SP 03116 01480	https://w3w.co/roadblock.cloth.blaze
45	Churn (West branch) - City Bank Park Footbridge	SP 03077 01222	https://w3w.co/feelers.corrects.lucky
46	Churn (West branch) - Watermoor Road	SP 03068 01134	https://w3w.co/tabs.wing.scout
47	Churn - Cricklade Road Aldi	SP 03305 00926	https://w3w.co/bucked.duck.mailboxes
48	Churn - Cricklade Rd Tesco	SP 03442 00829	https://w3w.co/drag.aimed.look
101	Well - Barton Lane Allotments	SP 01896 02515	https://w3w.co/toasters.resettle.factoring
102	Well - The Plough Inn	SP 01469 03394	https://w3w.co/dote.teams.twitchy
103	Well - Salvation Army	SP 02070 02268	https://w3w.co/fine.unwraps.cowboys
104	Well - Open Air Swimming Pool	SP 01827 02237	https://w3w.co/veered.expansion.goad