

CIRENCESTER

A survey of the WATERWAYS passing through the Town with
Special reference to the GREAT FLOOD of 1929

By Robert Anderson, former High Steward of Cirencester



The Flood at the junction of Dollar Street and Thomas Street in January 1929

Ryton House
Lechlade
Gloucestershire

8th Octr 1931.

My Dear Edward,

While the flood scare prevailed I saw the UDC had applied to the County Council for a report from their Drainage Officer, Mr Hindmarsh and received a reply that a fee of 50 guineas would be required. I went to Gloster twice to try and make him understand the business, but don't know if I succeeded or if a report was ever made. Now I believe Hindmarsh is being axed and I made up the report herewith from my notes. Perhaps it may amuse you. I haven't perambulated the streams for years and have nothing but my memory to rely on, But I think it is fairly accurate.

I am yours
Robt Anderson

Ryton House
Lechlade
Gloucestershire

5th Nov. 1931

My Dear Davies,

Having heard nothing of the result of the application of the UDC to the CC for a report on the floods, by the Land Drainage Officer, I put together some notes I had made, the general effect of which I communicated to Mr Hindmarsh early in 1930, and I have sent a copy to Mr Scotford-Harmer. I send you another to peruse as I think you may be interested. When you have done this will you kindly send it on to EC Sewell?

I am much distressed to hear of the death of my friend in Barnsley, what will happen I wonder, the estate is not in good order, is unsaleable and none of the family will be able to live there.

Have you noticed the condition of the brook by the swimming bath? I used to have this scraped out every year.

Harmer was very anxious to publish my floods paper in the W.& G.S. but wished to cut out the references to the Sewers etc which he thought would go against the UDC in any enquiry to extend the Councils Area to include Stratton.

This I declined to do.

Hindmarsh, the County Council officer has sent me his report which also refers to this fact. I have sent this to Dugdale who is interested and when he returns it you shall see it - I spent

Wednesday morning with him and with W Jones and Anthony Haygarth we looked over the ground. What a desolate scene is The Barton from the Mill doors round the buildings

Green Gates
Sandecote Road
Parkestone. Dorset

7 June 1939

Dear Mr Mathews,

You are young enough to recollect the Floods in Cirencester in 1929; so I send to you to place in among the Council Archives the enclosed copy Survey and Report thereon made by the late Mr Robert Anderson. This he completed from his local knowledge and in virtue of his holding the Office of High Bailiff. I am not sure if he communicated a copy to the then Chairman of the Urban Council but I expect he did. Anyhow you may like to have it and it is now no use to me.

You can tell Mr Wilkinson to acknowledge it.

I am sorry to hear that Miss Donovan is giving up her job.

Yours very truly,

EC Sewell.

The Great Flood of 1929

It is now nearly two years since the inhabitants of Cirencester suffered serious loss and inconvenience as the result of this Flood, and although I have not heard of measures being taken to prevent a recurrence, I hope the matter has not been definitely shelved. At the time the correspondence columns of the Wilts & Glos. Standard testified to the anxiety that was generally felt, and various theories as to its origin were advanced. Having for a good many years had practical experience of local conditions I venture to offer my opinion as to the causes, and also the means by which the flow may be controlled.

The Town of Cirencester.

From its situation the Town is particularly liable to flood. It is built upon a porous sub-soil of alluvial gravel at the foot of the Cotswolds, and right across a narrow valley where the rivers Churn and Dun meet. The Churn rising at Severn Springs, and the Dun at Duntisbourne Abbots, with their tributaries, bring the rainfall from an extensive catchment area down to the Town, through which it is of the greatest importance it should pass as quickly as possible, but here it meets artificial obstructions that greatly retard the flow. The fall from Gloucester St bridge to Watermoor is about 25 feet (1200mm).

Rainfall

Since all the water passing through the Town is derived from the clouds, the quantity that falls is relative to this enquiry. The only records I have at hand are those of the average monthly rainfall at Cirencester for the ten years 1903 – 1912, that I take from an essay on "The Agriculture of the Cotswolds" that I wrote in 1913 for the Agricultural Society. By the kindness of Mr Nigel Woods I am able to add the rainfall for 1929, 1930 and the first nine months of 1931.

	10 years average	1929	1930	1931. 1st 9 months
January	2.44	1.18	4.68	2.06
February	1.84	0.68	0.53	2.40
March	2.62	0.24	2.04	0.26
April	1.93	0.97	2.50	2.69
May	2.23	2.95	1.33	4.21
June	3.15	1.35	2.21	3.77

July	2.22	1.64	3.35	3.77
August	3.26	2.01	3.15	5.07
September	1.71	0.23	3.58	<u>2.19</u>
October	3.75	4.40	2.37	24.42
November	2.37	8.31	3.72	
December	<u>3.22</u>	<u>7.27</u>	<u>3.60</u>	
Totals	30.74	31.23	33.06	

The average rainfall over the catchment area is probably a good deal higher. Mr Henry Elwes, a very careful observer, told me that in the year 1912, he measured over 50 inches (4'8") at Colesbourne.

The River Churn at Barton Mill

After the river has passed Stratton Mill, about a mile north of the town, the bed of the Churn has been raised, and its direction changed at the Gloucester St Bridge to divert it to Barton Mill. This was doubtless devised by the Lord of The Manor, at that time, the Abbot, and owner of the only Mill where his tenants might bring their corn to be ground. His Manorial dovecot and Tithe Barn are still standing at The Barton.* This alteration in the level of the river bed obviously slackened the river's flow, as compared with that down the sharper fall of the original course, which I assume to have been from the bottom of Gloucester St through St John's Meadow, into the Abbey, under the London Rd and so on to Watermoor.

The New Mills

The New Mills at the Beeches were set up early in the sixteenth century and were referred to by Leland in 1540 as "*a right goodly clothing mylle*"; and a cut from the Gumstool Brook opposite the swimming bath provided the power. This enters a culvert at Powell's School and passes under the junction of Gloucester St and Dollar St, into the open watercourse in the Abbey grounds that crosses over the old river bed at the Fishpond (Abbey Lake) and so by Grove Lane and the Beeches to the Mill. These mills were formerly operated by Mr Joseph Cripps, who was the first elected MP for the Borough in 1806 and described himself as "Banker, Brewer, and carpet manufacturer". The carpet factory in Gloucester St closed in 1836⁽¹⁾ and the business moved to Kidderminster.

The Gumstool (or Gunstool) Brook

After passing through the Barton Mill, the tail water falls into the little River Dun, (*or Daglingworth Brook*), which rising at Cotswold Farm (*Not it rises above Duntisbourne Abbots on Yew Tree Farm*), passes through the Duntisbournes, Daglingworth and Stratton; taps the springs in the gravel beds at The Barton, and joins the mill tailrace and is thenceforth known as the Gumstool Brook. As mentioned previously, part of this river is diverted to the New Mills, the rest passes under the Cecily Hill Arch, through the back of Black jack St and under Dollar St (at the site of the Abbey Mill). It reappears in the Abbey ground, by the Churchyard wall, and joins the old course of the Churn near the Arch on the London Rd (*now Corinium Gate*). Within my recollection this was a foul and offensive sewer from the Barracks (on Cecily Hill) onwards, naked and unashamed.

Now that the Mills are not working and the repair of river banks and hatches much neglected, the danger of flood is aggravated. But as long ago as I can remember, water rose almost every winter in the Gloucester St district, often followed by an epidemic of what was called "The Fever", caused no doubt, by the contamination of the shallow wells from adjoining Cess pits. A particular virulent attack occurred in the summer of 1868.

The Gravel Beds

It had been observed that these Gloucester St Floods coincided with the annual breaking of the springs which usually occurs in February, and my Father, in consultation with Mr John Bravender, a well known surveyor who had special knowledge of the district, reached the conclusion that the prime cause was not the water from the Churn as had been generally supposed, but the accumulation of water in the gravel beds. This had its only outlet into the Dun at The Barton, passing by a narrow arch under the Canal Feeder, and meeting the tail race water from the Barton Mill, became the Gumstool Brook already mentioned. With the consent of Earl Bathurst, a trench was cut into the gravel bed behind The Barton and a large pipe drain was carried under the canal Feeder and Gumstool Brook, directly across Cripp's Mead, under the bed of stream at Powell's School and into the Abbey Fishpond. I do not remember any serious Flood at The Barton or in Gloucester St since this was completed in 1869, until that of 1929.

It may be of interest to mention that about this time, the 4th Earl Bathurst was considering a scheme for giving the Town a pure water supply from an artesian well in the meadow adjoining the garden at the back of the Barton Mill. This was commenced and for some reason abandoned, but the uncompleted Bore-hole still exists (*in 1931*) and demonstrates the pressure in the gravel bed when the springs break in winter, then it becomes a gusher

The Querns Springs

A considerable quantity of water comes down from springs in the Querns,⁽²⁾ and from the Deer Park through Lord Bathurst's lake. This water passes under the canal feeder and Great Western Railway's yard by a small culvert, through what were formerly osier beds, now the UDC depot, past the

workhouse and under the railway station at Watermoor, where the culvert is also too small, and into an old sewer from Cricklade St that ran under the footpath beside the Ashton Road to Siddington. This is now broken in at many places, and the greater part of the water now pours out in a watercourse at the parish boundary and past Siddington Manor (*to join the Churn by the bridge under South Cerney Rd*) This is one cause of the floods at Lower Siddington, but that is another story.

The Canal Feeder

I need only refer briefly to the feeder, as it was not essential to carry off flood water. Its bed is on the same level as the Barton Mill pound, and about four feet above the Dun which it crosses. While it formerly took some of the top water into the Canal, this can be controlled by other means. In any case the Feeder is now derelict and does not operate.

The Town Sewerage

In 1877, the local Authority undertook the drainage of the Town, and mains were laid to carry the sewerage, but not the surface or flood water, to Tudmoor. (*Now Shorncombe treatment works*) It was essential that the Joints of these pipes should be watertight, both to keep the sewerage in and the other water out. Unfortunately there was no proper supervision of the work, only one clerk of the works was employed on behalf of the authority, while the contractor was allowed to lay and cover the pipes at several places at the same time, and it was generally believed that in addition to the defective jointing, many of the pipes were broken by heavy stones and coarse rubble used for backfilling the trenches. The mains were obviously not watertight, or the man-holes would not have blown at the time of the great flood, when they discharged volumes of water and other items into the street and houses. Incidentally the quantity of surface water passing down the sewers to Tudmoor has been a constant source of trouble at the sewerage farm, which was not designed to take it. I imagine that the large scheme of surface water drainage that was carried out some years ago was intended to intercept this water, but it cannot prevent the spring water in the subsoil, which is the source of the trouble, from entering the defective mains.

The Manor Court

From time immemorial, the duty of supervising the watercourses within the Manor and Borough to prevent floods had been performed by a Water Bailiff, appointed at the Court Leet, held annually. The last holder of this office was, I think, the late Mr Alfred Harmer, who was appointed at the Court held in 1899, at which I presided as deputy for my Father, who was then High Steward.

The Urban District Council takes over

Early in 1900, I was informed by the Clerk to the UDC, who had recently been appointed High Steward, that the duties hitherto carried out by the Water Bailiff, were vested in the UDC, and that they would in future be performed by their Surveyor. The Official who had succeeded to the late William Holland as Surveyor to the Council was a stranger to the district, and it was not his fault that he was ignorant of local conditions that were unusual and complicated, though he might, without loss of dignity, have given more intelligent consideration to the suggestions that were made to him by those that had the experience that he lacked. I may say that as long as I lived at The Barton, I looked after the interests of the inhabitants, including myself and saw all the hatches (sluices) were drawn (up) when the occasion required. A proposal to fill in the watercourse between London Road and the New Mills to provide work for the unemployed met with some support in the Council, but was not proceeded with. Later the hatches at the New Mills, that provided the only outlet for the stream between the Whiteway (Spitalgate Lane) and the New Mills fell out of repair, and were replaced by a solid wall of masonry. The way was therefore made plain for what happened.

NEMESIS!

In November and December, 1929, an unprecedented heavy and continuous rainfall filled both watercourses and gravel beds to overflowing. The springs at The Barton broke at once, instead of in the following New Year. Apparently, no observation had been kept on the rapid rise of water in the gravel pit (*the small lake at the back of the allotments in The Barton?*), which in fact would have been of little use, as the safety valve at the New Mills had been built up and its existence forgotten. A great volume of water that could not pass through the town had accumulated and forced its way into the subsoil and sewers, and then rose above the streets and floors of the houses in the lower parts of the Town (Dollar St and Thomas St), causing serious damage to health and property that will not soon be forgotten. It was of utmost importance to get the water away as quickly as possible, but for several days no outlet was found for the hourly increasing flood except the arch under the London Rd, near Oxford house, which was far too small to take it and it continued to rise. Finally someone remembered there had once been a hatch at New Mills. A breach in the masonry was made and the water in the streets gradually subsided. I am convinced that if the Gloucester St Bridge and other hatches had been kept in good order, and drawn (up) directly the water rose in the gravel pit, and there had been a free exit at the New Mills, the flood would have run off far more quickly, and the Town and inhabitants would have suffered infinitely less damage and inconvenience.

Recommendations

While it is possible and perhaps probable that such heavy and persistent rainfall may never recur, I venture to make a few recommendations of a conservative character that would not involve any great outlay.

1. The hatches at the New Mills to be restored and the steam mudded out as far back as possible.
2. The side hatch in the watercourse between Gloucester St and the Saxon Arch to be made effective to pass flood water into the Fishpond (Abbey Lake)
3. The vents in the Abbey Wall at the Whiteway to be restored.
4. The side hatch from the Barton Mill pound leading into Cripps' Meadow to be repaired.
5. All obstructions in the watercourses and culverts through the Town, to be removed.

I think that probably some of the above have already been carried out. If all are agreed to the position will be exactly what it was when the UDC took over the control, brought up to date by the necessary repairs and renewals, and in my opinion there will be little danger of damage by flood in a normal season. If however it is considered necessary to keep all water off the Whiteway, a new bridge or a bypass will be required under that thoroughfare. I do not think myself this is very important. To meet a position created by abnormal rainfall such as caused the great flood, some further works appear to be desirable.

6. To provide a bypass at the Barton to carry spring water more quickly from the Dun into the Gumstool Brook by relieving the pressure at the arch under the Canal Feeder.
7. To enlarge the overflow from the Abbey Fishpond and Gumstool Brook by a bypass by the side of the bridge under the London Road near Oxford House.

All these bypasses can be economically constructed according to modern practise by the use of large concrete pipes.

Finally

It is of supreme importance that careful observation should be kept on the gravel springs at the Barton, and immediately the water in the Dun approaches the crown of the arch under the Feeder, every hatch from the Barton through the Town to the New Mills should be drawn at once, without waiting for it to accumulate.

An Alternative.

The suggestion I have made are based on the assumption that the existing waterways are to be preserved and maintained, but now that the Mills have been abandoned (at the Barton and New Mills), there is a possibility of diverting the Churn into its natural course and avoiding the high level journey round to The Barton. This might be done by turning it down the original channel at the end of Gloucester St and shutting off the Barton Mill pound. The cut from the Gumstool Brook to the New Mills could also be shut off at the Abbey Fishpond and turned into the river. A good deal of work would be required between Gloucester St and Kingsmead to provide for the additional flow but on the other hand no outlay would be required on the hatches or clearing the mud from the Beeches Brook. The Barton Mill pound would become dry, as would the Beeches Brook from the Abbey Fishpond to the New Mills. The culvert from Cecily Hill Bridge would be relieved from the water of the Churn and better able to deal with the Dun and the gravel bed springs. If this plan was carried out the watercourses would be as I believe they were naturally and probably in very much the same positions as they at the time of the Roman occupation. There may be difficulties of which I have no knowledge due to the recent developments at Watermoor, but I believe this to be the true solution of the question of floods in the Town and hope it will receive the serious consideration of the responsible authorities. *Ref. File DA4/140/1 Gloucestershire Records Office*

* A **BARTON** is a farm owned and solely for the benefit of the Lord of the Manor, as opposed to a **GRANGE** which was owned by the church or a religious order. From the old English **Beretun**. Bere = barley + tun = stockade, store.

(1). The buildings in Gloucester St, that included the carpet factory, were demolished and a timber framed building was erected on the site by the Bathurst Estate in 1906.

(2). A small stream runs from under Cotswold Avenue and past the Obelisk to collect in a pool behind the Amphitheatre in wet weather.

During the flooding in Cirencester in July 2007, overflow water from the lake was said to contribute to the flooding of the machine room of the newly opened Leisure Centre. The Centre was closed for nearly four months

Report of Street Committee on the recent Floods

The following details relating to the recent floods were carefully considered by the Streets Committee. A statement has been prepared showing the rainfall for the five weeks ending December 8th, 1915 and including 1894 and 1895 which were rather heavy years. These figures are said to include the heaviest falls for this period of which there is any record and it has been suggested that a rainfall of twelve inches in five weeks has never been reached in this area before. If the years are compared it will be seen that the previous heaviest record is 1926 with 6.30 inches. The present record is nearly double. In addition, the ground was unusually hard and dry and the percentage of run off was exceptionally high. With the heavy rains in November the floods were slight and have caused no serious inconvenience. The first week in December however yielded the exceptional fall of 3.49 inches. This, following the severe rains during November was THE PRINCIPAL CAUSE OF THE TROUBLE. The situation was undoubtedly worse than would have been the case had the water courses been reasonably clear. The whole of the Churn in this area needs to be cleaned out and any encroachment removed. Artificial obstructions for mills which do not now exist should be removed and the watercourse along the Cricklade Road should be appreciably widened. Any hatches in the Urban area should be under the control of the Council.

The question of the Canal Feeder is one which calls for very careful consideration. With the Canal in regular and efficient use it was of no doubt of service during heavy rains. Now, however it is derelict and is in the hands of various owners. Apart from the expense, which will be large, there will of course be the complication of ownership and future maintenance involved.

After very careful consideration the Streets Committee make the following recommendation. The County Council should be approached and facts of the case put before them. If it is possible they should be urged to prepare immediately a comprehensive scheme which shall ensure that at the least the water courses shall be properly cleaned out during 1930. The scheme should deal with all obstructions which exist, together with such culverts as are too small. If these items cannot be dealt with during 1930 they should not be delayed later than 1931. The question of the Canal Feeder to be carefully considered in such scheme.

(signed) E Newcombe
Chairman.

(ref: DA4/135/1 Glos. Records Office)

CIRENCESTER URBAN DISTRICT COUNCIL.

SECOND REPORT of the Street Committee re: Flood Prevention

The Council will remember that when the Street Committee presented their report concerning the flooding it was suggested that the County Council should be asked to prepare a comprehensive scheme dealing with the question as a whole. This was agreed to and the County Drainage Officer, Mr Hindmarsh made an inspection of the district in company with the Council's Surveyor and the Surveyor to the Rural District Council. After waiting a reasonable time the Committee asked for the report of the Drainage Officer. After still further delay a reply was received stating that a survey and report could not be made unless the two Councils were prepared to pay the sum of Fifty Guineas (£52.50p). This Council has agreed to pay 25 guineas (£26.25p), but so far the Rural District Council has not agreed to do so.

In the meantime this Council decided that one thing that would of itself do much to prevent future floods is the enlarging of the culvert which runs under the Whiteway from St Johns Meadow to the Abbey grounds. On instructions from the Committee, the Surveyor visited Colonel Sinnott (the County Surveyor), and put the matter before him. While he was discussing the scheme Major FWB Cripps came in and emphasised the importance of the matter. Col. Sinnott instructed the Surveyor to proceed with the preparation of plans. He also informed him that a new Assistant had been appointed, and that as soon as he took up his duties this scheme would be put into his hands. Mr Jones impressed on Col. Sinnott the importance which the Council attached to the work being completed before the Winter rains. The new Assistant, Mr Tasker duly met Mr Jones on the site, and took levels and details. There the matter rested until his return from holidays when he rang up Mr Tasker to see what progress had been made. As the result of his conversation he put him through to Col. Sinnott, who informed him that there was no money in this year's estimate for the proposed work. He also rather stressed the fact that delay might occur with the Ministry, and that this might throw the work into the early winter with the consequent difficulty of frost. This was duly reported to the Street Committee, and on their instructions a protest was sent to the Clerk of the County Council and to the County Surveyor.

The Committee feel that possibly there may be some misunderstanding on the part of the Rural District Council as to the method of carrying out a comprehensive scheme such as is suggested. The proposal is that the County Council will prepare a scheme with an estimate of cost. This will be submitted for approval to the Councils concerned. On this approval a grant will be applied for. This grant may be up to 75% of the cost of the Scheme, and this cost will cover all fees for surveys, reports and supervision. This will leave 25% to be dealt with by the local Councils. As the work is one of flood prevention the Councils should share in the expense. As however the owners of property will also benefit by the scheme they might fairly be asked to share. In this way it is hoped that an efficient scheme would be carried out at a reasonable charge to the Councils and the estate owners.

W Scotford-Harmer
Acting Chairman
19th October 1930
(ref: DA4/135 /1 Glos. Records Office)

CIRENCESTER FLOODING.

Report by the Glos. County Council Land Drainage Officer

The flooding which occurred in December of last year was during abnormal rainfall in excess of the average rainfall over the last 13 years of 9.7 inches, the average being 2.3 inches. It is necessary to point out that this rainfall in a short period is an occurrence which may never happen again.

The formation of the ground in Cirencester is largely of gravel, and the Town of Cirencester is on a plain. At the time of the occurrence the gravel was undoubtedly loaded with water and the ground was incapable of absorbing any more; neither was there any run off. It is also to be borne in mind that the Town of Cirencester is so built that there is a large roof surface concentrated in a comparatively small area, and a large area of the roads which are waterproof.

I am at a disadvantage at not having seen the development of this flood, but from enquires I have made, the flood developed in Gloucester Street from the neighbourhood of the Whiteway.

A reference to the plan shows there is practically no fall in the Churn from the New Mills to the Whiteway bridge, and one of the causes of the development of the flood at this place was the smallness of the arch at Whiteway, the precipitous fall from Gloucester Street bridge to Whiteway, followed by an almost flat section, as well as the fact that the banks of the Churn, between Whiteway and Gloucester Street Bridge, are so low that any sudden rise of water over the top of the banks and flooding would occur towards Gloucester Street.

It may be said that it would be possible to give an improved discharge on the section of the river – New Mills to Gloucester Street Bridge – by regarding, but I am to point out that this would not be so, as the grading would be impracticable, and in the neighbourhood of General Price's house impossible.

The effect of the discharge of water from the neighbourhood of The Bartons and Cecily Hill has been considered, and the provisional proposal at the end of this report has these culverts under consideration

The effect of the canal Feeder, as a cause of the flooding, has likewise been considered, and it can be taken as final, having regard of the head of water in the Churn in the Barton Mill Pound and the size of the sluice by which the Canal is fed, such discharge as is affected by the operation of this sluice through the long culvert in circumstances at the time of the occurrence would neither contribute to nor relieve, to any extent, the flooding in the neighbourhood of Gloucester Street Cecily Hill.

The scheme to which your Authority's attention would be more particularly directed, when completed sections and estimate of the cost have been secured, will be for the regarding of the lower stream from a point near the "Horse and Drill" public house, passing the proposed recreation ground (at City Bank? rm), under the railway, past the Grammar School Playing field in the London Road (?rm), through the property of Mr Chester-Master, and connecting up from there to the Churn inside the Abbey Grounds near the junction of that river and the stream flowing from the Bartons near the school in Gloucester Street (Powell's School)

The Ordnance levels of this stream are as follows:

Near the "Horse & Drill"	339.49 ft
At the Railway arch near the Mill (City Bank)	344.70 ft
At the arch near London Rd	350.34 ft
At the junction of the streams mention above	356.60 ft
From the junction inside the Abbey Grounds to Gloucester Street Bridge	363.01 ft

The proposal is, therefore, to resection and re-grade from the point mentioned near the "Horse and Drill" to the sluice near Gloucester Street Bridge, providing a means of passing either overhead or underground, from the Abbey Grounds and effecting a holding back of the water by the weir or pen stock, constructing a series of sluices at the Gloucester Street Bridge and the formation of a weir. This method would give the portion of the stream from the Bartons and from the School an accelerated discharge, (at the present time there is only about nine inches)(fall?rm)

And it would pick up, en route, the Cecily Hill culvert; passing under the Town it would collect the water which at present lies in the lowest part of the Town abutting the Town, and would relieve, by lowering the water table in the gravel, the condition generally in the Abbey Ground itself.

The scheme on these lines will not affect in any way the rights of riparian owners on that portion of the river between Spitalgate and New mills, and between Gloucester Street Bridge and Bartons, and will overcome the difficulties with regard to the bridges, etc, which in the proposal to regrade, would create.

This report is based on the assumption that the Whiteway bridge would be reconstructed at a section more uniform to the sections of the bridges below or above, which proposal is, I understand, under consideration by the County Highway Authority.

(signed)

T. Hindmarsh
Land Drainage Officer

Land Drainage Dept.
Shire Hall,
Gloucester
29/10/1930

(ref: DA4/135 /1 Glos. Records Office)

CIRENCESTER FLOOD, 1929

Gentlemen,

Since the submission to you of my preliminary report in October 1930, close observations have been made of the river and contributory causes of the flood of December 1929. The serious obstruction to the flow at Whiteway (the old Whiteway Bridge has been rebuilt, and the river observed under the altered conditions due to this re-construction and some minor improvements effected by the removal of various other impediments.

The Problem

Briefly, to avoid a repetition of the conditions of the 1929, and provide security for the Town from flooding, in anything but abnormal conditions.

The present Direction of the Arterial Drains

I have gone to considerable trouble to find what may have been the original course of the River Churn and the subsidiary streams, and from such reliable records as I have inspected, the present course of the Churn via Whiteway to New Mills follows the Town wall and was part of the defence during the Roman Occupation. This contention is supported by the present levels of the stream that are such that water is retained in this stream by lack of velocity over a considerable length.

The Dalingworth and Gumstool Brooks are undoubtedly adaptations of the old river bed made for impounding water for milling purposes at the Barton Mill, with the result that any discharge from this pound can only be effective if the mill is provided with the adequate sluices to discharge the pound; the tail water passes to New Mills.

Whiteway Bridge

The old bridge had a sectional area of about 14 feet, and the bed of the stream under this bridge formed a considerable impediment to the flow.

The new bridge has a sectional area of about 100 feet, and the abutments have been so constructed that the bed of the stream may be lowered 2 feet under the bridge.

New Mills

Here is a Mill constructed across the main artery followed by some building development on the banks. This Mill was worked by the impounded Churn water from Gloucester Street sluices, and such tailwater from Barton Mill as was passed to it by the culvert from the Schools (Powell's School. rm) into the stream within the Abbey Grounds, part of the water being passed through the Cecily Hill culvert to the Abbey Grounds and hence by the lower level stream to Watermoor and beyond.

The Canal Feeder.

This effluent was in fact a comparatively a small flow of water controlled entirely by the operation of a sluice at Barton Mill, passing a quantity of water strictly limited by the size of the orifice to the Canal basin, and has been eliminated from this report as a cause of the flooding for the simple reason that it discharged into a reach of the Canal giving no fall to discharge any quantity of water due to the water level in the Canal being at almost the same height as the feeder, or put more simply the reach of the Canal, Cirencester Junction- Daneway is 365.5 ft O.D (Over Datum) and the Canal Feeder is 359 Ft OD.

Geological Conditions.

The situation of the Town is upon beds of gravel of Liassic and Oolitic fragments. So abundant are the springs of water from this formation due to numerous faults that the Cotswolds may be called emphatically "the land of rivers and fountains of water".

It is not without interest to consider in this report the probable effect of the fault extending from a point on the Main Ride in Cirencester Park near Pope's Seat in an easterly direction in a line across the lake (in Cirencester Park) to the corner of Querns Lane and Sheep Street to Watermoor. This fault, together with the faults east of Baunton and Stratton would account to a great extent for the breaking of the Springs in the area of the Town due to the deflection and impounding of underground water caused by the situation of the first mentioned fault at a low level relatively to the catchment area.

The springs in this district have the habit of breaking in the Winter period, so much so, that there is a stream at Ampney called Winterwell Brook which in Summer is quite dry.

It is within my knowledge that during the Winter period at Cirencester it is usual for the basements of numerous buildings in the Town to be untenable due entirely to the saturation level of the water rising from the breaking of the springs to nearly at surface level.

These facts point to the necessity of having regard to the effect of the springs together with the rainfall in the catchment area.

Rainfall

The rainfall records submitted to me show an abnormal fall much in excess of any previous experience with living memory

There is not in the country any record made of the flow of streams other than the Thames which is obligatory by Act of Parliament, therefore the recommendations contained in this report are based on such reasonable calculations as can be made from the rainfall records.

In this connection it is to be stated that any works suggested for the amelioration of the present conditions are made from the point of view, that the occurrence of 1929 would fall into the category of what American engineers describe as "a hundred years flood" or one chance of flood in 100 years, and are supplemented by suggestions for works that may improve and control the flow, due to the springs, in such a way as to lower the present excessively high saturation level. It must not be taken from this report that the conclusions seek to deal with the rainfall conditions in excess of those obtaining in 1929, which, in my opinion, would be so abnormal that any engineering works that sought conclusively to do this would be uneconomical.

Surface draining of the Town.

On reference to the map attached (*no map with this report. rm*) it will be observed that the roof (*road?*) surfaces are coloured black, it is a fact that the roads are, almost without exception, waterproof, the water falling there is run off immediately into the drainage system. Some years ago in connection with an improvement of land outside the Urban Area, I had to investigate the effect of water escaping from the sewerage manholes into an open stream on which I was carrying out works, and I was informed then that the sewerage system was considered inadequate and unsatisfactory by reason of the entry of storm water. A repetition of this occurred recently. I suggest, therefore that this factor should not be overlooked in considering the exceptional condition that was prevalent in the 1929 flood.

General Condition Summarised.

As explained above, the natural course of the River Churn and Gumstool Brook has been adapted from time to time for various purposes, and whereas the river undoubtedly had its courses through the lower lying land, it now flows in courses much above this level. The Churn is divided at Gloucester Street Bridge towards New Mills, the channel being large and well formed, and the gradient sufficient to give a discharge of 60,000,000 cubic feet per day, if additional sluicing capacity was provided at the New Mills. The Daglingworth Stream and Churn tail-water from Barton Mill now flow through the Cecily Hill culvert or into the section of the Churn mentioned immediately above, in both cases into unsatisfactory outfalls, the culvert because of its limited capacity and the New Mills stream because of its poor discharge. Both these arteries have the facility of impounding water in the neighbourhood of Gloucester Street, Cripp's Mead and Cecily Hill, from which neighbourhood the 1929 flood developed. To proceed to the outfall of these arteries below the Town, the following observations are made; At the road bridge on the Cricklade Road (Preston Toll Bar Bridge) – this structure, together with the mill pound at Preston Mill below, raise the stream above these places, and to a degree seriously interfere with the discharge of water from New Mills and the Cecily Hill culvert. The condition of the stream where it follows parallel to the (Cricklade) road is neglected and requires clearing and re-grading to the Cecily Hill culvert and the immediate tail at New Mills, with a widening of the stream and reconstruction of the footbridge near the proposed Recreation Ground (City Bank?)

Recommendation

The resectioning and re-grading of the New Mills stream has been considered in view of the obvious difficulty of carrying out a proper regrade between New Mills and the London Road Bridge due to the building development abutting immediately on the river and the difficulty and expense of dealing with the material to be removed; it is suggested that a new grade of and extra four foot (4' 0") be given to the sill of a new sluice to be installed between New Mills sluices and a point twelve chains above, for which provision is made for clearing of the mill pound. It is suggested that the installation of new sluices of reasonable capacity will meet the case here, provided adequate control is exercised, and that, if this is done, the natural scour of the river that would follow will improve this section without further expensive works. The installation of a series of sluices at Gloucester Street to supplement those controlled by Bathurst Estate is provided for, and should, together with those at New Mills be controlled by some authority, preferably the local authority. The control of the sluices is of first importance, and in the report it has been assumed that this would be carried out as follows:-

That the New Mills sluices would be drawn first, and the Gloucester Street Sluices immediately afterwards, so as to ensure the clearing of the New Mills - Gloucester Street reach first. It is not anticipated that it will be necessary to utilise the Barton Mill sluices because of the difference of head at the new sluices at Gloucester Street, for the disposal of the Churn water which would overtax the Cecily Hill culvert, which with its outfall, is left to deal with the Daglingworth Stream and the springs.

The Whiteway Bridge (Spitalgate Lane) having been improved, is now considered adequate, and the experience of the past months demonstrate its efficiency.

The re-sectioning and re-grading of the lower stream from the direction of Preston Mill to the outfall of the Cecily Hill culvert is provided for, to act as an improved discharge for the Daglingworth Stream and Barton Mill tail-water.

It would appear necessary to point out that the road bridge at Preston Mill (Preston Toll Bar?) is not at its present height satisfactory, and that representations should be made to the Highway Authority that the reconstruction of this bridge is desirable as (a) drainage and highway matter.

The Churn has been scheduled a "Main" river within the Thames catchment area as far as the Urban District boundary, and it is not inconceivable that the Thames Conservancy could arrive at a satisfactory agreement with the owners of Preston Mill over a question of water rights, and afterwards pass the Churn water at the level of the Mill tailwater.

General Observation

The effect of a number of small weirs in the river behind General Price's house (where?) has been considered, and as the recommendations herein contained have been made with due regard to economy, unless these obstructions are removed and the river allowed to have its natural fall, the only alternative is the provision of a flood relief channel between Spital Bridge and the lower stream, which will be in the cost out of all proportion to the scheme now proposed.

(Signed
Pp
T. Hindmarsh F.W.R
Land Drainage Officer.

Land Drainage Dept.
Shire Hall Chambers,
Gloucester
23 November 1931.

Estimate of Cost

	£
1. Gloucester Street – New Sluices	150
2. Preparation of abutments	125
3. Removing corner for discharge of new sluice	100
4. New Mills – new sluice	80
5. Preparation of wall for installation	100
6. New outfall into old arch below New Mills, 20 yds excavation, 40yds walling, Bridging above	75 25
7. New Mills – Cleaning Mill pound and disposing of excavated material	250
8. Cecily Hill culvert to Cricklade Road 182 chains @ £3 per chain	546
9. Widening corner at Recreation ground – 6' between Cricklade Road and Recreation Ground including land	50
10. New Footbridge and one new abutment	<u>60</u>
	£1,561
Contingencies 10%	<u>156</u>
	£1,700
Supervision and administration	<u>300</u>
	£2,000

(ref: DA4/135 /1 Glos. Records Office)

CIRENCESTER FLOODING

Examination of the Channel from Gloucester Street Bridge to New Mills

Near Gloucester Road Bridge is a set of three wooden sluice gates which originally maintained a head for milling purposes at Barton Mills, and which were and are used for discharging surplus water down a channel which skirts the northeast side of the town to the New Mills; most of the channel appears to be of artificial construction, having, for considerable lengths a very even section, practically no gradient, and an almost straight course.

It flows immediately outside the city walls, so appears to have been part of the moat defences of the town during the Roman occupation, and its construction was probably contemporary with the building of the wall.

The Gloucester Road sluice gates consist of two 5'6" x 2' 2" gates and a centre gate 5' 6" x 2' 6", and are capable of discharging 26,000,000 cubic feet of water per day.

It will be noted that the heaviest rainfall recorded in the area was an average of 0.34" per day for 5 weeks in November and December 1929, giving a total daily run-off of 13,784,850 cubic feet.

In 1929 however the Whiteway Bridge has a sectional area of 14 square feet, being less than half of the section of the stream above.

It is calculated that the old Whiteway Bridge would normally only discharge 8,000,000 cubic feet accumulated day by day in a flood above the bridge and drowned the orifice beneath the increasing head (of water).

Immediately below Whiteway Bridge the stream is joined by a branch of the Gumstool Brook and then passes under the Bridge and the passes under the bridge at Spitalgate (Norman Arch).

From this point to London Road Bridge is distance of 35 chains (77 yards), there is a regular section of 96 to 100 square feet and a fall of only 1' 6" or 3.43 feet per mile.

If there was a free opening at the New Mills end the channel would be capable of discharging 32,723,000 cubic feet of water per day.

London Road Bridge consists of two arches and has a total sectional area of 66 sq. feet, and can discharge 28,000,000 cubic feet per day.

From London Road Bridge the remaining distance 29 chains (638 yards) has a fall of 4.14 feet on its bed to the sill of the New Mills sluice gates. This reach has a gradually increasing sectional area, and is, in fact, the mill pound. The discharge is entirely governed by the opening of the sluice gates, three in number, which when all are fully opened, are capable of passing 60,000,000 cubic feet per day. At present, however, it is only practicable to raise the centre gate, which will discharge 20,000,000 cubic feet daily.

It is, therefore, a fact that every point on this stream would discharge far more than the actual rainfall, except the old Whiteway Bridge. This conclusion substantiated by the fact that the flooding in 1929 (as in previous years) started immediately above this bridge.

At normal times, with the Gloucester Road and New Mills sluice gates closed, the following mean velocities have been measured at the points indicated:-

- | | |
|--|-----------------------|
| 1. 100 yards below Gloucester Road sluices | 1.79104 ft per second |
| 2. Immediately above the new Whiteway Bridge | 1.3088 ft per second |
| 3. 100 yards below Spitalgate Bridge | 0.6208 ft per second |
| 4. Immediately above London Road Bridge | 0.34826 ft per second |
| 5. Immediately above New Mills - no apparent surface velocity. | |

The total discharge down the channel has been calculated to be 1,493,280 cubic feet per day. The total length of the channel is 37 chains (814 yards), and the fall from sill to sill is 11 feet.

Since the 1929 flood the old Whiteway bridge has been removed and re-placed with a square sectional bridge equal in width and area to the stream.

The main cause of the flood has therefore been removed, but it cannot be said that the whole system is therefore in perfect order. It is advised that new sets of sluices or penstocks should be installed at Gloucester Street and New Mills, which should be up-to-date steel structures of the weir type. These would be more durable, more easily operated and less liable to choke or burst than the present wooden gates, and would give greater discharge.

At the New Mills the sill would be placed 2' 6" lower than the existing one, giving a useful and greatly needed gradient in the reach above. The bed of the channel should be re-graded as shown on the longitudinal section, and the sides should be trimmed in places to give an even cross-section.

Such a channel would give a theoretical discharge of 30,000,000 cubic feet per day at its smallest section.

The foregoing suggestions in no way affect the lower stream from Barton Mill through the Cecily Hill culvert, which is left free to take the Daglingworth Brook and water from the gravel pits at The Barton.

The watercourse beside the Cricklade Road appears to be in fair order, but is reported to flood the highway. The quicker discharge of water from the New Mills would tend to aggravate this, and if it is desired to minimise the trouble, steps must be taken to afford a greater discharge at the Mill below. The road bridge somewhat confines the stream, and is a source of danger to traffic. Its reconstruction would greatly facilitate the passage of water and remove to danger to traffic.

(signed)

Frederick W Rowbotham
Assistant Land Drainage Officer

Land Drainage Dept.
Shire Hall Chambers,
Gloucester.
November 1931.

(ref: DA4/135 /1 Glos. Records Office)

Flood Relief Sub Committee Report

Gentlemen,

As a Sub-Committee appointed to deal with such houses and families as were affected by the recent floods, we beg to hand herewith our report.

As you are aware the water invaded the ground floor of several houses and people had to take to the upstairs rooms. In these cases they had not been able to take any fuel with them and arrangements were made for coal to be taken to them. Cooking was difficult and the offer of the Vicar and Mr Cross to arrange for the soup to be distributed daily was welcomed. This met a real need and was much appreciated. Several families had to leave their houses and many found shelter with relatives and friends.

Whenever possible, help was given to assist their moving. There were some, however, who could not do this, and as Miss Crook and Dr Cossham's executors had placed empty houses at our disposal these were utilised to house seven families. Furniture and bedding had to be hired for these people and gas had to be turned on for heat and light. After the first day or so these people provided and cooked most of their food, though some shared in the food that was distributed. Coal was badly needed in some houses and a distribution of about one ton was arranged by Canon Westmacott. On Saturday advantage was taken of an offer made by Mr Lock and five tons of dry wood logs were distributed and served a useful purpose during the weekend. Later the Committee authorised a further distribution of two hundredweights of coal for each house affected by the floods.

With regard to other items, thigh boots were an urgent necessity and several pairs were purchased; conveyances had to be provided to take the people through the flooded area; they men had to work almost night and day under unpleasant conditions; these are three of the largest items but we suggest that they are not unreasonable. As soon as practicable we did what we could to clean up hoses and gave what help we could to the people. Much damage was prevented by the men moving and packing furniture so that the water did not get to it. As far as possible we tried to pump out cellars which were flooded but in several cases it was a hopeless task.

As will be seen from the accounts, the total cost of this work to the Council is £147:3:4d. This is made up as follows:-

Labour	£37:9:2d
Coal	£30:7:8d
Hauling	£33:0:0d
Boots	£18:19:6d
Food	£11:10:5d
Pump	£6:7:6d
Hire of Furniture	£8:4:7d
Gas	£1:4:6d

All details are given on the accounts.

While it is difficult to thank any in particular where so many helped freely we would suggest that Miss Crook and Dr Cossham be thanked for putting their houses at our disposal and Mr Minchin of "The Bear Inn" who provided dinner for eight of the people in Wellesley House who on the first day were unable to do any cooking, also the Automobile Association for the assistance given by their Scouts.

The cost of digging out the trench at the Canal was £73:15:9d. This makes the total cost of the floods £220:19:1d.

The work of dealing with damage to furniture, loss of time and other details was taken over by the Flood Relief Committee.

February 1930.

(ref: DA4/135 /1 Glos. Records Office)

Report as to the Scheme for preventing Flooding.

The construction of the new bridge at the Whiteway has removed a serious obstruction from the course of the River Churn. The capacity of the new bridge is more than four times that of the old bridge and we can now make full use of the sluices at the Gloucester Street Bridge.

The sluices at Gloucester Street and the New Mills need to be re-modelled, but this does not present any serious problem.

Those at Gloucester Street should be re-placed by a new set and these should be set at a better angle and appreciably increased in capacity. At present there are three hatches each having a waterway of 2' 0" wide. I would suggest four hatches and the waterway of each increased to 2' 6" wide. They should be so constructed as to enable them to be operated in pairs and so that they can be locked in position. These sluices need only be shallow ones and when down the top should be level with the water in the Pound and they would then serve as a spillway for the ordinary flow of the river.

The sluices at the New Mills are not in good order and are not convenient to operate. They should be re-placed and as they are an old pattern it may be that a more modern pattern would be an advantage. In any case they should be made more convenient to operate.

Full use should be made of the tailrace which was opened two years ago. Additional sluices should be fixed across this opening and it would be an advantage if it were made wider.

These sluices also should be made to lock in position.

The bridge carrying the City Bank footpath should be re-placed by a plain girder bridge and the bend of the river at this position should be improved. If this were done the result would be a much more efficient waterway.

The present bridge proved quite inadequate during the floods on 1929.

With regard to the condition of the rivers, the River Churn needs some measure of attention along such part as flows through the Urban Area. The river has been narrowed in places and there are obstructions due to weeds, bushes and trees.

On the stretch from the Gloucester Street Bridge there are several encroachments. These should be cleared and the river left at it original width. In St John's Meadow an acute bend should be eased and the river widened in places. In the Abbey grounds the banks should be carefully trimmed and every obstructive bush or tree removed. The bend at the junction of the two streams could be greatly improved and there are obstructions due to disused sluices.

From the London Road to the New Mills the river needs well cleaning out, the banks trimming back and there are several bushes and trees to be removed. From the New Mills to the Cricklade Road the banks need well trimming and there are several bushes and trees to be removed. The same remarks apply also to the course from the old tailrace opening. Along side Mr Pullen's field there is the remains of an old sluice. If this is now longer used the walls should be taken down to give a wider waterway. When the Churn reaches the Cricklade Road it receives the water from the lower stream (the Daglingworth/Gumstool Brook) and from this point the Churn is little wider, if any, than either of the two joining streams. I have been told that this part of the river was made appreciably narrower many years ago. Whether this is true or not, I consider that the River Churn should be made wider from the point where it receives water from the lower stream.

The Daglingworth/ Gumstool Brook come through the Barton into the watercourse which passes the Swimming Baths and enters the culvert near the bottom of the Cecily Hill. It is in fairly good order from the Barton Mill House to the entrance to the culvert. Where it discharges in the Abbey grounds the stream is silted up so as to restrict the flow severely. Along the whole length of the stream there are obstructions. Where it passes along the Waterloo the stream has been narrowed by encroachments which should be removed so as to leave the stream at its original width. In the grounds of Oxford House certain improvements might be effected. From the London Road along the back of Purley Road there are several small obstructions. Where the stream passes through the Grammar School recreation ground there is a need for trimming the banks and there are several obstructive bushes and trees to be removed. Through the land recently purchased by the Urban District Council, improvements might be effected by widening in places and especially by the easing of two bends to give an easier flow. The footbridge at the City Bank has already been mentioned. From here to the junction with the Churn (on the Causeway, Cricklade Road), the stream needs clearing out and widening.

If it is decided to remove the obstruction at the mouth of the culvert in the Abbey Grounds it will be necessary to re-grade the bed of the stream for some distance as the fall on this length in the Abbey grounds is only 1'2". Apart from removing the obstruction this work may have a beneficial effect. The bed of the stream will be lowered some 1'6" to 2'0" and this should have the effect of lowering the level of the water in the gravel beds at this point.

The Gumstool Brook raises an interesting point. There is an opening under the footpath from the main stream which passes part of the water, behind the (Powell's) School and through the culvert under the Whiteway to the Churn. There is also a sort of spillway from the old tail race at the Barton which joins this stream. In addition there is a hatch in the Barton Mill pound which has been used for flooding the (Cripp's) Meadow. This hatch is fixed almost on the bed of the pound and when raised it allows a considerable quantity of water to pass. It was the breaking of this hatch which precipitated the flooding of Gloucester Street in 1929. It is a moot point whether a simple hatch should be fixed at the point where the stream passes under the path. It would be useful to isolate the meadow in case of emergency.

The Daglingworth Stream has been cleared for a little way but it should be thoroughly cleared towards Daglingworth as far as the UDC Boundary. This stream has not a good waterway above Barton Mill House and there is room for improvement near the gravel pits. The arch passing under the Canal Feeder appears much too small. In the field which is rented by the UDC there is a watercourse which needs clearing out.

When dealing with the obstructive growths it will not be sufficient to trim them. Anything that may have a tendency to grow into the stream should be cut out completely. It is not enough to consider the normal flow: a free passage should be fully assured for any normal winter rain. There are two other forms of obstruction which require attention. One is the stringing of wires across the stream to prevent cattle straying when the water is low.

This is quite reasonable providing that one of two precautions is taken. The obstruction should be so constructed as to lift with the flow of water, or else it should be removed immediately the stream begins to fill. If not, the debris in the stream collects on the wires and causes serious obstruction. The second is the placing of planks in the stream apparently to conserve the water in dry weather. The same remarks apply to these obstructions. It is absolutely essential that the free flow of the streams is available before the really heavy rains commence so that every use can be made of the streams to pass the water on.

One factor I consider of the greatest importance. When the sluices are reconstructed, arrangements should be made for the UDC to have full control. The reason for this is that there would be no question to who was responsible for the sluices in the case of heavy rain, and valuable time would not be lost.

If floods are to be avoided it is vital that the water be passed on with as little delay as possible. If the Council were responsible it would be an order that some of the sluices be opened at the first sign of heavy rains. The rivers would be watched and further sluices opened as required.

The question of providing sluices near the London Road bridge to pass water from the Churn to the lower stream (at Purley Road?) has been considered. This might prove an advantage in case of

emergency, but I would suggest that the remedial measures suggested in the previous paragraphs should be dealt with first.

I am, Gentlemen,
Your obedient servant
Wentworth Jones

Council Chambers,
Cirencester,
December 8th 1931.

(ref: DA4/135 /1 Glos. Records Office)

From the "Wilts & Glos Standard" September 16th 1999.
Letters page.

WATERMOOR FLOODING

Sir,

Your news item regarding flooding at Watermoor, and in particular at the rear of the houses in Melmore Gardens, adjoining the lorry park, raises interesting legal questions as to the liabilities or non-liabilities of the various bodies public, private and ecclesiastical involved.

The River Churn, in passing through Cirencester, has been so amended by successive landowners, mill owners, and others, including the Abbey, that the original line is difficult to follow.

First, the Dubunium and later the Romans, both used the river for domestic and defensive purposes, later, land-owners built mills on the river of which there were at least three; Stratton, St Mary's (New Mills) and Siddington*, and probably other smaller weirs used to irrigate water meadows to provide an "early bite" for sheep and cattle grazing in the meadows.

Over the centuries there has been much money spent and probably some blood spilt in quarrels between the conflicting interest of mill owners and farmers, and the problems at Watermoor are merely a continuation of the conflict over the vexed question of water levels.

In the first place the very name "Watermoor" indicates that this was indeed subject to periodic flooding and kept clear of such problems only by assiduous attention to ditches and the other watercourses in the area.

The ditch between Melmore Gardens and the lorry park** is the outfall of an old culvert which carries surface water from paved areas in the south of the town and is believed to have carried the spillway from the old canal basin which is situated at the bottom of Querns Hill with its junction with Sheep St. It is also reputed to carry overflow water from the ornamental lake in Cirencester Park*** and may have carried excess water from the moat around the Castle.

So this is a very old culvert which might originally have discharged to the river nearby prior to the building of Siddington Mill.

On the opposite side of Cricklade Rd in the front garden of the Colt Car Company building (now Mitsubishi Motor Co.), the tail race from New Mills joins the remains of the main river, to start to flow into the head-race of Siddington Mill. The level of the water in the river is progressively raised relative to the adjoining land to provide the working head to the water wheel, (which I believe is still in evidence at Siddington Mill).

Land to the north of the dual carriageway at Preston Toll Bar drains to a series of ditches and drains to pass under the main river and join the side ditch just beyond the Tesco car park and ultimately joins the Churn below the tail race of the mill.

Consequently the person who derived benefit from the mill, the mill owner, must have had to accept liability for constructing and maintaining the side ditches so as to provide his neighbours with the natural drainage which he, by reason of construction of the mill, had obstructed and this so long as the mill operated.

The residents of Melmore Gardens have not improved their cause by obstructing the ditch with garden refuse, and rubbish of all kinds. Clearing the ditch is now going to be a major operation to remove fences and footpaths and not a

few trees to even get to the site to start work. (*Soon after the flooding referred to in the letter, the stream was culverted as far as the goods inward entrance to Tesco Kingsmead, The culvert was broken into during modernisation work at McDonalds in October 2016. RM*)

So when our local MP calls together the meeting of minds to determine liability and a financial solution, he might like to consider whether there has been a contingent liability going back several centuries on the owner of the water rights at Siddington Mill or if he cannot be identified and they have not been absorbed by subsequent environmental legislation by the person or persons to whom the advantages of the water rights accrue.

This puts yet another twist into the tangled skein of argument about water rights in and around the town which has provided over the years, rich pickings for lawyers and others engaged in the profitable business of talking but not doing and might well continue to do so for some time yet.

Yours etc
TJ Lees
Kemble

*The writer left out Barton Mill, the Abbey Mill in Dollar St and Langley's Mill in City Bank.

**The lorry park closed in 2014 and was opened as a Premier Inn September 25th October 2016.

***The lake traps water that comes from springs that rise from high ground below Deer Park School

The following news item is from the "Wilts & Gloucestershire Standard" for 23rd March 2000 –

Work starts on clearing blocked ditch.

Work is under way this week on clearing the blocked ditch, which last year, led to floodwater surrounding homes in Melmore Gardens, Cirencester.

The £4,000 scheme jointly funded by Gloucestershire County Council (GCC) and Cotswold District Council (CDC), was one of those demanded by the Standard in our drains campaign, launched after homes in several areas of the town suffered downours during the winter which in some cases led to raw sewerage floating around and beneath homes. Our call, backed up by interviews and photographs, and accompanied by pressure from the Liberal democrat group on CDC, was quickly taken up by Thames Water and the local councils.

The Melmore Gardens watercourse is in fact the responsibility of riparian owners – those living along its banks – but the councils agreed to take on the work to get it done quickly.

This week, workmen, using earthmoving equipment, were clearing brambles and undergrowth and clearing out the ditch, choked with garden waste, old bicycles,, bundles of newspapers and other rubbish.

Residents have been told that future maintenance of the watercourse will be their responsibility."

(The watercourse was subsequently put into a culvert that exits beside the Tesco superstore)