

FLOOD RISK in TWIGWORTH

A record of failure

George Sharpley

Following increasing local concerns about worsening surface-water threats to properties and the failure of sewerage pumping stations, members of the communities of Down Hatherley and Twigworth met via Zoom on 29th March and again on 5th May 2021 with:

David Hudson, Environment Agency
(Environment Manager, Gloucestershire)

James Blockley, Gloucestershire County Council
(Principal Flood Risk Management Officer)

Sandra Ford, Tewkesbury Borough Council
(Head of Development Services)

Matt Jeynes, Severn Trent Water
(Waste Team Manager Worcestershire & Gloucestershire)

At these meetings we presented evidence of surface-water (pluvial) flooding during the winter of 2020/1, especially on the new building sites at

Twigworth Green (Bovis Homes)

and

Yew Tree Farm (Wainhomes)

There follows a summary of the evidence we presented.

This map shows both building sites marked in red. The dotted lines show sites with planning applications in process. The blue locates the photograph on the following page.



TWIGWORTH GREEN (24 December 2020)



Some weeks later, when the floodwater had to some extent cleared, the following photographs were taken from a drone.

The first two pictures show Twigworth Green.

The third page shows the neighbouring Wainhomes site at Yew Tree Farm.

TWIGWORTH GREEN (5 February 2021)



TWIGWORTH GREEN (5 February 2021)



YEW TREE FARM (5 February 2021)



These aerial photographs were taken 5-6 weeks after the worst of the flooding: the 'lake' on page 5 was pictured at that earlier point.

These photos from above nonetheless show how this water tends to stay put - and that after weeks of pumping by several industrial pumps from the Twigworth Green site into the Hatherley Brook.

The following map shows the authorities' pluvial flood map, with the building sites marked in red.

This map is used by developers when they submit their Flood Risk Assessments.

Pluvial floodrisk map



At our meetings with agencies, members of the community pointed out the inaccuracy of this flood map.

It is not the first time the vulnerability of this area to surface-water flooding has been raised with councils and agencies.

It is not the only location where surface-water flood risk is very poorly mapped.

On 16th July 2021, in further exchanges following our two meetings, David Hudson of the Environment Agency replied to some of our concerns:

George Sharpley, resident of Twigworth:

“Am I correct to infer that you agree that the official pluvial flood map is not accurate (and therefore not a safe guide for planners)? The evidence is overwhelmingly so, but it needs to be acknowledged by the relevant authorities.”

David Hudson (Environment Agency) in reply:

“They (the flood maps) are, I believe fit for purpose.”

On 28th June, after similar email exchanges, James Blockley of Gloucestershire County Council wrote the below about Twigworth Green, despite our sharing video and photographic evidence of the site overwhelmed with flood water, of pumps channelling water off the site, and of properties neighbouring the site experiencing unprecedented water ingress.

“Twigworth Green’s SuDS performance* over the winter was not reviewed by the SuDS Engineer; we believe there was no need as there were no flood problems over the winter 2020/2021 that could be attributed to the developments at Twigworth.” James Blockley, Glos Cty Council, 28th June 2021

* specially-designed attenuation ponds

The development at Yew Tree Farm was approved by Tewkesbury Borough Council on 17th November 2019.

This was on the strength of Council's flood-risk experts accepting that Yew Tree Farm was at '**very low to low risk of surface-water flooding**'.

1.2 Drainage Technical Note: Yew Tree Farm – July 2019 – The Engineering Studio ES054 – Twigworth (developer's flood risk assessment)

In September 2020 the sustainable drainage for Yew Tree Farm was approved. In December the same year, the site was flooded with surface water which prevented all construction work for nearly two months.

The rainfall data shows the rain which caused this flooding was unusual, but not exceptional, as say in 2007.

Meanwhile the concerns and flood evidence of residents of Twigworth and Down Hatherley continue to be systematically disregarded.

Tewkesbury Borough Council will soon be making a decision on a planning application for 164 houses, in a field between Brook Lane and Ash Lane, which borders both the Yew Tree Farm and Twigworth Green sites.

This below is from the letter of the statutory consultee on flooding, Gloucestershire County Council's Local Lead Flood Authority (13th Sep 2021):

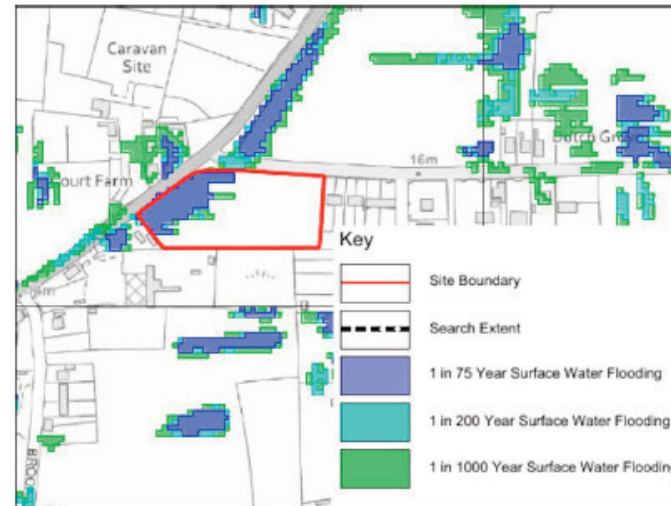
“Surface water flood mapping indicates the site is not at risk of surface water flooding.” David Lesser, Sustainable Drainage Engineer

A picture of the site follows.



December 2020

Here is another inaccurate flood map from a recent application for 32 houses at the corner of Down Hatherley Lane and the A38. The flooding shown in the three photographs happens a lot more frequently than 1-in-75 years as shown in the diagram. The flooding of the road (bottom left) apparently last happened just after the reign of William the Conqueror.



This house close to Ash Lane is one of a cluster under construction. The blue pipe is transferring water to the drain. Is it any wonder residents were flooded and the pumping station failed when water that would previously sit in the fields is added to the sewers?



January 2021

And so it goes on.

The same can be said for sewerage. The Ash Lane pumping station in Down Hatherley failed last year, overwhelmed with flood water, which contributed to an unprecedented level of flooding of houses and properties in the Ash Lane area. It is evidently vulnerable to failure during major rainstorms. The pumping station has received some remedial attention from Severn Trent, but whether it will cope with the huge increase in usage from new developments remains to be seen. Residents believe that the next flood will once again cause it to fail, if it doesn't before. If the JCS allocation is followed through, it will be expected to cope with the sewage of hundreds of additional houses.

Two pumping stations in Twigworth also failed during the flooding last winter. These, to my knowledge, have not had any remedial work, despite being a part of the sewerage route, along with Ash Lane, for new developments.

We brought this to the attention of Severn Trent's Matt Jeynes, including the daily stench emanating from the Twigworth pumping station close to the entrance to Wallsworth. This remains ignored, except of course by residents close by.

The poet Ivor Gurney called these fields now under development Gloucestershire's 'water meadows'.

These meadows have for centuries acted as a sponge, holding water, with a very slow discharge.

The failure of people charged with monitoring our flood risk to record accurately the flood potential of these meadows of course puts many of us at risk. The truth is, soon, the sites under construction will indeed be relatively free of flood risk. For the ground will have been raised and covered with tarmac and concrete - with inevitable consequences for others nearby. The counter argument is that the attenuation ponds (SUDS) will compensate so that water run-off represents no greater threat off site than it did before. Of course, it becomes increasingly difficult to check such an assertion, as who has recorded or measured the previous run-off? And the assertion is ever more wobbly when we see the hopelessly inadequate assessments of flood potential before building started.

As those of us living close to these sites see an increasing volume of pluvial flood-water enter our properties, I suspect our official experts will try to pass it off as climate change.

George Sharpley
Twigworth
12th January 2022

If you have evidence or comments to add, please contact your parish council:

Twigworth: George Sharpley: gdasharpley@gmail.com

Down Hatherley: David Evans: dave180750@hotmail.co.uk

Also available:

Rainfall Patterns in Twigworth (George Hedley & Neville Cowin, 2021)

Observations on the Hydrology of Twigworth (Professor Ian David Cluckie, FREng, Acad.CAE, FRSA, 2017)

Video: floodwater flowing off Twigworth Green (Chris Weaver, 2021)

Twigworth Flood Threats - The Village Evidence (George Sharpley, 2017)

And how we got into this mess in the first place:

Poor planning leaves flood threat worse for Twigworth (George Sharpley, 2021)