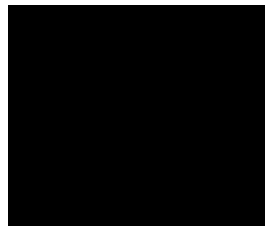


River Medway (Flood Relief) Act 1976

The Environment Agency's Application to vary the Scheme for the operation of the Leigh Flood Storage Area

Objection to the application

FROM Jeremy & Katharina Thompson



Photograph, December 2013: The garden, greenhouse & shed at [REDACTED] were flooded. The Leigh storage area impounding the existing area to its maximum depth at 28.05 metres of AOD.

1.INTRODUCTION

The [REDACTED] is positioned at the bottom of Rogues Hill with the garden extending down to the river Medway some 20m from the house. The flood storage area (FSA) occupies a small part of our garden (as defined in the 1976 act). The house is Grade II listed, sits in an Area of Outstanding Natural Beauty and is in a Conservation Area.

We have lived at [REDACTED] for over 25 years. In this time, we have kept a watchful eye on the evolving plans from the Environment agency (EA) to expand the flood barrier. I have attended meetings from before 2010 when I believe a proposal was originally announced to raise the height of the water level stored in the FSA.

Subsequently to that date, particularly from 2015 onwards, I have met with the EA and their representatives. At every meeting, I have made clear my concerns over the impact of their inappropriate modelling and misguided approach to this project expansion. The project team at EA gives little or no consideration to the significant impact on the village of Penshurst overall or the property and land owners specifically affected.

2. Reasons for objections

2.1

We remain very concerned about the application to amend the scheme for the operation of the FSA. We fundamentally believe that the EA has not sort to fully understand the impact of the FSA and any changes to the barrier on the village of Penshurst and on our property.

2.2

At meetings we have had with the EA, I have stressed the need for more accurate measurements of the topographical land levels and resultant water ingress. As a result, they did produce much more accurate land measurements in July 2018, which showed the likely water ingress to my property quite clearly. See appendix H in the application, showing the dark blue natural flood outline. This line appears to have expanded beyond the “limit of land to be acquired” as a result of the 1976 Act, visible in appendix J of the November 1975 River Medway Flood Relief Plan. It is also worth noting in the map, demonstrating an enlarged section of my property. Appendix H excludes the Eastern extent of my property which is where the lowest land levels are and the areas which are most likely to flood.

2.3

At meetings with the EA and their representatives, I have raised concerns that they do not understand the flows of water at Penshurst when the flood barrier is in operation. I believe this is fundamental in determining the impact of flooding on Penshurst and its residents. Indeed on at least two occasions, employees of the EA have told me they have never visited Penshurst when the barrier is raised. They said their focus was on the operation of the barrier and the flooding downstream, not on Penshurst. This flawed position together with

inadequate consultation and communication with all the connected parties cannot be consistent with finding an appropriate even-handed outcome for this planned expansion. In any situation like this, a majority of land and property owners are set to gain but a minority inevitably lose out. A concerted effort needs to go in to control the negative impact and compensate property and landowners for it appropriately.

3. Issues For Penshurst

3.1

The valley in which Penshurst sits is a natural flood plain with a pinch point between the village church to the North and Bridge House and The Yews to the South. In between are two bridges and about 80 metres of road which is raised as a causeway in an attempt to allow traffic to pass despite flooding.

This is a critical area for the whole village as it is the main road B2176 to Tonbridge and Tunbridge Wells to the South and Hildenborough and Sevenoaks to the North. Its closure causes huge disruption to the area, unlike Ensfield Road to the Northwest which is broader, quieter and designed to close with enough turning space.

At Penshurst Place, the concrete road going East from the entrance arch to Ensfield Road floods quickly after the barrier is raised, causing difficult access to their car park, facilities and is the only route to the Nursery School at Wells Farm. That road was built and raised to avoid this issue and is clearly failing in its purpose when the barrier is at its current highest position.

In addition, for us at [REDACTED] and [REDACTED] the effect is just as quick as water comes up through the ground level effect in the fields by the causeway before the Eden and Medway have broken their banks. When this happens, the causeway is quickly underwater and as seen in 1999/2000, 2013/2014 and 2019/2020, soon after the road is impassable to all traffic.

Descending Rogues Hill is very tight with very limited visibility. You reach the bridge very quickly where there is no turning space. From the opposite direction coming through the village you turn sharply right and are immediately at the other bridge again with very little turning space. Unsurprisingly, when the flood water is running high, the causeway becomes a dangerous traffic nightmare.

Southern Water back in 1976 partially recognised these issues by paying compensation, including modest amounts to the residents on the South Side of Penshurst High Street. The EA appears to have rewritten history and geography here by ignoring the whole issue.

3.2

I have said at many meetings with the EA over the last 5 years that they need to do a very detailed traffic survey of the village, both under normal conditions and when the flood barrier is fully utilised. Back in 1976, Penshurst was a sleepy village but now that is far from the case. The B2176 is a very well used local road, including traffic from all emergency services. There are several timetabled bus routes through the village plus many school pick up/drop off buses. Commuters are very active at the beginning and end of the day with many main line stations and business parks within reach. Not to mention the vast increase in `white van traffic` for both work and delivery services plus heavy farm and building traffic. It is obvious that a detailed study is needed by Sevenoaks Council Highways Agency to fully understand the traffic implications of any expansion to the FSA. To the best of my knowledge, nothing of this kind has happened to date. In fact, it would appear that Sevenoaks council has naively believed the EA's view that the changes will have no impact on their constituents at Penshurst.

When the road through Penshurst is closed, chaos ensues as detouring West via Fordcombe is very tight and can easily take an extra 15 minutes. Going East via Tonbridge is much longer and with heavy traffic and flood detours can easily take 30 minutes. As the EA tell us "Because of climate change" and the increased level of the barrier proposed (28.05m to 28.65m) we must expect to see roads closed for twice as long, for a 8 day period, as the water takes longer to clear. This is an extremely serious level of disruption for the 800 residents of Penshurst and residents of the local area. The EA should be pushed hard to investigate and properly measure this meaningful level of inconvenience for all.

4. Geology

4.1

Geology is another significant local feature that the EA find easier to ignore. The bulk of Eastern Penshurst sits on a natural outcrop of very porous Wealden sandstone. This has been used extensively in building Penshurst Place and many local houses. I would argue, and have done so with the EA, that understanding this is essential in trying to calculate the flows of water during flooding, exacerbated when the barrier is in use.

With this in mind, viewing the valley at Penshurst when it starts to flood would show how quickly water flows through the underground water table. You can clearly see in many fields and our garden water bubbling up through the ground to start the flooding process well before the rivers break their banks.



The garden at [REDACTED] underwater 24/12/2013

4.2

I believe a detailed geological survey is essential and it would quickly prove that some of the EA's modelling assumptions are seriously flawed. It explains why the water flows quickly upstream through Penshurst when the barrier is raised. Indeed the EA's projection at an increase of 0.5 m to the height of the barrier would only result in an increase of 0.1m of water passing through the village is seen as laughable by the residents. It would also appear to run contrary to the assumptions Southern Water made as part of the 1976 Act.

5.RIVER LEVELS

5.1

It is clear that with living very close to the rivers Medway and Eden confluence, understanding the FSA is a regular topic of conversation for myself and other residents, such as Kevin Storey. In the last 25 years, there have been some 5 major flooding issues where the top water levels at the barrier were 27m above sea level or higher. These were December 1999, the last two months of 2000, December 2013 (the highest at over 28m above sea level), December 2019 and February 2020.

5.2

On all occasions, the background was the same, significantly they all occurred at the beginning or end of the year i.e deep mid-winter. The tendency was to be after an extended period of very heavy rainfall. This was coming from persistent frontal weather systems travelling from the Atlantic, moving from the South West in an Easterly direction. Persistent rain filled up the water table to saturation point here in Kent which is normally a county which enjoys much drier weather than most of the United Kingdom.

5.3

The ground is constantly awash and water rushes down to the valleys to the point below Well Farm where the Eden and Medway rivers meet. Thereafter, the water speeds rapidly Eastwards to the sea. The EA's explanation that raising the barrier increases the water in the valley from the bottom may suit their argument but makes no sense. The valley is already saturated so raising the barrier traps more water in the flood plain and therefore increases the height of the water effectively filling it from the top.

5.4

I am sure proper measurement of the flood water will show this higher water level, quickly moving back upstream to Penshurst and beyond. Meanwhile, as well as heavy rain there are usually extreme winds driving the water down the valley to the pinch point at the causeway. One can see this with marked wave patterns moving in an Easterly direction often over 1m in height. I would imagine this is a result of the flood water being driven down the valley meeting with the water backed up by the raised barrier. This is no doubt exaggerated by the valley's variable topography to which the EA refer. Thereby significantly increasing its depth, spread and therefore flooding impact at this crucial Penshurst pinch point.

5.5

To claim that the increased barrier height would make little difference to water levels in Penshurst clearly runs contrary to historic data. I can only imagine this is a result of some very optimistic assumptions buried deep within the model. The predicted work carried out in the mid 1970s would have appeared to have been more realistic only to have been overtaken by significant changes in weather patterns and rainfall levels. I conclude that the modelling carried out must be deeply flawed, not in terms of its approach or mathematics but it assumes wildly optimistic, self-serving assumptions. Similarly, the land level measurements that took place in Penshurst some years ago were very inaccurate. These were corrected by a very detailed survey undertaken by JC White in July 2018. This survey clearly reflects where the water goes and shows that it is quickly beyond the area of land acquired under the "Right to Flood" facility in the 1976 act. Following the same precedent, the flood modelling should all be redone using transparent and more realistic assumptions. This is the only way that the swift and overwhelming flood water effect on Penshurst can be understood. Logically, it is then that appropriate measures and compensation can be given to residents and land-owners who will suffer the consequences with the significant impact on their livelihoods and devaluation of their property.

6.Flooding; Frequency, Depth & Flow Rates

6.1

We believe the flooding in 2013/2014 & 2019/2020 showed a significant expansion of the Natural Flood Outline. The barrier was in full operation during these periods and this clearly demonstrates that the flooding is greater, deeper and lasts longer than any natural flooding.

6.2

Prior to the last year, the EA have constantly referred to the 1 in 100 years plus climate change as the scenario to be defended against. It was also frequently stated that this was the scenario used in their plans. In the current application, the EA have suddenly changed this to a 1 in 75 year scenario.

Why the change? Particularly as it is contrary to the national guidance. With at least 3 major floods in the last decade, the EA have clearly got a much more frequent issue to attend to.

6.3

Many people in Penshurst have requested measuring water depths at the causeway with Kevin and I particularly outspoken on this matter. After 2013/2014 the EA did install a measuring post on the river bank opposite the Bridge House. For those of us who monitor water depths the top of this post is about 1.5m below the maximum levels reached in those two flood incidents. The measuring post is wholly inadequate, is this deliberate or incompetence?

6.4

Flow rates are also an issue subject to recent change by the EA. The current scheme allows for the FSA to be used when the rate of flow in the river Medway exceeds 35 cubic metres / second. Since 2011 the EA have only used the FSA when flow rates exceed 75 cubic metres/ second. They say that “going too early” would leave less storage capacity and indeed there is some evidence building that letting water flow through Penshurst more quickly could manage flooding more effectively. However, retaining the right to raise the barrier triggered by the lower flow rate could start impounding too soon. With a higher maximum height of the barrier, this could significantly increase the flood levels around [REDACTED] and Eastern Penshurst.

6.5

The EA's intention to spend money on new embankments may well help shield additional properties in Hildenborough, for example, from flooding when the barrier is fully raised. However, we would be very concerned that this could alter the balance of water in the FSA thereby increasing the amount of water held upstream at Penshurst.

7. Other Issues

7.1

We have reached out to Tom Tugendhat, our MP and have had a number of conversations with Matt at his office. Tom has a conflict of interest with this proposal in that he represents more constituents in Tonbridge and areas to the East who would benefit from the scheme than West of the barrier who are likely to suffer.

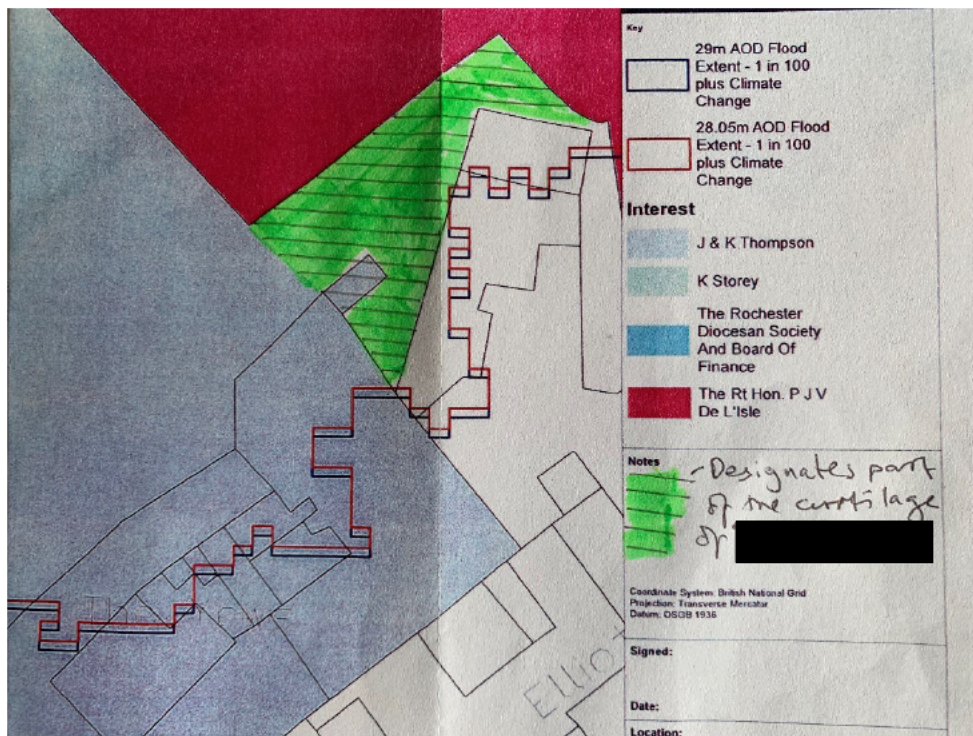
He indeed spoke in the house in support of the EA plans however he has made it clear to us that this support is predicated on the residents of Penshurst being looked after and the appropriate compensation paid for the increased flood risk to land and properties.

7.2

The detailed mapping and measuring of our property [REDACTED] shows a small area to the East of my land (the attached map shows this) that used to belong to the estate but for the last 40 years or more has been part of the curtilage of [REDACTED].



**Flooding to the shed
& green shaded area
(see [REDACTED] map)
24/12/2013**



Land marked in green on the map indicates part of [redacted] curtilage at the Eastern end of the property

I have spoken to Ben Thomas at Penshurst Place and he is quite happy that this is the case. He recognises that we have improved this parcel of land and indeed added brick walls creating better security for the adjacent Enterprise Centre. We will follow this up and make this formal with the Land Registry.

We have told the EA and their representatives about this on many occasions as it is the lowest lying area of our property and does flood by over 1 ft when the barrier is fully raised. The photo attached shows this area of the garden and the adjacent field, owned by the Estate, underwater in 2019. The same thing happened in 2013/2014, also flooding the old barn and a shed in the same piece of land. On both occasions I did not make a claim against the EA on either occasion as I did not want to trigger an insurance claim for flooding on this property. We have never made an insurance claim for flooding on this property, and neither did the previous residents.



Photo of flooding in the greenhouse 24/12/2013

7.3

In the June 2020 submission to DEFRA to amend the Leigh Flood Storage Area maximum stored water level are a number of supportive letters. These come from a variety of MPs, Councillors and interested parties all of whom represent areas to the East of the FSA. Unsurprisingly, they are all in favour of the scheme and by contrast there is no representation from anyone whose interest lies to the upstream of the flood barrier who might understandably have significant objections.

7.4

There was a presentation last year by the EA to the Penshurst Parish Council that was open to the public. I attended and there were over 50 villagers present who made serious and strongly worded complaints about the proposal. The EA representatives promised to take note of the comments and have correspondence with the Parish council to make sure our views were properly reflected. I can see no mention of these views in the detailed document of submission which again clearly reflects how little consideration the EA gives to Penshurst and its residents' views. We think this is an unacceptable bias from a public body in a significant and sensitive application.

8 .CONCLUSION: A CALL FOR A FULL, INDEPENDENT INQUIRY

8.1

Some 4 years ago when the first serious meetings with the EA representatives took place, they stated there was a strong desire to gain information from us, share background with us and keep us informed with their progress. Since that meeting, they have been consistently unhelpful, we have not been provided with the information promised and they have adopted the attitude that their proposal does not affect Penhurst and therefore our views carry no weight. I had to resort to a request under "The Freedom of Information Act" to extract some information which was still very slow to arrive and given grudgingly. Information about compensation paid after completion in 1982 was never provided. This is important to me as it took until 1985 for a sum of £10,000 to be paid to the then owners of the [REDACTED]. Was that the total sum paid and was there a protracted dispute ? Some of us contacted Southern Water, who at that stage were responsible for the project and they said all papers were handed over to the EA in good order. Dalcour Maclaren have been representing the EA in recent years and they have been far from impressive and just appear to have the role of an unhelpful buffer between us and the EA.

8.2

As you can see from the issues explored herein, the proposal to increase the flood storage area would have a significant and potentially life changing impact on the livelihood and safety of Penshurst residents and local traffic attempting to pass through the causeway. It has been frustrating to have been promised consultation throughout the process, and then to see such a lack of transparency. For example, four years ago the EA said they would pay for reasonable legal and advisory fees for us relating to understanding and challenging their proposal. This offer was subsequently withdrawn in totality without explanation.

8.3

For the sake of clarity, however I would like to state that my intention is not to stop an expansion of the FSA by way of raising the water retention height at the barrier. I realise that thousands of properties in Tonbridge and further downstream of the Medway will benefit significantly from this. One could however consider how wise the planning authorities have been in granting permission for so many properties to have been built in a well-known flood plain. My argument is that a full impartial, detailed inquiry of the impact of the increased flood risk on Penshurst should take place as soon as possible and be made public. My view on the short coming of what has happened, the absence of actual measuring of water depths at the causeway pinch point in Penshurst being the most important. Following on from that should have been appropriate adjustments and mitigation measures but more realistically significant compensation. The value of our property has already been significantly undermined and the expansion has not yet taken place. This is why we are going on record with a formal objection to expand the size and depth of the Leigh Flood Storage Area, based on the deeply flawed analysis provided by the EA in their application.

Jeremy & Katharina Thompson, Penshurst, 10th July 2020.