

RM007 Mr and Mrs Thompson's objection to the Environment Agency's Application to vary the Scheme within the River Medway (Flood Relief) Act 1976

Environment Agency technical response, September 2020

1. Introduction

The Yews 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.

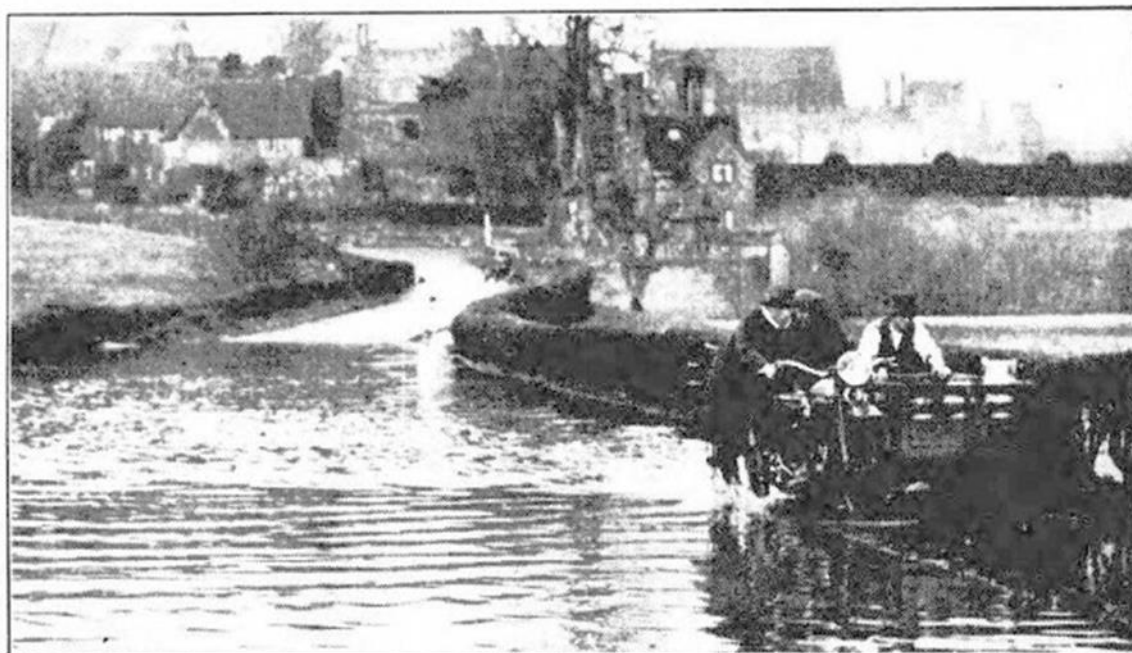
We have lived at The Yews for over 25 years. In this time, we have kept a watchful eye on the evolving plans from the Environment agency (EA) to expand the flood barrier. I have attended meetings from before 2010 when I believe a proposal was originally announced to raise the height of the water level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

Environment Agency response to point 1:

The land adjacent to the Rogues Hill causeway is particularly vulnerable to flooding. The photograph below from a 1937 newspaper article (Figure 1) shows flooding on Rogues Hill. In 1968 the flooding at this location was so severe that the road bridge over the River Medway was damaged and a temporary bridge had to be installed. These events demonstrate that Rogues Hill was vulnerable to flooding prior to the construction of the Leigh Flood Storage Area (FSA).

THE COURIER 29 JANUARY 1937



The recent heavy rains have produced some of the worst floods in Penshurst for 40 years. This is a portion of the road to Bidborough.

Figure 1: Flooding of Rogues Hill in 1937

In the development of the Leigh FSA expansion scheme, the Environment Agency has used the 2015 Medway flood model to understand how operation of the Leigh FSA currently affects flood water levels upstream of the main embankment, and to understand how the proposal to increase the maximum impoundment level by 0.55m at the control structure will further change these water levels. The hydrological industry uses modelling software, mapping techniques and topographical and rainfall data to understand a wide range of catchment processes, how river catchments respond to different rainfall events, and to identify the impacts of these events.

The Environment Agency has flow gauges upstream of Rogues Hill, at Chafford Bridge and Colliers Land Bridge on the River Medway and at Penshurst and Vexour Bridge on the River Eden. This represents a significant investment in flow monitoring and allows us to understand the water levels on both rivers. Information from these gauging stations was used to calibrate the 2015 Medway flood model and is used to inform the operation of the Leigh FSA.

In addition to the 2015 Medway flood model, the Environment Agency has photographs and data showing the extent of land flooded during previous events, and staff observed the flooding at Rogues Hill in February 2020 to understand the extent of flooding at this location. The timing and extent of the flooding in February 2020 was as predicted by the model, and the model outputs for the peak of the December 2013 flood are consistent with the observed flooding.

The 2015 Medway flood model indicates that in certain circumstances, operation of the FSA can add up to 0.1m to the depth of flood water at The Yews (situated on the downstream side of Rogues Hill).

However, the depth and timing of flooding at Rogues Hill is principally dictated by upstream flows. The following photographs demonstrate this.

The first photograph (Figure 2) was taken in the garden of Colquhouns Cottage (in the High Street, upstream of Rogues Hill) at 14:12 on 20 December 2019. It shows the water level at approximately 29.0 mAOD (metres above Ordnance Datum). Impoundment didn't commence until 15:30 on the same day.



Figure 2: Flooding of the garden of Colquhouns Cottage, 14:12 on 20 December 2019

The next two photographs (Figures 3 and 4) were taken from Rogues Hill on 16 February 2020. Figure 3 shows the fields immediately upstream of Rogues Hill and was taken at 12:51. Figure 4 was taken from the bridge on Rogues Hill over the River Medway and shows Bridge House. It was taken at 13:13. Impoundment didn't commence until 17:15 the same day.



Figure 3: Flooding of the fields immediately upstream of Rogues Hill, 12:51 on 16 February 2020



Figure 4: River Medway and Bridge House, 13:13 on 16 February 2020

The final photograph (Figure 5), below, was taken 14 minutes earlier than Figure 3 (at 12:37 on 16 February 2020). It shows the bridge on Ensfield Road over the River Medway, 3.9km downstream of Penshurst. It is clear that the river was within bank at this location whilst at the same time there was significant flooding in Penshurst

driven by upstream flows. The Leigh FSA was not in operation and all the flooding at this time in Penshurst was driven by flows from upstream.



Figure 5: The bridge on Ensfield Road over the River Medway, 12:37 on 16 February 2020

The Leigh FSA only operates when there are high flows in the river. Therefore the same conditions that drive flooding in Penshurst also determine operation of the FSA.

Whilst the 2015 Medway flood model indicates that in certain circumstances, operation of the FSA can add up to 0.1m to the depth of flood water at The Yews, the flood model also indicates that the proposed change to increase the maximum impoundment level will not further increase the depth of flooding at The Yews.

This is illustrated in Figure 6 below. Figure 6 shows the increase in flooding depth from raising the Leigh FSA maximum impoundment level from 28.05 mAOD to 28.6 mAOD (measured at the main Leigh FSA embankment) during a 1.33% flood event. The map below has been taken from the Flood Risk Assessment for consistency. This map has been updated since the submission of the Application. Whilst it shows greater depth variation lower in the FSA, the point at which the effect of the expansion dissipates remains the same.

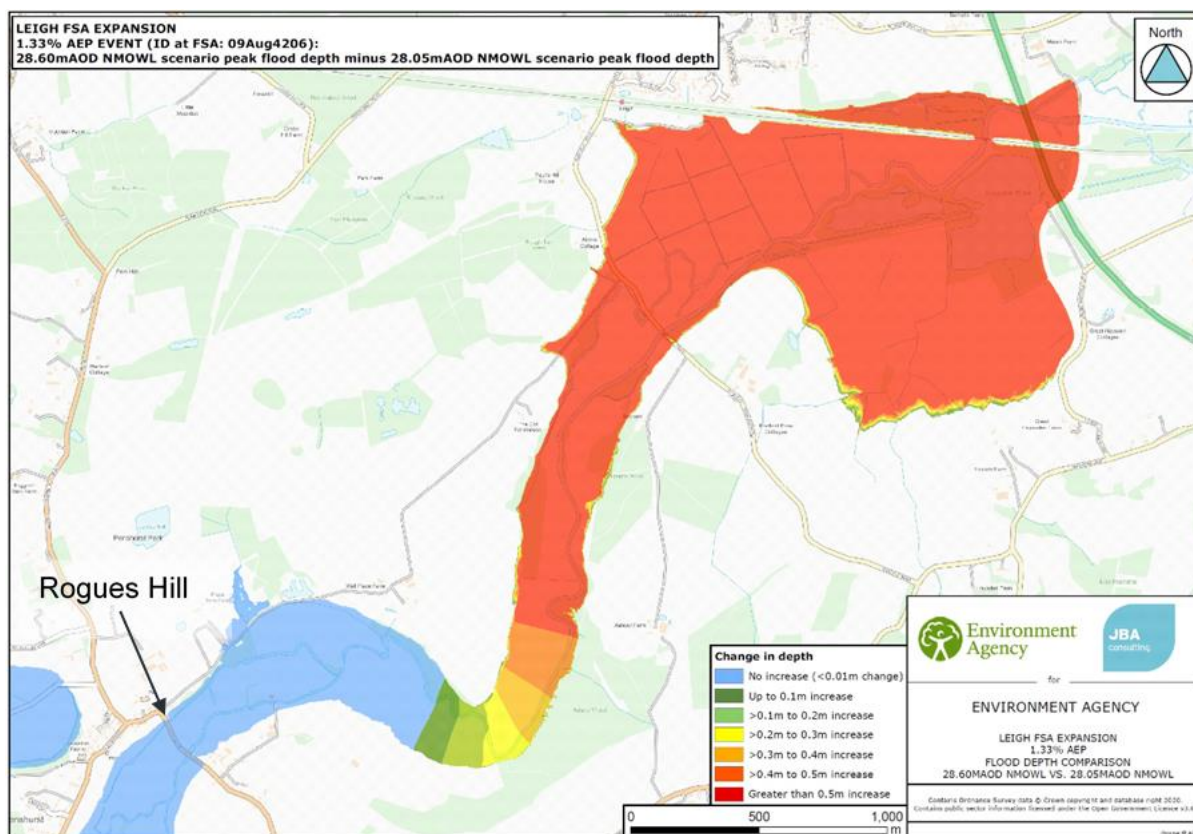


Figure 6: Increase in flood depth in a 1.33% flood event. 28.05m AOD vs 28.6m AOD

The Flood Risk Assessment was submitted with our planning application at the end of August 2020. The planning application reference number is 20/02463/FUL, and it is available for view at the Sevenoaks District Council planning portal:

<https://pa.sevenoaks.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=QFPV1WBK0LO00>

Every flood event is different, depending on a number of factors, including soil saturation and weather patterns. The modelled scenario in Figure 6 was chosen to demonstrate the impact of expanding the FSA because it shows the greatest change in flood depths.

The primary objective of the proposed expansion of the Leigh FSA is to provide improved flood protection to properties in Tonbridge and Hildenborough. The proposed expansion will not reduce the flood risk to Penshurst, however (as explained above) our modelling shows that the expansion will not increase flood risk in Penshurst either.

Our engagement with the community through this scheme has opened a conversation about the wider flooding experienced in Penshurst and the problems this causes. We now recognise the depth of concern in the community about local flooding.

2. Reasons for Objection

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.

Environment Agency response to point 2.1:

The steps we have taken to understand the impact of the FSA as currently operated and the impact of the proposed changes is set out in our response to 1 above.

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.

Environment Agency response to point 2.2:

The ‘limit of land to be acquired’ shown on the Deposited Plans at Appendix J of our Application relates to the acquisition of easements to flood. It is not the maximum extent of land authorised to be flooded by operation of the FSA.

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.

Environment Agency response to point 2.3:

The steps taken to understand the flows of water within the FSA, including at Penshurst, are set out in our response to point 1. We are not aware of any evidence that materially changes the predictions of the 2015 Medway flood model.

In response to the concern within the community in Penshurst that the effect of operation of the FSA on flood levels is not reliably predicted through our modelling, we are looking to provide an additional depth gauge in Penshurst, downstream of Rogues Hill. This will provide definitive data on this issue, and will hopefully provide the reassurance sought by the community.

As explained in section 5 of the Application, the River Medway (Flood Relief) Act 1976 (the 1976 Act) recognises that owners of property upstream of the control structure affected by the operation of the FSA may suffer a loss and so provided the right to be compensated for damage due to that operation. The Environment Agency acknowledges this obligation.

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 The Yews and Bridge House 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.

Environment Agency response to point 3.1:

We share your concerns over the impact of flooding in the village. There are a number of organisations involved in managing and responding to flood risk. The Environment Agency has powers to manage flood risk from main rivers and Kent County Council provide and manage highway drainage and roadside ditches. Other organisations and risk management authorities also have roles in managing and responding to flooding.

The risk of flooding in the natural floodplain cannot be eliminated. Warning and informing presents the only viable approach to the management of the risk to road users.

We have made an offer to Penshurst Parish Council to fund the National Flood Forum to help the local community to set up a flood action group where the concerns of the community can be raised with all of the organisations involved in managing flood risk so that ways to mitigate the impact and improve the resilience of the community to flooding can be explored together. We hope we can rely upon your support with this offer.

We are working with Penshurst Place Estate to address the flood risk to their Concrete Road.

As explained in the response to point 2.3, the Environment Agency acknowledge the obligation to pay compensation where a loss is suffered due to operation of the FSA, and this obligation relates to both the existing arrangement and the proposed changes. Our land agent would be happy to discuss this further with you. However, the Environment Agency does not have to agree compensation before submitting the Revised Scheme to Defra as they are separate discussions that will not prevent the Minister from determining the Revised Scheme.

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.

Environment Agency response to point 3.2:

Whilst the proposed expansion will not exacerbate the present situation, we recognise the risks that arise through flooding of the roads around Penshurst. We always warn the public against driving through flood water. Flooding of these and other roads makes them dangerous, with the potential for drivers to try to pass through the floodwater at Rogues Hill and for cars to become stuck with the obvious risk to life this presents and the ongoing blockage to passage after the floodwaters have receded.

As noted above, we are offering to fund the National Flood Forum to help the local community to set up a flood action group where the concerns of the community can be raised with all of the organisations involved in managing flood risk so that ways to mitigate the impact and improve the resilience of the community to flooding can be explored together.

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 is 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.

Environment Agency response to point 4.1:

The impact of groundwater flooding due to local geology on the storage capacity of the FSA is considered in section 3.4.1 (page 16) of the Flood Risk Assessment submitted with our recent planning application.

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.

Environment Agency response to point 4.2:

Please see our responses to points 1 and 4.1 above.

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.

Environment Agency response to point 5.1:

As explained in the response to point 1, the depth and timing of flooding at Rogues Hill is principally dictated by upstream flows, and those same flows trigger operation of the FSA. The largest flood events at Penshurst are also likely to result in the largest volumes being stored in the FSA. Therefore, whilst it is acknowledged that operation of the FSA can, in certain circumstances, raise the flood water levels by up to 0.1m at Penshurst, this does not mean that operation of the Leigh FSA causes the flooding in Penshurst.

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.

Environment Agency response to point 5.2:

Noted.

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.

Environment Agency response to point 5.3:

Your comment on this is noted.

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.

Environment Agency response to point 5.4:

Your comment on this is also noted.

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.

Environment Agency response to point 5.5:

The Environment Agency remains confident that the 2015 Medway flood model and the results produced by it are sufficiently accurate to understand the flood risk at The Yews.

Those who designed the FSA in the 1970s did not have the benefit of these resources. We now find that the maximum extent of a flood at The Yews may affect more land than is shaded blue on the plan in the 1985 agreement. But that plan does not define the area that can be flooded. Instead it defines the area to be protected from activities that interfere with the flow of flood water.

We recognise that your garden and the outbuildings within it are at risk from flooding, but there is a possibility that property level flood protection measures could be used to protect your stables and cottage that might be affected by a larger flood. We understand from our representatives that you do not wish to explore this option however if you wish to explore this together then we are willing to commission a report from a specialist in property level protection for us to consider together.

Alternatively, whilst the 1976 Act provides the right for those who suffer damage as a result of operation of the Scheme to claim compensation, we are willing to consider an option to fully and finally discharge this obligation.

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.

Environment Agency response to point 6.1:

For the reasons explained in our response to point 1 above, we consider that operation of the FSA currently adds minimal depth and extent to flooding at Penshurst.

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.

Environment Agency response to point 6.2:

Figure 6 in our response to point 1 shows a plan of the additional depth of water during a modelled 1.33% (1 in 75 year) flood event as a result of changing the maximum stored water level from 28.05m AOD to 28.6m AOD.

We chose this scenario to demonstrate the impact of expanding the FSA because it shows the greatest change in flood depths as a result of the proposed change. The depth increase for the majority of the storage area will be greatest for the 1.33% event.

During more extreme flood events, such as a 1% (1 in 100 year) plus climate change event, the increase in depth as a result of the proposed change reduces. This is because the natural flood level, which is greater, dominates.

Please see Section 5.1 (pages 24 to 26) and Appendices A and B of the Flood Risk Assessment for further details. For clarity and to address your concern, figures B1, B2 and B3 in Appendix B of the flood risk assessment show the change in flood depth for the following flood events: 1.33% AEP, 1% AEP and 1%+20% flow AEP.

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?

Environment Agency response to point 6.3:

We acknowledge that the gauge board can be improved for higher flows and we are investigating replacing this.

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 Bridge House, The Yews and Eastern Penshurst.

Environment Agency response to point 6.4:

The flow rate at which impounding begins needs to be flexible to enable optimum use of the storage volume in the FSA. This will vary for every flood event. It is important not store flood water too soon to ensure we have capacity to store the peak and the most damaging flood flows for any given event.

For the majority of floods impounding starts around 75 cubic metres per second. However that is not always the case and it may be necessary to impound water at different flows, both higher and lower, to provide the maximum flood risk reduction in Tonbridge.

Altering the Scheme’s minimum operating flow rate in law would fundamentally diminish the ability to operate the FSA, as designed, to reduce flood risk to downstream communities.

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.

Environment Agency response to point 6.5:

Our proposal to increase the capacity of the FSA will result in flood water being stored to a greater depth, greater extent and longer duration when used. However, for the reasons explained in our response to point 1, the impact of the proposed change ends some distance downstream of Rogues Hill.

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.

Environment Agency response to point 7.1:

We note your comments about Tom Tugendhat MP's involvement.

As explained in Section 5 of the Application, the 1976 Act provides the right for those who suffer damage as a result of operation of the Scheme to claim compensation. If any claim is not agreed then the 1976 Act also provides a mechanism for the compensation claim to be determined by a court.

7.2 The detailed mapping and measuring of our property 'The Yews' 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 The Yews.

Land marked in green on the map indicates part of The Yews 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.

Environment Agency response to point 7.2:

Noted.

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.

Environment Agency response to point 7.3:

In May 2019, the Environment Agency's land agent, Dalcour Maclaren, wrote to 36 landowners and tenants within the existing FSA to advise them of the proposed application to increase the maximum stored water level, and to offer a meeting to explain the impact this would have on them and discuss any concerns they had. These letters were followed up with phone calls and 27 parties took up the offer of a meeting. There are no new landowners and/or occupiers that would be brought into the FSA as a result of the proposed expansion.

Alongside this process, the Environment Agency also contacted all of the organisations named within the Act as Specified Interests (plus additional organisations as directed by Defra) to make them aware of the application to expand the FSA, offer meetings to discuss the proposal and any concerns they had on behalf of their residents or members, and to understand what process they would need to go through in order to consider the proposal. These parties are listed in Section 8.1 of the Application. All of these parties, with the exception of Maidstone Borough Council represent members of upstream communities, to a greater or lesser extent.

The organisations have gone through their own processes to ensure that they understand the impact of the proposal on their residents or members.

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.

Environment Agency response to point 7.4:

We are sorry that you feel we have disregarded the concerns of the Penshurst residents that attended the meeting in 2019. We hope that (i) the additional information supplied in this response, (ii) the proposal to replace the gauge board near Bridge House, (iii) the proposal to install additional depth gauging downstream of Rogues Hill, and (iv) the offer to fund the National Flood Forum to help the local community to set up a flood action group where the concerns of the community can be raised with all of the organisations involved in managing flood risk, addresses these concerns.

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 The Yews. 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.

Environment Agency response to point 8.1:

We are sorry that you feel that we have given insufficient attention to the views of the residents of Penshurst. Whilst we maintain that the proposal to increase the maximum impoundment level from 28.05 mAOD to 28.6 mAOD has no affect at Penshurst, our engagement through this scheme has raised awareness of the concerns of the community over the wider flooding issues in the area.

We have no records of how the sum of £10,000 was agreed to be consideration for the 1985 agreement.

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.

Environment Agency response to point 8.2:

For the reasons set out in our response to point 1 above, we do not agree that the proposal to increase the maximum level to which water can be stored in the FSA will have a significant impact on the livelihood and safety of Penshurst residents and local traffic. Instead, the proposal will have no additional impact, and whilst we acknowledge that in certain circumstances, operation of the FSA can add up to 0.1m to the depth of water at The Yews (and Penshurst), the risks that exist arise primarily from high river flows.

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.

Environment Agency response to point 8.3:

We hope that the additional information provided in this response goes some way to addressing your concerns.