

**RM LR 05 Dr Ackerman and Dr Schuldenfrei's representation in response to the Environment Agency's Application to vary the Scheme within the River Medway (Flood Relief) Act 1976**

**Environment Agency technical response, April 2021**

Further to Dr Ackerman and Dr Schuldenfrei's representation to Defra, the Environment Agency's response is below.

**1. The River Medway (Flood Relief) Act 1976**

*"The current operating procedures, implemented by the EA under the present Scheme, misstate the aims of the River Medway (Flood Relief) Act 1976, to the substantial detriment of downstream communities. The text of the Act states clearly:*

*"[W]hereas during and after periods of heavy rainfall there is extensive flooding of the land adjacent to the river and in particular of the land in the parishes of Tonbridge and Hildenborough in the district of Tonbridge and Malling in the county of Kent (hereinafter in this Act referred to as 'the county') and further downstream:*

***"And whereas the flooding of such land could be substantially alleviated** by controlling the flow of the river and by storing temporarily part of such flow in a flood storage area..." (emphasis added).*

*Yet, the EA's operating procedures wrongly attribute a materially different aim to the Act:*

*"The principals [sic] of operation of the Leigh FSA stated in the Medway Rivers Relief [sic] Act 1976 are:*

- The structure is to be operated to reduce flood risk from the River Medway **to Tonbridge and Hildenborough only.**" (para 6.1, emphasis added)*

*This reinterpretation of the purpose of the FSA, which has seemingly come to be taken for granted by those responsible for its operation, contravenes the principles laid out in the Act, with the consequences borne by communities bordering the River Medway as it flows downstream from Tonbridge – all too often in recent winters."*

Environment Agency response:

These quotations from the 1976 Act have been taken from the second and third recitals to the River Medway (Flood Relief) Act 1976 (the 1976 Act). The second recital is part of the context for the 1976 Act setting out that after heavy rainfall there is flooding of land adjacent to the River Medway including Tonbridge and Hildenborough and further downstream. The third then goes on to say that the flooding of "such land" (i.e. Tonbridge, Hildenborough and "further downstream") could be alleviated by controlling the flow and storing flow.

As recitals, they do not place any obligation upon the Environment Agency and the 1976 Act does not place an obligation to protect the further downstream communities.

Section 17(1) of the 1976 Act states that the Environment Agency “may operate the sluice gates to control the flow of the river downstream of the control structure in such manner and for such periods as they think desirable or necessary...” This confirms the Environment Agency has a discretion in how it operates the Leigh Flood Storage Area (FSA).

The Environment Agency is entitled to operate the Leigh FSA in such manner it considers fit to provide the greatest overall benefit in reducing flood risk to downstream communities.

## **2. Using the FSA for communities downstream of Tonbridge and Hildenborough**

*“A revised Scheme should only be approved insofar as it explicitly requires that the improved structure be used, in accordance with the stated aims of the 1976 Act, to benefit not only or primarily Tonbridge and Hildenborough but also all of the downstream ‘land’ in Kent that is affected acutely by Medway flooding and by the operation of the FSA – including those vulnerable communities like Yalding that are currently not being afforded the critical protection offered by the FSA when Tonbridge and Hildenborough are not specifically at risk.”*

Environment Agency response:

The 1976 Act specifically mentions operating the Leigh FSA to benefit ‘in particular of the land in the parishes of Tonbridge and Hildenborough’. It also mentions areas ‘further downstream’ and this is recognised in Section 6.1 of the Leigh Operating Procedures, where it is stated that the Leigh FSA “*was built in 1982 to reduce the risk of flooding from the River Medway to properties and businesses in Tonbridge and Hildenborough*”. Further, the Operating Procedures note that communities downstream of Tonbridge will benefit from the operation of the Leigh FSA due to a reduction in peak flows in the River Medway.

The Leigh FSA Flood Risk Assessment of August 2020, drafted to accompany the Environment Agency’s planning application, includes maps in Appendix E showing reductions in flood depths downstream of Tonbridge for the 1% (Appendix E1), 0.4% (Appendix E2) and 0.4% plus flows of 25% (Appendix E3) flood events, all of which show, as referenced by paragraphs 5.2.2 and 5.2.3, reductions in flood risk downstream, attributable to the FSA, beyond Tonbridge and Hildenborough as far as Yalding.

However, it must be noted that this benefit decreases proportionately the further you go downstream as other factors, such as flows from other tributaries, become more influential in determining local flood risk.

Successive reviews of operating procedures have highlighted that optimising the benefit of the FSA for Tonbridge requires us to impound at higher inflow rates to be able to reduce risk in high order flood events. Operating at lower flow rates where there is uncertainty in forecasts would risk using up capacity in the FSA too early in a

flood so that there is less capacity available when higher flows come later on. Those higher flows would put Tonbridge and Hildenborough, and downstream communities at increased risk.

Equally if, following impounding, we were to reduce outflows from the FSA solely to reduce risk to communities downstream of Tonbridge, then it will take longer to restore the full capacity of the FSA. If we were to experience further heavy rainfall before the capacity is restored then the protection which the FSA provides, not only to Tonbridge but also to downstream communities, could be compromised.

Due to the influence of the Rivers Beult and Teise, not just the River Medway, we do not currently have the operational tools nor confidence in the forecast models to make decisions about how to operate the FSA to reduce risk in Yalding.