

**RM REP014 Kent Flood Action Group Forum'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 the Kent Flood Action Group Forum's representation to Defra, the Environment Agency's response is below.

Environment Agency response:

We would like to thank the Kent Flood Action Group Forum for your support for our application to increase the stored water level within the Leigh Flood Storage Area (FSA). We would like to provide the following response to your request for the inclusion of a condition that the "operating procedures deliver potential benefits to all communities downstream of the Leigh Flood Storage Area."

**Using the FSA for communities downstream of Tonbridge and Hildenborough**

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.

Whilst the FSA does benefit downstream communities, 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 further reduce risk to communities past Tonbridge and Hildenborough.