

ITEM 11

Somerset Rivers Authority Board Paper

River Brue Modelling

RECOMMENDATION

The Somerset Rivers Authority (SRA) Board is asked to:

1. Note progress and next steps on the River Brue modelling project.

Purpose of the item

To update the Somerset Rivers Authority (SRA) Board on progress with the River Brue modelling project and how this will be used to develop plans to reduce flood risk in the lower reaches of the River Brue catchment.

Background and context

Recent events have further highlighted the degree of flooding within the lowland Brue catchment, with properties, land and highways being at risk. Recent years have seen some of the highest flows on record into the lowland area of the catchment. While there have been previous proposals for works that may reduce this risk, some of these have not been able to proceed due to a lack of information on what the impacts would be, especially in terms of any subsequent increase in risk in other areas.

Development of an SRA-funded intervention to the River Brue has been underway for several years. Initial efforts were invested in development of an improved hydraulic model, allowing for data to be collected to demonstrate the impacts of any changes within the system.

At the September 2024 SRA Board meeting, approval was given to develop the River Brue model further to allow simulation of different scenarios to test which ones provided the optimum flood risk reduction. The scenarios are across the lowland catchment, alongside specific interventions in the lower Brue to increase the capacities of the channels. Alongside the modelling the engineering, environmental and economic impacts of the preferred options are to be analysed to allow a simple Outline Business Case to be developed.

WSP were appointed to undertake the project in January 2025.

Latest status

The modelling work is now almost complete with most draft outputs having been produced. These are currently being reviewed and getting final checks before they can be fully disseminated. This is to ensure that all the parties involved in this project have

confidence in the outputs before they are shared. Some initial outputs have been presented to the steering group (consisting of staff from SRA, Somerset Council, Environment Agency, Internal Drainage Board and Natural England), but the intention is to present a wider set of outputs at the SRA Board meeting in September.

The draft outputs are encouraging in demonstrating options that could allow more water to be evacuated from the system in high flow events, including in the pumped catchments. They generally show greater benefits to the lowland catchment from undertaking work within that area, rather than further up in the catchment, and that certain options, if undertaken on their own, can also lead to detrimental impacts elsewhere.

Next Steps

Based on the initial outputs, there are likely to be a suite of measures that are suggested to be taken forward for further engineering and environmental appraisal consisting of shorter timescale and longer-term options. There will also be the data to support some 'easy win' interventions, which could be undertaken without further appraisal (subject to funding and agreement on the organisation to undertake these works). These are likely to be focused on bank repairs and operational procedures.

For the preferred suite of measures that will be recommended to be taken forward, an assessment of the costs and benefits will be undertaken, which will look at all benefits (or dis-benefits) including flood risk, environmental and social. Sufficient data will be presented to allow a simplified Outline Business Case to be produced. This is a short report that is necessary to apply for funding to be able to implement these options. At present it is not clear what other funding sources may be available to support this other than SRA funding, but this is likely to be based on how much the options help meet other strategic goals, along with the availability of other funding.

The estimated expenditure for this stage of the project is currently forecast to be £70,000 which allows a greater number of combinations of options to be assessed than originally planned, based on feedback from the steering group.

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