

Somerset Rivers Authority Board Paper

Title: Dredging Update

RECOMMENDATION

The SRA Board is asked to: Note

1. Progress with preparations for 2017 Maintenance Dredging.
2. Delays to the Brue Desilt (into 2018) in order to properly understand the impacts of the proposals.
3. Proposals to enhance the Brue Hydraulic Model to facilitate 2 above.
4. The High Level Plan to develop a legally compliant and affordable scheme to dredge the River Parrett between Oath and Burrowbridge.

Purpose of the item:

This paper provides an update to the SRA Board members on progress with

1. Preparation for this year's Maintenance Dredging and further trials of the water injection method
2. Preparation of the Dredging Strategy (Parrett Tone and Brue)
3. Development of the case for further dredging between Oath and Burrowbridge in accordance with the SRA resolution made at the SRA Board meeting on 21st July 2017.

Background and context

There are several dredging initiatives progressing in parallel under the 20 year flood action plan work stream W1. These aim to deliver immediate restoration of channel conveyance where necessary and possible, investigate the most effective new sites where dredging can increase conveyance and reduce flood risk, and recommend the most efficient and sustainable ways of dredging and maintaining dredged channels in future.

So far the focus has been on maintaining the 8.75km length of the Parrett and Tone which has already been restored to an agreed conveyance capacity by dredging. Different methods have been trialled with the expressed intention of maintaining the restored conveyance whilst reducing cost and direct environmental impacts.

This work is also informing the developing dredging strategy.

At its meeting on the July 21st the SRA Board committed to “dredging the River Parrett between Oath and Burrowbridge as soon a legally compliant and affordable scheme can be found.” Officers have been developing a high level programme to identify the key tasks, milestones and timescales so that a realistic proposal can be presented to the Board by next summer, with delivery currently planned for autumn 2018.

Early proposals to desilt the River Brue from Westhay to North Drain outlet are developing to a slower programme in recognition of the need to properly understand the impacts of this work and to identify additional opportunities to manage flood risk across the wider catchment. (This will be the subject of a future paper)

Latest status

Preparation for this year’s Maintenance Dredging and further trials of the water injection method

Building upon the success of last year’s trials, the positive findings and support for the scientific monitoring undertaken, and in response to the amounts of re deposited sediment detected from monitoring surveys, a larger scale Water Injection Dredge is proposed this year.

The work is on-track to be carried out in the first week of December 2017.

As a continuation of last year’s trials, this year’s work will also inform future decisions about how best to maintain this length of channel in future and will feed into the development of the dredging strategy.

We have received a favourable contract proposal within the available budget and the contractor remains flexible and co-operative to work within our constraints.

Preparation of the Dredging Strategy (Parrett Tone and Brue)

Parrett and Tone

The developing dredging strategy will elaborate the findings and recommended actions from the HR Wallingford Strategy Report.

The findings of our investigations and the outcomes from maintenance dredging trials on the Rivers Parrett and Tone will be reported in detail next year, after this year’s maintenance trials are completed and after further seasonal monitoring has been undertaken next spring.

The final report will be informed by the outcomes of the Strategic Approach to Mitigation being delivered by Natural England for the SRA.

Brue

It was noted at the Board meeting of 21st July 2017 that improvements to the Brue hydraulic model will be necessary to properly evaluate the impact of the proposed Brue desilting and other work in the catchment.

The model has been reviewed and we have recommendations of how to make the model more suitable for this purpose. These include incorporating additional topographic survey information, improved calibration, and gathering more level and flow data from new gauging sites.

The cost of these enhancements to the model is being determined and consultation with the EA modelling team will be undertaken before proceeding beyond that point.

As a consequence it is unlikely that desilting of the originally intended length of the River Brue, from Westhay to North Drain will proceed this year. However it should be noted that the IDB are planning to commence tree management to improve flood conveyance on the River Brue in January.

Development of the case for further dredging between Oath and Burrowbridge in accordance with the SRA resolution made at the SRA Board meeting on 21st July 2017.

Officers have been working to develop a High Level Plan for this further dredging so as to enable delivery resources to be lined up and to give confidence that this scheme is deliverable. This programme currently indicates an earliest start for this dredging of October 2018 if environmental constraints can be managed effectively. However delivery to this timescale will be a major challenge for the delivery partners and additional technical resources will need to be provided for the duration.

Recommendation:

The Board Note

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