



an independent force for a better Bristol

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## **The Society's response to the Bristol Avon Flood Strategy consultation**

### **Summary**

This consultation is about the strategic approach to addressing the joint risk of tidal surges and river overflow. The fundamental strategic choice seems a fait accompli, on the basis of technical advice, with no possibility that consultation responses will change it. The consultation might have made this clearer. As a result, it is a given that there will be high raised flood defences along the city's waterways. We support the proposed incremental approach to such defences.

At this stage of development, the details of the incremental approach are lacking, so it is difficult to make substantive comments. We look forward to seeing more detail. For instance, the proposed creative ways of designing raised defences are very welcome, but it is not really possible to comment on them until we see proposals on specific sites. An important aspect is possible impacts on specific views, and we think it would be helpful to show some key views.

### **The strategic and tactical approach**

**We note the choice of strategic approach.** Whilst consultation responses cannot change the choice of strategic approach:

- we note the support from some for a River Avon Barrier, possibly creating a new traffic crossing. But we also note the risky nature and high cost of such an ambitious engineering project.
- we note that the proposed works at Entrance Lock will also be a complex engineering project, with some risk from engineering uncertainties. One of our members, a retired civil engineer, thinks that the complexity of this, and therefore the cost, could be significantly underestimated. He will be writing separately.

**The strategy should be flexible as things change over coming years.** Whilst on the face of it a firm and final decision on strategic options has been made, we think it is right to leave open the possibility for further review as new knowledge and thinking evolves over the years. In view of future uncertainty - Bristol's growth, city centre changes, climate change - we feel this study should clarify which options are ruled out forever (if any), and which options may be reconsidered if circumstances change. If an option is not to be ruled out forever, then the study should consider what protections are needed to ensure that that option remains open.

**We support the strategic approach of adapting the flood defences gradually over time,** and seeking to integrate the defences with the existing fabric. This is on the understanding,

as per the technical advice, that downstream flood barriers and upstream natural techniques are not sufficient to address the joint risk of tidal surges and river overflow.

**We support the proposed tactical approach to delivery:**

- taking opportunities to improve the defences as developments arise at the riverside locations identified in need of defences
- looking to incorporate greening, public realm improvements, walking, cycling and recreational infrastructure into the defences - we strongly support this. We note Appendix D showing indicative designs of place-making opportunities.
- designing the defences to be futureproof - capable of being added to later as flood risk increases
- unlocking potential for growth & regeneration by creating certainty that flood defences will be delivered, eg at Western Harbour, Bristol Temple Quarter, and St Philip's Marsh.

**We support the suggested ways of designing defences, eg**

- set back from river
- terracing
- glazing

**We note the "initially suggested" priority order of interventions**, shown in Figure 34 on page 63 of the draft Strategic Outline Case. From the presentation we attended, we understand the approach to be as follows:

- protect upstream and downstream locations that might be affected by city centre interventions, eg PIII, Sea Mills, Keynsham, Bitton
- flood gates at Western Harbour and Netham
- city centre locations incrementally as developers come forward - NOT prioritising according to vulnerability. Non-developer-related locations, to be funded by the Council and the Environment Agency, are also not prioritised, except that work will be ordered so that each improvement does not adversely impact on other areas. The Cut both sides will presumably have to be flood-protected of a piece since it does not have any developer frontage.

This incremental implementation of the strategic approach should also adapt to Bristol's evolving transport and place-making policy for the city centre.

Our comments

We have the following detailed comments:

1) An important aspect is possible impacts on specific views, and we think it would be helpful to show some key views. It should be fairly simple to model this using the new Vu-City software, to which we believe the Council now has access.

Examples of key views are:

- new higher flood gates at the Entrance Lock, raised defences at the Knuckle and new defensive walls from there around Brunel's Lock and into the New Cut would have a significant impact on the view towards the Suspension Bridge.
- the raised defences along the Cut will remove views of the Cut from either side, except for those walking or cycling along the edge of the Cut, and from bridges across the Cut.

2) Whilst we support the strategy, the detailed design at each location will be important, and we will wish to comment on designs as they emerge

3) The strategy rightly focuses on the design of flood barriers to incorporate place and movement improvements. It is also important to ensure the design quality of these barriers, as they will be an important part of the city landscape - for example in the materials used.

4) Shared use of routes by walkers and cyclists is contentious. The design of defences must take this into account.

5) The improved walkways/cycle ways need to be joined up - not just where the flood defences are needed.

6) When raised defences are considered, it may be appropriate to incorporate bridge improvements, eg possible new bridges linking Clarence Road to the segregated cycle path on Whitehouse Street, and a new bridge across the New Cut to take pressure off of Gaol Ferry Bridge.

7) At this stage of planning, the order and timescale of the proposed improvements remains vague, and we look forward to seeing firmer plans as they emerge.