

File Note

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Project title **Bristol Avon Flood Strategy**

Job number

260498

cc

File reference

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Date

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Subject **Appendix H – Assessment to prioritise the order of construction**

Background and purpose

Bristol City Council (BCC) and the Environment Agency (EA) are working together to deliver a long-term plan to better protect homes, businesses and infrastructure from flooding from the River Avon; the Bristol Avon Flood Strategy. This note sets out an assessment to group flood defence measures forming the first phase of the Strategy into build stages, prioritising those elements with least constraints and avoiding an adverse flood risk impact on others.

Rationale

Phase 1 works are significant in scale. There are some relatively straightforward elements within Bristol City Council's control and whose implementation will not need works to prevent adverse impacts (such as installing new flood gates at Entrance Lock and Netham Lock). There are many interfaces/dependencies and uncertainties, particularly for areas of growth and regeneration.

The variable nature of the works (ranging from extensive public realm and highway interfaces within the city centre through to specialist mechanical flood gate installation) and long extent of construction lends itself to delivery through several procurement exercises.

To increase delivery confidence, it is proposed that phase 1 is split into separate packages at Outline Business Case stage and beyond to construction. By splitting Phase 1 delivery, the Council can reduce the complexity, risk and dependencies whilst maximising the opportunity to accommodate flexibility to incorporate elements of defences into any new development. This approach builds on the lessons and advice from other Risk Management Authorities including the Environment Agency and the East Solent Coastal Partnership.

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Methodology

The works to be included in each phase is dependent on a range of factors which have been considered in the below table.

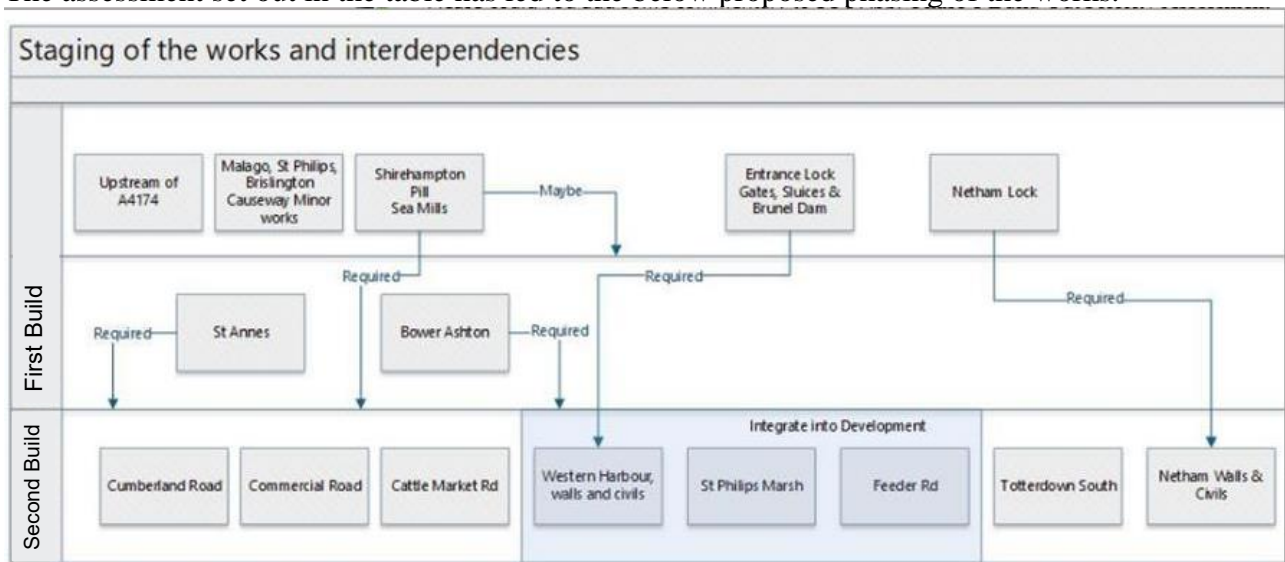
- **Reliance on input by others** – works that do not require other schemes or strategies to take place can be implemented sooner.
- **Abortive work and construction inefficiency** – works that are at a reduced likelihood of needing to be replaced (for instance, if development is proposed) can be implemented sooner.
- **Impair development opportunities** – works that, if completed, will help to unlock areas of growth and regeneration, should be completed sooner. Equally, those that if built may impair development should be put back until issues are resolved.
- **Causes detriment** – works that will cause detriment to other areas should not be completed until the mitigation works are constructed.

Findings

The findings are set out in a table appended to this note.

Conclusion

The assessment set out in the table has led to the below proposed phasing of the works.



29/07/2020

Assessment to prioritise the order for the construction

Job Title: BCCFCERM

Job Number: 260498-00

By: HJR

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Factors (0 high risk of impact, 10 low risk of impact)

Reach	Reliant on input by others	Abortive work	Construction inefficiency	Impair development opportunities	Causes detriment	Priority for design and construction
Western Harbour – gates, sluices and dams R1, sections 1-5, 1-9, 1-22,	10	10	10	10	10	High
St. Anne's North Bank R15	10	10	10	10	10	High
St. Anne's South Bank R16	10	10	10	10	10	High
City Centre Detriment (Tributaries)	5	10	7	5	10	High
Downstream Detriment (Seamills, Pill & Shirehampton)	8	8	7	5	10	High
Upstream of A4174 Detriment	5	5	7	5	10	High
Netham Lock (flood walls and civils)	7	5	5	5	3	Medium
Bower Ashton R10	10	10	10	10	5	Medium
Western Harbour – flood walls & civils (R1 minus above)	3	3	3	0	0	Low
Cumberland Rd (R3)	10	10	10	9	0	Low
Commercial Road / Bathurst Dam (R4)	10	10	10	9	0	Low
Clarence Road	10	10	10	9	0	Low
Cattle Market Road	10	10	10	10	0	Low
St Philips Marsh	0	0	0	0	0	Low
Netham Lock (R8-7)	10	10	10	8	0	Low
Totterdown South R13	10	10	10	8	0	Low
Feeder Rd R14	7	5	5	2	5	Low