



Decision Pathway – Report

PURPOSE: Key decision

MEETING: Cabinet

DATE: 06 February 2024

| | | |
|---|--|--|
| TITLE | Critical Assets Harbour River Wall Asset - Remedial Works | |
| Ward(s) | Various affected: Central, Hotwells & Harbourside, Bedminster, Southville and Lawrence Hill | |
| Author: Shaun Taylor | Job title: Head of Highways | |
| Cabinet lead: Councillor Donald Alexander, Cabinet Member for Transport | Executive Director lead: John Smith, Interim Executive Director Growth and Regeneration | |
| Proposal origin: BCC Staff | | |
| Decision maker: Cabinet Member Decision forum: Cabinet | | |
| Purpose of Report: This paper sets out the project progress made since the Bristol City Council (BCC) approval of the Strategic Partner (SP) Condition report, and the subsequent adoption of the Early Contractor Involvement (ECI) and Design and Build (D&B) procurement routes, using existing approved BCC framework Contractor, Alun Griffiths Contractors, (AGCL). This paper also sets out the immediate recommendation and the additional “ask” for further Capital forecasted requirement funding of £11.90m (now also including the re-introduction of £1.0m for the works to the Underfall Sluice footbridge), within the next five years to facilitate the full delivery of the identified mitigations and remedial works required to reduce the overall critical risks to the Transport Network to the overall recommendations as contained within the (SP) Condition Report findings. | | |
| Evidence Base: Refer to Appendices as follows: Appendix Ai copy of the Strategic Partner (SP) Critical Harbour Asset Report Appendix Aii for BCC review of that (SP) Report and various Location Plans. Appendix Aiii for additional supplementary detailed site information to support overall narrative within main Report. Appendix Aiv Spreadsheet of detailed breakdown of individual sites costs with priority ratings. | | |
| <u>1.0 Executive Summary of Findings from previous cabinet papers</u> Bristol’s Floating Harbour is an integral, and historic, part of the city, neighbouring homes and supports a range of businesses and livelihoods, as well as diverse wildlife. It is an important part of Bristol’s tourism offer too. The New Cut river walls support Coronation Road and Cumberland Road, which are both major strategic highway routes. The Floating Harbour and river asset condition survey undertaken in 2019/20 identified 194 retaining river wall | | |

assets within the Floating Harbour and New Cut waterways.

There are 11 Harbour retaining river wall assets identified as where a structural failure of could result in potential loss of life or serious injury, major flooding, adjacent property damage and immediate closure of the strategic Highway Network. This could mean impacts on traffic, environment, the wider local economy as well as financial and reputational damage to the Authority. Refer to Appendix A for further details.

2.0 Ongoing deterioration of the New Cut River Walls and potential additional structural issues and failures

The “New Cut” was constructed between 1804 and 1809 using materials and methods available, mainly masonry and hydraulic lime mortar. These assets have endured and performed remarkably well considering the lack of preventative maintenance undertaken over many decades. It is however now apparent that the masonry facing River Walls are deteriorating very rapidly, with three new river breaches in recent years to the south bank, just East of Vauxhall Footbridge being noted since the (SP) Condition Report in June 2023.

There are some sections not faced by masonry and are exposed rock face. In general, this river facing wall rock face is approximately 15m – 20m in height, and comprises of relatively robust sandstone layers, overlying softer sedimentary mudstone layers, subject to ongoing and cyclical tidal river erosion and scour, which is undermining. This is causing ongoing further slips and deterioration and requires urgent and timely intervention.

The rock faces to the west of Gaol Ferry Footbridge were not originally included in the (SP) Report, or part of the original structures inventory, so as part of the current investigation works, our contractors (AGCL), have been additionally commissioned to carry out a full-length de-vegetation and provide further estimate costs for a new photogrammetry/hands-on condition survey and further investigation/assessment to determine overall condition.

3.0 Strategic Partner (SP) Condition Report – BCC Client Appraisal

The draft Critical Asset Overview Report received from (SP) in January 2023, has now been reviewed by BCC Structures Team (refer to Appendix A for report details and for location plans), and the finalised (SP) report was accepted in June 2023.

Building from this report, our approach is to intervene with timely suitable proportional stabilisation measures.

Further strategic “Risk Profiling” has been undertaken based primarily on the (SP) report, and our own expertise and lessons learnt from events such as the failure of the Cumberland Road River wall in January 2020 that timely prior interventions would have prevented the ultimate failure (as consultant investigations were still ongoing, prior to the 2020 failure). There can now be a controlled “Risk Based” acceleration of the works programme with the removal of critical risks by structural stabilisation routes, rather than to continue to monitor/investigate as recommended in the (SP) report, thereby removing each targeted critical structural risk as deemed appropriate, in good time. This will enable an appropriate proportional reduction of immediate failure risks, rather than prolonged further ongoing investigations and monitoring.

The identified structural “Facing river walls” have an overall “durability core” function in protecting the existing river banks and sedimentary rock planes/faces from river erosion, so their ultimate structural repair is now also critically necessary, and this structural function can be readily reinstated (with approved additional Capital Funding), without the need for further ongoing investigations or geotechnical testing and would be suitable for (BCC-BST) to readily procure the required works on these critical structural facing walls by using our existing Core Bridges framework contracts and by using alternative procurement routes such as the Design and Build Contracts (D&B), where the Principal Contractor (AGCL), can design and construct and will also take on and share some of the inherent constructional risk here, utilising (D&B) contracts.

Using the existing Core Bridges Framework Contracts and considering design and build options is now the preferred delivery route and (BCC-BST) are recommending this route is taken, as this will allow the authority, having now just critically risk reprofiled (using D&B routes) 8 of the 11 critical structures, the authority will then be left with three remaining high-priority river wall structures as below. Further details of these river walls are

contained in Appendix A.

1. NCN28 Langton Street Bridge/Banana Bridge River Retaining Wall – Retains York Road
2. NCN16 The Gateway/Slipway (Adjacent to Gaol Ferry Entrance Gate) – Retains Cumberland Road
3. NCN21/23 Bedminster Bridge wingwall (Adjacent to Bedminster Old Bridge) – Retains Coronation Road

4.0 Summary of the Workstreams & Investigation/Design Work Costs (from the £2.50m Approved Capital Budget)

See below the new revised estimated costs to undertake the necessary ongoing stabilisation works that were previously agreed to be executed utilising the Cabinet approved £2.50m funding stream and involves a mixture of further investigation, monitoring and actual stabilisation works. For further details on this, refer to Appendix Ai, ii, iii and iv as part of this report.

| | |
|---|---------------|
| NCN28 Langton Street Bridge/Banana Bridge River Retaining Wall | £435k |
| NCN16 The Gateway/Slipway – Adjacent to Cumberland Road | £514k |
| NCN21/23 Bedminster Bridge wingwall – Adjacent to Coronation Road | £150k |
| NCN-11 Gaol Ferry Rock Faces – Ecology/clearance/Survey and report (No design/GI) | £150k |
| New Cut LIDAR survey/Data management | £30k |
| Ecological Survey (Stage 1 | £20k |
| General De-vegetation (For LIDAR/Survey work | £20k |
| BCC internal staff costs @ 15% | £200k |
| Initial Strategic Partner Report (Out-turn cost, including BCC staff costs | £160k |
| Site welfare/accommodation (Preliminaries | £45k |
| Diving surveys (Grain Barge and Feeder Canal) | £30k |
| Current total estimated/committed | £1.75m |

5.0 Project Progress on Scoping the Preliminary D&B Design and Investigatory Works (3 High Priority Assets)

Langton Street Bridge/Banana Bridge River Retaining Wall and NCN16 The Gateway/Slipway have been identified as two of three high priority assets to focus on. For further detailed progress information on these specific high priority sites, along with other secondary project workstreams programme and progress information, refer to Appendix Aiii.

The mobilising of a Principal Contractor (AGCL) and Principal Designer (D&B) requires accurate investigatory scoping of the works, the availability and lead-times for the Contractor, the nominated Consultants and the specialist Sub-Contractors, and the gaining of the required ecological licences and associated Environment Agency (EA) permissions.

To expedite the third high priority asset, Bedminster Bridge, works (and the required minor design input) we will progress with construction and to mobilisation no site in early 2024.

6.0 Options considered for BCC to mitigate risk to the Strategic Transport Network

Option 1 – Do Nothing

Due to Bristol City Council’s overarching statutory duty as the Highway Authority this is therefore not considered to be a viable option and is therefore discounted.

Option 2 – Do basic minimum - Immediate Term – (2023 into 2033) Over 10 financial Years

Setting up a “Cyclic Monitoring Regime” of regular programmed 6 monthly inspections, and the surveying of all identified New Cut River walls, using normal surveying techniques, Visual Inspection where possible, new 3D drone photogrammetry survey and also new LIDAR surveys and modelling regimes.

The regime would monitor movement trends or structural events caused by the tidal watercourse. A six-monthly

cycle basis does mean that any event (unless reported via a separate source) might not be identified until the subsequent inspection. Such an approach will require a fully managed dynamic “Live Risk Register” with the appropriate “Mitigation Action Plan” compiled, approved and financed.

This risk management strategy for the New Cut river walls would operate as an “Early Warning System” by identifying new risks as they arise, allowing for a safe, effective, and cost-efficient mitigation Strategies to be then formulated. This approach will therefore allow BCC to discharge its statutory highways duties and minimise the ongoing risk of loss of life, injury, flooding, damage to property and all other impacts. This option would require an ongoing level of additional capital funding commitment “reserve stabilisation Pot” of circa £1.0m per annum to facilitate an immediate “rapid response plan” scenario for immediate mitigations and/or safety measures in the event of an unforeseen failure event(s) and would also require an additional annual ongoing monitoring Budget along in the scale of £70k-80K per annum.

This approach is not considered to be a viable option as a stand-alone measure, without further capital investment for these “now known” high priority sites.

Option 3 – Short term option – (2023 through to 2028), Over 5 Financial years

This option would be to deal with the “known” identified high-profile High Risk Priority sites:

- | | |
|---|----------|
| 1. Langton Street Bridge\Banana Bridge River Retaining wall | NCN28 |
| 2. Gaol Ferry Gateway\Slipway Retaining Wall | NCN16 |
| 3. Bedminster Old Bridge S\W Wing Wall | NCN21\23 |
| 4. Gaol Ferry Rock Faces (Additional high-priority asset) | NCN11 |

There is existing Capital funding already committed to the three high priority sites as identified in the (SP) Critical Asset Overview report. A fourth high priority has also since been identified after the report, which will be covered as part of the approved capital funding of £2.50m to undertake the required targeted investigations and design works.

The project is forecasting an intended capital commitment (as part of the approved £2.50m), of approximately £2.0m for the further ongoing investigations, design, and monitoring for these four sites.

At this juncture of the project, it is now forecasted that the final stabilisation measures required for the assets (1 – 3) will cost approx. £9.0m, plus a provisional sum of £1.80m has been allowed to cover any works required to the river wall rock faces over the next five years. This creates a projected forecasted project capital total of £10.80m.

Option 4 – Medium Term Option – (2023 to 2028), Over 5 Financial years and further (recommended Option)

This option includes the short-term option 3 (as described above) and would also include priority river facing wall sites: Bristol Metal Spraying (NCS-06), Camden Road (NCS-13), and Gaol Ferry Ramp (NCS18), which are all categorised Priority 2 risks, along with Feeder Road Jetty (S28b) categorised Priority 3 risk.

There is already existing capital funding committed to the further investigation, ecological assessment, site clearance, and design of the above high priority facing wall sites as part of the original approved £2.50m project scope, with an additional estimated cost of circa £100k for the actual investigation and other works.

With the recommended inclusion option 3 at circa £10.80m, this brings the full combined estimated cost of this option to £10.90m.

Long term Ongoing Capital Commitment – (2028 – 2038), Over 10 Financial years

This would be the main overall long-term objective of the River Asset project following the mitigation of the four main structures (option 3 or 4) to 2028, it would also be prudent to set aside up to £1.0 million per financial year beyond that point to completion of the full project to 2038 (and possibly further), to deal with the major existing Health and Safety risk to the network.

This long-term option would be considered prudent as there will always be ongoing deterioration of these river walls and appropriate intervention on a yearly basis will allow the authority to control and monitor the ongoing deterioration of this whole network of again river walls and look at further additional capital funding streams, should that be further considered to be required.

Refer to the breakdown of site costs in Appendix A iv, which include a breakdown of these sites, risk priority and estimated costs for further information to evidence the narrative of this report. Further details of the current expenditure and forecasted spend of the approved capital of 2.50 million, are contained further along in this report.

7.0 Underfall Sluice Bridge

The Underfall Sluice Bridge will be re-introduced back into the scope of this project, as BCC have been granted a £1.80m grant from the Environment Agency (EA) to undertake flood defence mitigation works to encompass this structure. These works are due to commence in 2024, therefore the structural works to the Underfall Bridge will need to be rescoped back in and included within the forecasted costs, with an anticipated cost of £1.0m (including the full assessment, design, and construction).

8.0 Overall Forecast Project Programme Finances

Final summary of additional Capital Budget now required to complete full programme of New Cut river wall works

| Project | Costs |
|------------------------------------|----------------|
| Option 4 (Per description above) | £10.90m |
| Underfall Sluice footbridge bridge | £1.00m |
| Total Estimated Costs | £11.90m |

Cabinet Member / Officer Recommendations:

That Cabinet:

1. Note an update on the project progress to date, remaining programmes, current immediate works and further findings.
2. Authorises the Executive Director for Growth and Regeneration, in consultation with the Cabinet Member for Transport to take all steps required to proceed with the works in relation to the High-Risk priority sites and additional priority river facing wall sites as outlined in recommended options 3 and 4 in this report including procuring and awarding contracts over the key decision threshold.
3. Authorises the Executive Director for Growth and Regeneration, in consultation with the Cabinet Member for Transport and Cabinet Member for City Economy, Finance and Performance to approve in principle the revised capital funding required for the project noting that priority funding of up to £6.10m be considered for inclusion in the Council’s Capital Programme for 2024-25 , the remainder known to be required as a priority in 2025-26 and beyond will be subject to approval as part of the Council’s capital process.

Corporate Strategy alignment:

Both the floating Harbour and the New Cut support the Adopted Highway in all the 194 locations identified, BCC, as the Local Highways Authority, has a statutory duty to maintain and keep in use and open for the public. The overall Corporate Strategy alignment of this project would be fulfilment of some of the corporate strategic themes with regard to Wellbeing, well connected and business as usual.

City Benefits:

Stabilisation of all these critical identified highway New Cut River wall structures will ensure the overall safety of these strategic assets, meeting the Council’s overall statutory duty, obligations. It would also address the concerns of Corporate Council Insurers, in regard to providing related corporate insurance cover for the operational aspect of the City Docks.

It will reduce the risk of asset failure, which could affect the operation of the surrounding highway network, including Metrobus. It will reduce risk of any potential financial claims from owners of vessels in the Floating Harbour, who require constant notifiable maritime access in accordance with the legalisation. It will reduce risk

of increased repair costs and operational costs due to any additional mitigation measures, should there be significant delay in undertaking the urgent asset stabilisation work. Significant investment in stabilising these identified failing assets will produce overall future operational savings and performance reliability.

Consultation Details:

The Cabinet Member for Transport, Executive Director and the Mayor’s Office will be briefed on the proposed ongoing developing costs to this Capital project.
 Individual ward councillors will in time be briefed once these works get to site as a project and have an impact on the public.
 The Harbourmaster will be consulted and involved in the scheme developments.
 The Environment Agency (EA) will require details of the proposed activities, as the proposed works are next to a main watercourse and will require the appropriate consents from the EA.
 The Marine and Maritime Organisation (MMO) will be consulted on this project as they license, regulate and plan marine activities in the seas around England to ensure that this project proposal is carried out in a sustainable way.
 Local neighbouring Interest groups such as FRANC, will be kept informed of project and planned works before they get to site.

Background Documents:

[Corporate Strategy 2022-27 \(bristol.gov.uk\)](http://bristol.gov.uk/corporate-strategy-2022-27)

| Revenue Cost | N/A | Source of Revenue Funding | N/A |
|---|---|--|---|
| Capital Cost New Cut River Wall Asset Stabilisation and investigations and also Underfall Sluice Footbridge Strengthening Works | £11.90 million of the approved Capital Programme. Full Breakdown of Capital Funding required contained in Main Body of Report and Appendices. <ul style="list-style-type: none"> • FY24/25 Total = £3.10m (£3m of Banana Bridge Wall + £0.1m Minor Masonry) • FY25/26 Total = £4.00m (£2m of Banana Bridge Wall + £1m Gaol Ferry/Gateway Wall + 1m Underfall sluice footbridge.) • FY26/27 Total = £3.0m (£2m Balance of Gaol Ferry/Gateway Wall + £1m works on the Gaol Ferry Rock Faces) • FY27/28 Total = £1.80m (1.8m on the goal ferry rock faces) | Source of Capital Funding | Capital Funding to be sought through several routes such as CRSTS 2 Funds routes and also from EDF sources. |
| One off cost <input checked="" type="checkbox"/> Ongoing cost <input type="checkbox"/> | | Saving Proposal <input type="checkbox"/> Income generation proposal <input type="checkbox"/> | |

Required information to be completed by Financial/Legal/ICT/ HR partners:

1. Finance Advice:

This report seeks approval to repair four high risk sites in the New Cut River Walls which support Coronation and Cumberland roads along with several priority sites. Cabinet previously approved £2.50 million to deliver a series of stabilisation works and repairing these priority sites is forecast to cost £11.90 million. Separately, the Environment

Agency is planning to improve flood defences around the Underfall Sluice Bridge, and it is recommended the Council invest a further £1.0 million to improve the bridge as part of those works.

Given recent failures in river walls the investment is clearly of a high level of importance but capital funding in the Council is limited. The Growth and Regeneration Directorate is considering what funding could be switched from other programmes to allow this work to take place. That includes the contingency funding set aside for the Bristol Beacon, Western Harbour and available Community Infrastructure Funding (CIL), all of which are subject also to wider corporate priorities as set out in the Councils Budget policy framework. Priority funding of up to £6.10m will be considered for inclusion in the Council's Capital Programme for 2024-25, the remainder then to be considered as a priority in 2025-26 and subsequent years subject to approval as part of the Council's Budget Framework. However, in some cases we will need to return to the providers of grants and central government to approve our plans.

Finance Business Partner: Richard Young, Head of Strategic Finance (G&R) 26 January 2024

2. Legal Advice:

The procurement process must be conducted in line with the 2015 Procurement Regulations and the Councils own procurement rules. Legal services will advise and assist officers with regard to the conduct of the procurement process and the resulting contractual arrangements.

Legal Team Leader: Husinara Jones, Team Manager/Solicitor 19 January 2024

3. Implications on IT:

IT are supportive and available to aid in progressing relevant work and can be engaged through the existing work request process

IT Team Leader: Alex Simpson – Lead Enterprise Architect 28 November 2023

4. HR Advice: There are no HR implications evident.

HR Partner: Celia Williams, HR Business Partner 12 December 2023

| | | |
|--|---|------------------|
| EDM Sign-off | John Smith, Interim Executive Director Growth and Regeneration | 29 November 2023 |
| Cabinet Member sign-off | Cllr Donald Alexander, Cabinet Member for Transport. | 7 December 2023 |
| | Cllr Craig Cheney, Cabinet Member for City Economy, Finance and Performance | 11 December 2023 |
| For Key Decisions - Mayor's Office sign-off | Mayor's Office | 8 January 2024 |

| | |
|---|------------|
| Appendix A – Further essential background / detail on the proposal Ai - Strategic Partners (SP) Harbour/New Cut Asset Priority Condition Report Aii - BCC-BST Review of the Strategic Partners (SP) Harbour/New Cut Asset Priority Condition Report and also Site Location Plans. Aiii - Supplementary detailed information to support overall narrative contained within Report. Aiv – Spreadsheet Table and Breakdown of separate River Wall Site costs. | YES |
| Appendix B – Details of consultation carried out - internal and external | NO |
| Appendix C – Summary of any engagement with scrutiny | NO |
| Appendix D – Risk assessment | NO |
| Appendix E – Equalities screening / impact assessment of proposal | YES |
| Appendix F – Eco-impact screening/ impact assessment of proposal | YES |
| Appendix G – Financial Advice | NO |

| | |
|--|-----------|
| | |
| Appendix H – Legal Advice | NO |
| Appendix I – Exempt Information | NO |
| Appendix J – HR advice | NO |
| Appendix K – ICT | NO |
| Appendix L – Procurement | NO |