



To: Executive Councillor for Public Places:
Councillor Andrea Reiner

Report by: Head of Streets & Open Spaces: Toni Ainley

Relevant scrutiny committee: Environment Scrutiny

Wards affected: Abbey, East Chesterton

Non Key Decision

1. Executive summary

Cambridge City Council is the riparian owner of the riverbank along Stourbridge Common. A structural survey of the existing riverbank has revealed significant stretches that are in need of repair.

Consideration has been given to the methods of repair and the preferred approach for a replacement design would be the use of soft engineering principles (such as bank stabilisation using natural materials and aquatic marginal plants) Once established these will provide a long term sustainable solution, requiring no or low maintenance, reducing costs and significantly enhancing the river aesthetic and biodiversity of this recently designated Local Nature Reserve.

This approach would be supported by the Environment Agency as it would meet national targets to re-naturalise rivers under the Water Framework Directive.

The Drainage Engineer and Nature Conservation Officer will provide the technical input for a tender specification for the contract to be let as a design and build by specialist firms. This report provides evidence to support this approach and allows the Executive Councillor to make a decision based on the information supplied.

2. Recommendations

The Executive Councillor is recommended:

To approve the tendering and letting of a contract for a design and build of a river bank restoration programme at Stourbridge Common.

To approve the spending of £100k in year 2013/14

To approve the preparation of future capital bids for future works along the Stourbridge Common river bank

3. Background

Cambridge City Council is the riparian owners of 860m of riverbank on Stourbridge Common Local Nature Reserve (LNR), situated on the southern bank of the main River Cam in north east Cambridge. The site is Common land (subject to the Commons Act 2006), a designated LNR and a non-statutory County Wildlife Site. In addition the entire length of the River Cam is designated as a County Wildlife Site as it passes through the City.

The existing concrete riverbank is reaching the end of its lifespan along several sections and a structural survey was undertaken in January 2013 to assess the extent and prioritise areas.

The river wall is a king post pile retaining wall construction over most of its length. Precast concrete piles driven into the river bed retain precast concrete wall panels, which themselves retain the bank material to the rear of the wall. A reinforced concrete capping beam finishes the top of the wall, providing a finish to the piles and wall panels.

The survey confirmed that the piled wall is beginning to fail and lean into the river. The integrity of the riverbank being broken down into four categories:

Significantly leaning into the river = 138m

Leaning into the river = 148m

Slightly leaning into the river = 70m

No Lean into the river = 504m

Other issues identified where voids forming at the back of the wall that could be a trip hazard (this is prevalent along 250m of bank) and the capping beam is also in poor condition in a significant number of areas.

There is also significant tree root ingress into the river in places that is undermining sections of wall that are not yet leaning.

The Environment Agency, in line with the European Water Framework Directive no longer advocates the use of hard engineering of riverbanks in locations where soft engineering and habitat diversification can be championed. As this site has recently been designated a Local Nature Reserve, officers are proposing the use of natural techniques of bank stabilisation using aquatic vegetation and natural materials.

The costs of riverbank schemes are significant and a phased programme of prioritised stretches is proposed. Phase one being to design the scheme in its entirety and to tackle the area's most at risk of failing.

Asset management group have considered the project and recommended to approve the approach.

4. Implications

(a) Financial Implications

The initial phase of the Capital scheme SC551 (Cost Centre 38182) was approved as part of the 2012 Medium Term Strategy presented to Council on 25 October 2012. Additional works will be required in subsequent phases, subject to officers prioritising further sections and preparing budget bids in 2014/15 and beyond.

(b) Staffing Implications

The design and build contract will limit the need time. However, the client role will still require input from Streets & Open Spaces Officers, including contract management and checking progress against agreed targets and sign off upon satisfactory completion.

(c) Equal Opportunities Implications

There are no equal opportunity implications identified with the proposed scheme. The tender specification requires the successful contractor to consider opportunities for maintaining and enhancing access for all to the riverbank.

(d) Environmental Implications

The proposed soft engineering approach to the riverbank will help to increase the riparian habitats and biodiversity of this stretch of the River Cam. Rivers and their floodplains provide key opportunities for wildlife to disperse through the countryside and City, enhanced habitats will therefore aid organisms in their ability to adapt and move in relation to a changing climate. These habitats will both diversify the Local Nature Reserve and provide interest to recreational users and commuters on the adjacent cycle path, potentially increasing the number of local people using the Common.

The works are ultimately more sustainable than a replacement concrete option as there is less embodied CO2 within the initial construction and the natural vegetation establishes to prevent further erosion by navigation.

Procurement 100k has been allocated in 2013/14 for the design and build of the first phase. This will be tendered in line with procurement rules and advertised with specialised contractors invited to bid for the works.

Consultation and communication

The proposed scheme will be subject to stakeholder consultation including the Friends of Stourbridge Common, Cam Conservators, The BCN Wildlife Trust and Environment Agency, as well as with site users through the use of onsite notices. The area is used extensively by local people as a commuter route between Fen Ditton and the City centre, via a surfaced footpath and cycle way (several metres from the existing river bank line), it is a popular dog walking and picnicking route and several house boats have temporary mooring licences. Fishing occurs and the water way is popular with rowing clubs and visiting motor boats.

The opposite northern river bank comprises mainly rear gardens of private properties and their moorings. These properties will be letter dropped during the consultation phase.

5. Background papers

These background papers were used in the preparation of this report:

River Cam Wall Survey, MLM Consulting, 1st February 2013

Cambridge City Council Medium Term Strategy 2013/14

6. Appendices

Location Map

7. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name:	Guy Belcher
Author's Phone Number:	01223 458532
Author's Email:	Guy.belcher@cambridge.gov.uk