

**BRISTOL CITY COUNCIL  
CABINET  
6<sup>th</sup> September 2016**

**REPORT TITLE: EU Horizon 2020 Bid – Nature Based Solutions**

**Ward(s) affected by this report: Knowle Ward**

**Strategic Director: Barra Mac Ruairi**

**Report author: Patrick Goodey, Flood Risk Manager**

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**Purpose of the report:**

Following SLT briefing in February 2016, BCC, with partners, have made it to the second bid stage for EU funding as part of Horizon 2020. The overall bid is for approximately £10m - £12m (€12 - €14m), of which Bristol City Council would be allocated in the region of £1.5m (100% funded, no BCC match funding required). The funding will be to deliver natural based solutions to water and flood risk management in the Knowle Park area of Bristol. The funding, and UK cities ability to bid for it, has been confirmed by the European Commission despite the referendum outcome for the UK to leave the EU in June 2016.

**RECOMMENDATION for the Mayor's approval:**

To seek approval for officers to submit a bid to the European Union (EU) Horizon 2020 initiative, which has the potential (if BCC are successful) to commit the Council to spend over £1.5m of EU grant funding to deliver natural based solutions to water and flood risk management in the Knowle Park area of Bristol. Approval also sought to commence the project, should the bid be successful.

**The proposal:**

1. Bristol, as one of the top 10 cities in the country at risk from surface water flooding, has identified, via our Local Flood Risk Management Strategy, natural based solutions such as sustainable drainage (SuDS) as a substantial method to mitigate this risk, deliver improved urban realm and place making. SuDS align with the aspirations of the European Green Capital and 100 Resilient Cities initiatives.
2. SuDS are a way of using natural methods to manage drainage and surface water runoff, as opposed to more traditional methods such as pipes and sewers. SuDS reduce flood risk by slowing water down, sometimes allowing it to absorb into the ground and ensuring a more resilient drainage system. They also have many wider benefits over traditional systems as they improve water quality, air quality, create a more attractive urban realm and hence have benefits to the health and wellbeing of communities. Plates 1 and 2 give some examples of SuDS both installed and in

design phase in Bristol.



Plate 1 – Roadside SuDS recently installed by BCC in Southmead (note the plants have not matured)



Plate 2 – concept design of SuDS in an open space in Knowle

3. Green infrastructure and SuDS interventions achieve many co-benefits from water quality improvements, biodiversity and health and wellbeing for people. However, such interventions can be difficult to fund as current funding mechanisms are relatively rigid. We have already explored such funding from sources such as the EA, without success. As such, the lack of funding is significantly limiting the potential ambition of potential SuDS schemes such that their benefits cannot be fully realised.
4. Given our commitment to promoting SuDS, we are currently completing (resourced and funded from Flood Team budgets) a feasibility study that has identified the Knowle Park area of the Brislington Brook catchment as the most appropriate area of Bristol to consider a retrofit SuDS scheme, based on a multi-criteria analysis. We will use the outputs and concept designs (such as Plate 2 above) from this in our bid.
5. We have identified an opportunity, through the European Union (EU) Horizon 2020 initiative, to bid for grant funding to deliver an innovative SuDS scheme that would fund construction of SuDS features but also explore methods to future-proof the delivery of such scheme through exploring incentivising the uptake of local-level SuDS (e.g. household level SuDS).
6. Bristol would join with Utrecht and Bologna as Lead Demonstrator Cities. The Bristol team consists of BCC, Wessex Water, Avon Wildlife Trust, WoE Nature Partnership and UWE.
7. Team roles on the bid and project are clear. Within BCC, the Flood Team would lead on technical aspects and delivery/construction of the SuDS, Neighbourhoods to lead on investigating and monitoring the revenue funding implications and community benefits, Sustainable City team will lead on further embedding NBS in BCC policies (e.g. Local Plan). We have strong and clear links with the roles our city partners have on the project – UWE will be leading on data dissemination, Avon Wildlife Trust will be leading on community engagement and Wessex Water will be leading on exploring methods of incentivising uptake of small scale SuDS.
8. Our bid will be strengthened by the design and construction knowledge gained through completion of a retrofit SuDS scheme on Embleton Road in Southmead (Plate 1).

9. The Flood and Sustainable City teams are also currently leading on discussions with internal colleagues to embed the method of sustainable drainage within our own schemes and projects designs. Such methods require a change in culture that also requires a strategic lead, which the proposed project would assist with.
10. The project would have a strong community and stakeholder focus and provide funding for the Bristol team to undertake customer engagement. This would include exploring future potential funding mechanisms that could incentivise the uptake of future green infrastructure/SuDS schemes, on a property scale. An important action for the project is to therefore produce and maintain an engagement plan.
11. The total funding for the project is approximately £10m - £12m (€12 - €14m), of which Bristol City Council will be allocated approximately £1.5m (100% funded, no BCC match funding required). This funding will be used for staff time recharging and direct costs, such as construction.
12. The bid is two-stage, Bristol were successful in Stage 1. The Stage 2 deadline is 6<sup>th</sup> September 2016. If successful, the project timescale would be from 2017-21.
13. The decision as to the components of the bid is in our control. Through discussions with stakeholders we have agreed that a Bristol proposal would fund construction and monitoring of green infrastructure/SuDS as a pilot scheme, building on the existing SuDS feasibility study and our scheme at Embleton Road in Southmead.
14. An important consideration of the construction of any scheme is the cost of their maintenance. We estimate (based only on 'scaling up' the costs from the Embleton Road scheme) that maintenance costs could be in the region of £150k - £200k in total to cover a 15-20 year period (therefore approximately £8k-£15k per year). Maintenance costs cannot be included in the EU grant claim and therefore needs to be found by the project team. Options to obtain such costs will be explored during the completion of the bid with project partners and the community. If required (depending on the outcome of the above explorations), the Flood Team have confirmed that they can contribute approximately £60k as a commuted sum towards the maintenance costs, with options to provide ongoing, annual contributions. Outline discussions with Wessex Water have indicated that they are, in principle, also potentially willing to contribute a significant sum (at least matching the BCC contribution) towards the maintenance provided the scheme meets their justification criteria. A Memorandum of Understanding is currently (at the time of writing) being agreed with Wessex Water to confirm project roles and commitments, we aim to have the MoU signed before the Cabinet meeting.
15. Given the importance of community engagement on the scheme, discussions have commenced with the relevant local community engagement officers.
16. This is a fantastic opportunity for BCC to implement and embed nature-based solutions, if successful, the funding will ensure we deliver a much more ambitious and beneficial scheme than we can deliver without the funding.

**Consultation and scrutiny input:**

Given the nature of the potential project, there would be various teams within BCC involved in the project, notably the Flood Risk Team (which sits in Strategic City Transport); Neighbourhoods and Sustainable City. Colleagues from all teams have been heavily involved in preparing the bid and have briefed their management teams. Given the nature of the bid, it was not deemed necessary to liaise with a scrutiny commission.

**a. Internal consultation:**

As above and outlined in Cabinet report 1 – Version Checker

**b. External consultation:**

No public consultation is required at this stage. We have, and continue to, liaise closely with the wider Bristol team, which consists of external partners such as UWE, Wessex Water, Avon Wildlife Trust and West of England Nature Partnership. Local Ward members have been informed of the bid.

**Other options considered:**

The alternative option is to not submit a bid, but this was ruled out on the basis that this would limit the ambition of a potential scheme.

**Risk management / assessment:**

<b>FIGURE 1</b>							
<b>The risks associated with the implementation of the (subject) decision :</b>							
No.	RISK  Threat to achievement of the key objectives of the report	INHERENT RISK  (Before controls)		RISK CONTROL MEASURES  Mitigation (ie controls) and Evaluation (ie effectiveness of mitigation).	CURRENT RISK  (After controls)		RISK OWNER
		Impact	Probability		Impact	Probability	
1	BCC teams would not have the resources to complete the project	Med	Med	The bid allows us to reimburse our time, as well as any external support (e.g. consultants) required to help with resourcing	Med	Low	Service Director - Transport
2	Project timescales too short to allow construction of SuDS interventions	High	Med	We have completed a feasibility study. Ensure appropriate level of investigation and consideration complete for the bid. Utilise existing designs e.g. Embleton Road	Med	Low	Service Director - Transport

<b>FIGURE 2</b>							
<b>The risks associated with <u>not</u> implementing the (subject) decision:</b>							
No.	RISK  Threat to achievement of the key objectives of the report	INHERENT RISK  (Before controls)		RISK CONTROL MEASURES  Mitigation (ie controls) and Evaluation (ie effectiveness of mitigation).	CURRENT RISK  (After controls)		RISK OWNER
		Impact	Probability		Impact	Probability	
1	Size and scale of the scheme is significantly reduced, which would result in no reduction of flood risk (or achieving wider benefits) in the area	Med	High	Progressing with the bid will ensure our ambitions are achievable	Low	Medium	Service Director - Transport

### **Public sector equality duties:**

***Before making a decision, section 149 of the Equality Act 2010 requires that each decision-maker considers the need to promote equality for persons with the following “protected characteristics”: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, sexual orientation. Each decision-maker must, therefore, have due regard to the need to:***

***i) eliminate discrimination, harassment, victimisation and any other conduct prohibited under the Equality Act 2010.***

***ii) advance equality of opportunity between persons who share a relevant protected characteristic and those who do not share it. This involves having due regard, in particular, to the need to:***

***- remove or minimise disadvantage suffered by persons who share a relevant protected characteristic.***

***- take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of people who do not share it (in relation to disabled people, this includes, in particular, steps to take account of disabled persons' disabilities);***

***- encourage persons who share a protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.***

***iii) foster good relations between persons who share a relevant protected characteristic and those who do not share it. This involves having due regard, in particular, to the need to tackle prejudice and promote understanding.***

***Guidance:***

Bristol City Council Equality Impact Relevance Check is attached at Appendix A

### **Eco impact assessment**

By their very nature this type of intervention is designed to improve the natural environment and help to mitigate the impact of climate change. A range of retrofitted sustainable urban drainage interventions will be made by Bristol City Council that will decrease the risk of local surface water flooding in parts of Bristol and have co-benefits of increasing natural habitats, improving the public realm by changing it from hard surface to softer greener places and reducing diffuse urban pollution. The community engagement part of the project will promote additional natural solutions for gardens and other urban spaces with communities and individuals that will serve to benefit the environment for the life of the project and beyond. There are minimal negative impacts such as using non-natural membranes and fittings in the drainage systems but these are greatly outweighed by the positive impacts.

The net effects of the proposals are significantly positive.

Kathy Derrick, Environment Team Manager, 12<sup>th</sup> July 2016

### **Resource and legal implications:**

#### ***Finance***

#### **a. Financial (revenue) implications:**

The completed capital works will present a need for ongoing maintenance which we estimate will have a revenue cost of £15k / annum. Through the project we are exploring mechanisms to fund this maintenance with external partners that benefit from the scheme, and this is a key output from the project to ensure future uptake of similar schemes. As a last resort maintenance will be funded through existing revenue budgets.

**Advice given by** Mike Allen / Finance Business Partner  
**Date** 27 July 2016

**b. Financial (capital) implications:**

See above, there are no capital implications from the grant application or indeed from the application of grant funds to a single project.

**Advice given by** Mike Allen / Finance Business Partner  
**Date** 14 July 2016

**Comments from the Corporate Capital Programme Board:**

Not applicable at this time. If ACQUA bid is successful officers will take report to Capital Board as appropriate.

**c. Legal implications:**

The implementation of the interventions would be done so using powers under the Highways Act and the Flood and Water Management Act 2010. BCC are a competent authority in both pieces of legislation

**Advice given by** Pauline Powell  
**Date** 14<sup>th</sup> July 2016

**d. Land / property implications:**

Property implications are restricted to interventions within the adopted highway or adjacent BCC existing land ownership. No land acquisition or disposal activity is expected as a consequence of this report

**Advice given by** Steve Matthews, Asset Delivery Manager  
**Date** 27 July 2016

**e. Human resources implications:**

If the bid is successful, there will be a requirement for an additional post (1 FTE) which will be funded through the grant. Beyond this, the project will be delivered within in existing staffing resources

**Advice given by** Mark Williams, HR Business Partner  
**Date** 27 July 2016

**Appendices:**

Appendix A - Bristol City Council Equality Impact Relevance Check  
Appendix B – Eco Impact Checklist

**Access to information (background papers):**

None

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