



## Application Form (for Tranche 2A)

The level of information provided should be proportionate to the size and complexity of the scheme proposed. Note that DfT funding is a maximum of £5 million per scheme. An individual local authority may apply only for one scheme.

For schemes submitted by components of a Combined Authority a separate application form should be completed for each scheme, then the CA should rank them in order of preference.

### Applicant Information

**Local authority name:** West of England Combined Authority

*Name and position of officer with day to day responsibility for delivering the proposed scheme.*

**Bid Manager Name and Position:** Jon Munslow, Asset and Infrastructure Group Manager, South Gloucestershire Council

**Contact telephone number:** 0145486 3910    **Email address:** Jonathan.Munslow@southglos.gov.uk

**Postal address:** Council Offices, Badminton Road, Yate, South Gloucestershire, BS37 5AF

### **Combined Authorities**

*If the bid is from a local highway authority within a Combined Authority, please specify the contact and ensure that the Combined Authority has submitted a Combined Authority Application Ranking Form.*

**Name and position of Combined Authority Bid Co-ordinator:** Emma Blackham, Strategic Transport Policy Manager, South Gloucestershire Council

**Contact telephone number:** 0145486 4115    **Email address:** Emma.Blackham@southglos.gov.uk

**Postal address:** Council Offices, Badminton Road, Yate, South Gloucestershire, BS37 5AF

When authorities submit a bid for funding to the Department, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department. The Department reserves the right to deem the business case as non-compliant if this is not adhered to.

**Please specify the weblink where this bid will be published:**

<http://www.southglos.gov.uk/transport-and-streets/transport/planning-transport-policy/>  
<https://www.bristol.gov.uk/streets-travel/local-highways-maintenance-challenge-fund>

## **SECTION A - Scheme description**

**A1. Scheme name:** South Gloucestershire / Bristol Flood Resilience Project

### **A2. Headline description:**

Please enter a brief description of the proposed scheme and its timetable including the completion date (in no more than 50 words)

Package of resilience measures to address long standing flooding problems for key highway infrastructure across Bristol and South Gloucestershire. The scheme will introduce innovation and reduce future reactive maintenance cost.

**BCR = 11.6**

Investigations: March – June 2017

Design: April – September 2017

Implementation: September – March 2018 (completion)

(See **Appendix 1** for Project Programme)

### **A3. Geographical area:**

Please provide a short description of area covered by the bid (in no more than 50 words)

10 locations in Bristol and South Gloucestershire have been identified along strategic highway routes (A4, A431, and A4175), distributor roads serving residential areas (Scotland Lane, Beckspool Road) and roads serving isolated communities (Oldbury-on-Severn).

#### **OS Grid Reference & Postcode**

Authority	Location	Road Class	Road Hierarchy	Postcode Location	OS Grid Ref
SGC	A431 Bath Road, Swineford	A	4	BS30 6LW	ST 69135 69021
SGC	C231 Oldbury on Severn	C	6	BS35 1QB	ST 61065 92472
SGC	C232 Oldbury Lane, Thornbury	C	4	BS35 1RD	ST 63260 91973
SGC	Beckspool Road, Frenchay	U	5	BS16 1NU	ST 64163 77983
SGC	C317 Abson Road, Wick	C	6	BS30 5TS	ST 70440 74278
SGC	A4175 Cherry Garden Road, Bitton	A	4	BS30 6JQ	ST 67259 70459
SGC	B4058 High Street, Winterbourne	B	4	BS36 1JG	ST 65035 80927
SGC	A420 High Street, Wick	A	4	BS30 5QJ	ST 70492 72727
SGC	B4058 Bagstone Road, Bagstone	B	4	BS37 7NE	ST 68963 86842
BCC	Scotland Lane, Stockwood	U	6	BS14 8NR	ST 63137 69401

Please append a map showing the location (and route) of the proposed scheme, existing transport infrastructure and other points of particular interest to the bid e.g. development sites, areas of existing employment, constraints on land use, planning etc.

Large scale location plan included in **Appendix 2** and flooding areas shown in **Appendix 3a, 3b and 3c (Photographs)**.

### **A4. Type of scheme (please tick relevant box):**

**Small project bids** (requiring DfT funding of **up to £5 million**)

Major maintenance, strengthening or renewal of bridges, tunnels, retaining walls or other structures

Major maintenance or renewal of carriageways (roads)

Major maintenance or renewal of footways or cycleways

Major maintenance or renewal of drainage assets

## **SECTION B – The Business Case**

### **B1. The Financial Case – Project Costs and Profile**

Before preparing a scheme proposal for submission, bid promoters should ensure they understand the financial implications of developing the scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Department's maximum contribution.

Please complete the following tables. **Figures should be entered in £000s** (i.e. £10,000 = 10).

**Table A: Funding profile (Nominal terms)**

<b>£000s</b>	<b>2017-18</b>		<b>Total</b>
	<b>South Gloucestershire Council</b>	<b>Bristol City Council</b>	
<i>DfT Funding Sought</i>	£2800	£550	£3350
<i>LA Contribution</i>	£280	£55	£335
<i>Other Third Party Funding</i>			

Notes:

1) Department for Transport funding is only for the 2017-18 financial year.

2) A minimum local contribution of 10% (by the local authority and/or third party) of the project costs is required.

See **Appendix 4** for outline project costing.

### **B2 Local Contribution / Third Party Funding**

Please provide information on the following points (where applicable):

- a) The non-DfT contribution may include funding from organisations other than the scheme promoter. Please provide details of all non-DfT funding contributions to the scheme costs. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available.

This confirms that South Gloucestershire Council and Bristol City Council would be supporting the bid by a contribution of **10%** of the total funding required to deliver this project. This will be from Council reserves /contingency budgets and will therefore ensure that already programmed schemes are unaffected.

- b) Where the contribution is from external sources, please provide a letter confirming the body's commitment to contribute to the cost of the scheme. The Department is unlikely to fund any scheme where significant financial contributions from other sources have not been secured or appear to be at risk.

Have you appended a letter(s) to support this case?  Yes  No  N/A

c) Please list any other funding applications you have made for this scheme or variants thereof and the outcome of these applications, including any reasons for rejection (e.g. through the Access Fund or similar competition).

N/A

### B3. Strategic Case (Maximum 50 words for each section a) to g)

This section should briefly set out the rationale for making the investment and evidence of the existing situation, set out the history of the asset and why it is needs to be repaired or renewed. It should also include how the scheme it fits into the overall asset management strategy for the authority **and why it cannot be funded through the annual Highways Maintenance Block Funding grant.**

a) What are the current problems to be addressed by your scheme? (Describe economic, environmental, social problems or opportunities which will be addressed by the scheme).

Strategic highway routes suffer from poor drainage systems. During heavy rainfall severe traffic disruption occurs. Existing funding is insufficient to tackle problems as major investment is required. This grant would provide the opportunity to upgrade these systems and reduce flood risk which will result in a more resilient highway network.

b) Why the asset is in need of urgent funding?

Reactive maintenance recently increased at these sites and disruption to the highway network occurs more frequently due to deteriorating condition of the existing drainage. Increased flood risk is further exacerbated by climate change. The proposed scheme would replace existing systems with an effective drainage system incorporating SUDS and larger outfalls.

c) What options have been considered and why have alternatives been rejected?

The retrofit of soakaways or storage tanks is not an option due to existing site constraints. "Do nothing" is discounted as more frequent heavy rainfall events are expected increasing flood risk. Disruption to the highway network from congestion and road closures will negatively impact the local economy and local communities.

d) What are the expected benefits / outcomes?

A reduction in disruption to the highway network caused by flooding or repair works to existing drainage. Rural communities will no longer be isolated and there will be less strain on emergency services. A resilient network will also enhance economic opportunities in the region, promoting job creation and property development.

e) Please provide information on the geographical areas that will benefit from your scheme.

A number of Strategic routes (A431, A4, A4175) linking Bristol to surrounding communities would benefit. Distribution roads in suburban areas of Greater Bristol would also benefit as well as isolated community of Oldbury-on-Severn. The HIRAM system has been used to guide site identification process.

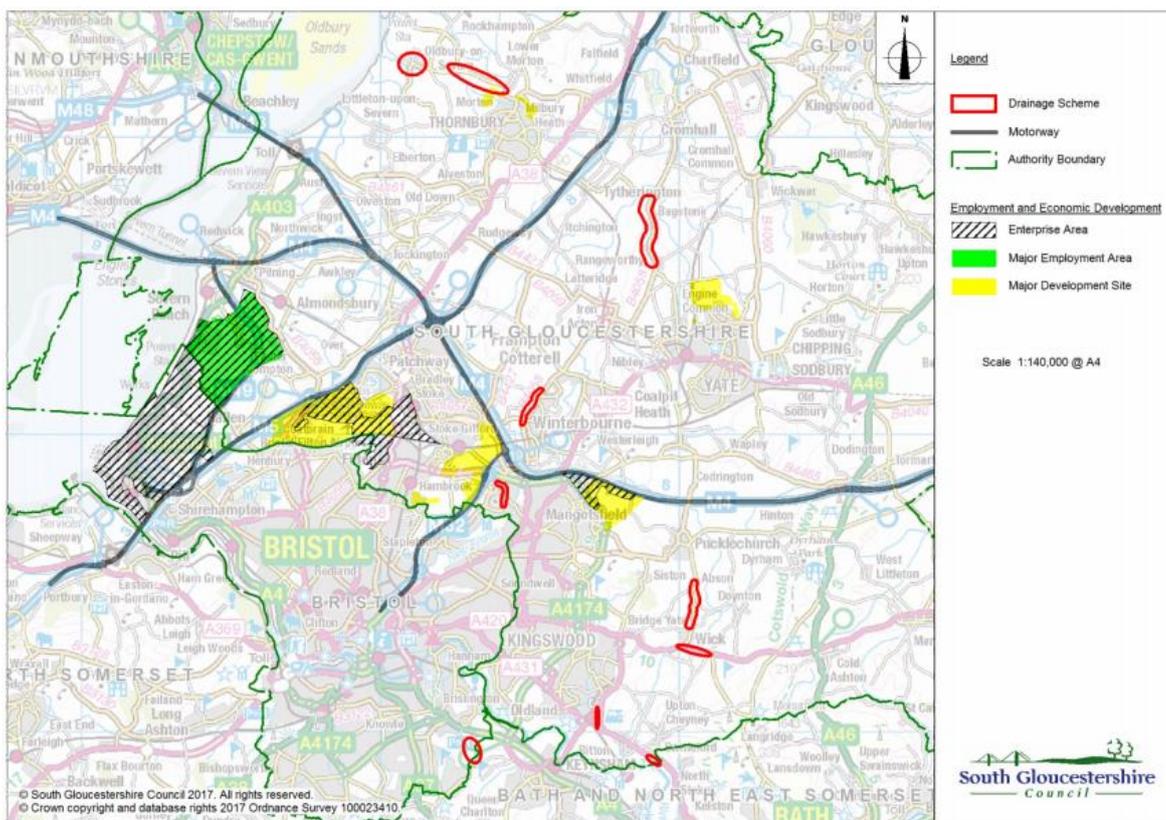
Please see **Appendix 5** for plan showing economic benefit areas.

f) What will happen if funding for this scheme is not secured - would an alternative (lower cost) solution be implemented (if yes, please describe this alternative and how it differs from the proposed scheme)?

If funding is not granted, then the risk of disruption to the highway network in South Gloucestershire and Bristol is increased. With predictions surrounding climate change and funding restrictions, areas currently not at risk of surface water flooding may become vulnerable with both authorities becoming reactive to surface water management.

g) What is the impact of the scheme?

The overall impact of the scheme is a reduction in the disruption to the highway network during periods of heavy rainfall; this in turn promotes investment and development in the area. The scheme will also reduce the demand on emergency services and reconnect isolated rural communities.



#### B4. Affordability and Financial Risk (maximum 50 words for each of a) to c)

What is your Authority's most recent total outturn annual capital spending on highways maintenance

**South Gloucestershire Council**

(Year 2015/16) - £6,337 figures should be entered in £000s (i.e. £10,000 = 10)

What is the DfT contribution sought as a % and that annual total 44.184 % (to 3 decimal places)

**Bristol City Council**

(Year 2015/16) - £5,986 figures should be entered in £000s (i.e. £10,000 = 10)

What is the DfT contribution sought as a % and that annual total 9.188 % (to 3 decimal places)

This section should provide a narrative setting out how you will mitigate any financial risks associated with the scheme. Please provide evidence on the following points (where applicable):

a) What risk allowance has been applied to the project cost?

A risk contingency of 10% has been applied to the project

b) How will cost overruns be dealt with?

Any cost overruns would be met by either South Gloucestershire Council or Bristol City Council from their own resources

The standard South Gloucestershire Council corporate project management guidelines will be followed. This is based on APM methodology whereby normal good project management governance will be applied. This includes maintaining a detailed project management plan, risk register and effective financial management.

c) What are the main risks to project delivery timescales and what impact this will have on cost?

The main risks to the delivery of this scheme have been identified in the risk register **Appendix 6** as: (Top 5 Risks in Risk Register)

- Utility service diversions required as part of the works causing potential for delays (Risk no 5) Mitigation-Plan works to account for services risk, early liaison with statutory undertakers as part of the design process. Result =Minor effect on cost and time.
- The scale of the drainage improvement works required to address the drainage problems is significantly more following detailed investigations and could potentially reduce the number of schemes that could be implemented. (Risk no 1) Mitigation- Set a priority of delivery for each scheme based on flood risk and cost to ensure schemes delivered offer the highest value. Result =Minor effect on cost and time.
- Design resources are unavailable during the investment period and works may not get delivered on time. (Risk no 2) Mitigation- Set early notification with the Council's Design team (Streetcare) to ensure the project is delivered within the timescales required. Council will ensure these resources are made available as the design team is their own in-house workforce. Result = Minor effect on time
- Delivery resources are unavailable during the investment period and works may not get delivered on time (Risk no 3). Mitigation- Set early notification with the Council's Operations team (Streetcare) to ensure the project is delivered within the timescales required. Council will ensure these resources are made available as the design team is their own in-house workforce. Result = Minor effect on time
- Procurement of Specialist Engineering outside of existing in-house workforce (Streetcare) creates delay (Risk no 4). Mitigation-Commence procurement early. Make use of the Council's framework contract for specialist services. Avoid complex solutions where simple options exist. Result=No impact on cost or time.

These risks will primarily affect the ability to deliver the scheme to the stated programme, rather than the overall cost of the scheme. However the governance structure for the project includes a dedicated project board and team to ensure risk mitigation measures are instigated in a timely manner.

## B5. Equality Analysis

Has any Equality Analysis been undertaken in line with the Equality Duty?  Yes  No

All elements of the bid have been developed in accordance with the Equality Act 2010 and in conjunction with regulations set in the South Gloucestershire Council Policy and requirements set out in the Disability Discrimination Act 2005.

Please see **Appendix 7**

## B6. Value for Money

**a) For all scheme bids, promoters should provide, where available, an estimate of the Benefit Cost Ratio (BCR) of the scheme.**

Where a BCR is provided please be aware that DfT may wish to scrutinise the data and assumptions used in deriving that BCR.

The Combined Authority Flood Resilience Scheme has been assessed to have a **BCR of 11.6**, based on transport related benefits (diversion avoidance, road surface improvements and accidents), using a 25 year evaluation period.

Further detail is provided below.

A Technical Note ('DfT Maintenance Challenge Fund 2017, Combined Authority Flood Resilience Scheme, Value for Money', March 2017) documents the analysis carried out. This is provided as an Annex to this application. **Appendix 8 and 9**

**b) Please provide the following data will form a key part of our assessment:**

Note this material should be provided even if a BCR estimate has been supplied **and** has also to be entered and returned as an MS Excel file in the VfM Annex MS Excel file).

A description of the do-minimum situation (i.e. what would happen without Challenge Fund investment).

Regular carriageway flooding - which results in diversions and some isolation for affected communities; also damage to adjacent property as a result of passing traffic pushing water into properties.

Reactive maintenance and property damage costs would continue, and the road surface gradually degrade.

All ten scheme locations are places where carriageway flooding occurs on a regular basis. Locations were identified through HIRAM site records as being a high priority among locations with a recorded flooding problem, most having a record of several incidents of flooding each year, delaying road users and increasing wear and damage to the road surface. Flooding is typically caused by inadequate or problematic drainage systems.

Details of significant monetised and non-monetised costs and benefits of the scheme (quantified where possible)

[Value for Money evaluation](#)

Summary information relating to the calculation of monetised impacts of the scheme are below. The Technical Note ('DfT Maintenance Challenge Fund 2017, Flood Resilience Scheme, Value for Money', March 2017) documents the analysis carried out in more detail. This technical note is provided as

an Annex to this application.

### Costs

Total scheme capital costs are £3.35m. These are applied with a 15% optimism bias in the cost benefit assessment. There are no scheme operating costs per se, but current reactive maintenance and property damage costs are substantially reduced by the scheme. Current reactive maintenance at the ten scheme locations totals £132,000 per annum, with liability for property damage costs estimated at £28,100 per annum. These amounts are reduced to £17,200 and £6,800 respectively with the scheme in place (a saving of £136,100 per annum).

The present value of costs over 25 years is £1.2m (2010 prices).

### Benefits

Scheme benefits have been calculated (2010 prices), considering:

- Reductions in delay and diversionary working when scheme locations are flooded – Flood alleviation related benefits for the flood resilience scheme are calculated at £6.8m over 25 years.
- Vehicle speed and operating cost benefits from improvements to the road surface – the estimated net pavement resurfacing benefit is £4.8m over 25 years (2010 prices), with around 57% resulting from reduced vehicle operating cost (the remainder being time related).
- Accident benefits from improved road surfaces – the monetised accident reduction benefits in the opening year (2018) is: £12,641, with overall accident reduction benefits discounted over 25 years being £0.3m (2010 prices).
- Benefits of reduced property damage to insurers of £1.8m (2010 prices)
- Also, the potential wider economic benefits of reducing the effects of regular flooding have been assessed, though the monetised results of this assessment have not fed into calculation of BCR.

The total present value of benefits over 25 years is £13.5m (2010 prices).

### Cost Benefit

Costs and benefits associated with the scheme have been used to undertake a cost benefit analysis, bringing together potential benefits from reductions in delay and diversionary working when scheme locations are flooded, vehicle speed and operating cost benefits from improvements to the road surface and accident benefits from improved road surfaces in the cost benefit analysis.

Scheme costs are summarised as follows:

Public Accounts	(£'000)
Investment costs	£2,782
Operating costs (reduced maintenance)	-£1,620
Broad Transport Budget	£1,162
Wider Public Finances	£154
2010 values and prices	

The cost benefit analysis is summarised as follows:

#### Analysis of Monetised Costs and Benefits (£'000)

Accidents	£270
Economic Efficiency	£13,335
Wider Public Finances	-£154
Net Present Value (NPV)	£12,289
Benefit Cost Ratio (BCR)	<b>11.6</b>
2010 values and prices	

The assessment indicates the scheme represents very high value for money with a BCR of 11.6. Full AMCB and Public Accounts tables are provided in the Technical Note (Annex).

### Wider economic benefits

In addition, the potential wider economic benefits of reducing the effects of regular flooding have also been investigated.

The annual value of safeguarded GVA is estimated at £393,000 per annum (2015 prices) for direct impacts of the scheme. Based on a 25 year appraisal period, the present value of direct impacts is estimated at £6.7m. For indirect impacts, the annual value of safeguarded GVA is estimated at £35,000 per annum in 2017 (2015 prices), rising to

	<p>£41,000 by 2036. With a 25 year appraisal period, the present value of indirect impacts is estimated at £0.7m.</p> <p>Combining the direct and indirect GVA impacts gives an annual value of £429,000 in safeguarded GVA. Based on a 25 year appraisal period, the present value of benefits is estimated at £7.4m. With this scale of benefits and a present value of costs of £1.6m (2015 prices and values), the schemes will achieve a very high wider economics BCR of 4.5.</p>
Length of scheme (km)	28.0km – area wide scheme in ten locations
Number of vehicles on affected section (Average Annual Daily Traffic in vehicles and if possible split by vehicle type) – to include details of data (age etc.) supporting this estimate.	<p>All vehicles - 74,680 AADT</p> <p>Cars - 63,559 AADT LGV - 7,784 AADT HGV - 2,764 AADT</p> <p>Total AADT at all nine locations, based on local traffic counts at the locations (except location '5' which is derived from the regional traffic model), all uplifted to 2017 flows using GBATS4 future year models.</p> <p>Vehicle type split based on weighted average of classified counts (5 out of the 9 sites with counts were classified by vehicle type).</p>
<b>c) Other VfM information where relevant - depending on type of scheme bid:</b>	
Details of required restrictions/closures if funding not provided (e.g. type of restrictions; timing/duration of restrictions; etc.)	Regular carriageway flooding - which results in diversions and some isolation for affected communities; also damage to adjacent property as a result of passing traffic pushing water into properties.
Length of any diversion route, if closure is required (over and above existing route) (km)	Varies across scheme locations: Between 1km and 15km
Regularity/duration of closures due to flooding: (e.g. number of closures per year; average length of closure (hrs); etc.)	<p>Varies across scheme locations:</p> <p>Number of closures/year: 1-8 Duration of closure: 6-48 hrs (2-4 weeks at location '10')</p> <p>Length of diversion: 1-15 km Extra time in using diversion: 5-20 mins</p>
Number and severity of accidents: both for the do minimum and the forecast impact of the scheme (e.g. existing number of accidents and/or accident rate; forecast number of accidents and or accident rate with and without the scheme)	<p>DM Total Accidents: 7 per yr DM Slight Accidents: 7 per yr DM Serious Accidents: 0 per yr DM Fatal Accidents: 0 per yr DM Accident Rate - 012/MVKm</p> <p>DS Total Accidents: 6.3 per yr DS Slight Accidents: 6.3 per yr DS Serious Accidents: 0 per yr DS Fatal Accidents: 0 per yr</p>

	DS Accident Rate - 0.10/MVKm
Number of existing cyclists; forecasts of cycling usage with and without the scheme (and if available length of journey)	Not assessed

## B7. The Commercial Case

This section categorizes the procurement strategy that will be used to appoint a contractor and, importantly for this fund, set out the timescales involved in the procurement process to show that delivery can proceed quickly.

What is the preferred procurement route for the scheme? For example, if it is proposed to use existing framework agreements or contracts, the contract must be appropriate in terms of scale and scope.

Framework Contract

Council Contractor

Competitive Tender

The scheme will be delivered through an optimum combination of South Gloucestershire Council's own workforce provided by Design & Operations Team. The procurement will be collaboration between StreetCare, South Gloucestershire Councils operations arm and the established supply chain partners. This arrangement will enable a rapid mobilisation of design and contractor resource to achieve the required delivery timescales set out in the project plan, including the delivery of the schemes on the ground within twelve months as expected.

Early engagement of construction partners through the established supply chain will ensure project delivery deadlines are met and any risks mitigated early in the project planning.

The existing Framework contract of strategic construction partners puts local people employed by the supply chain and operations arm at the heart of the construction, strengthening local SMEs and promoting high quality workmanship. Resultant investment and spending by the supply chain will support local small businesses, greatly increasing the economic benefit of the direct investment in the road.

This procurement route has already been tested through both the recent DfT A4714 and A403 funding award and delivery on the ground. These and other schemes, further help justify South Gloucestershire Council's reputation for cost effective scheme delivery.

*\*It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department with confirmation of this, if required. An assurance that a strategy is in place that is legally compliant and is likely to achieve the best value for money outcomes is required from your Section 151 Officer below.*

## B8. Delivery (maximum 50 words for a) and 100 words for b)

a) Are any statutory procedures required to deliver the project, if yes please provide details below;

Yes  No

Details of statutory procedure (50 words maximum)

b) Please summarise any lessons your authority has learned from the experience of delivering other DfT funded programmes (such as Challenge Fund tranche 1, pinch point schemes, local majors, Local Sustainable Transport Fund, Better Bus Areas) and what would be different on this project as a result.

SGC have developed a significant track record of capital programme management and scheme delivery. We have extensive experience of delivering major infrastructure projects including:

A403 & A4174 Challenge Fund Schemes  
Local Pinch Point Fund schemes M5  
Cycle Ambition Fund  
Cycle City - cycle routes linking Bristol and South Gloucestershire;  
Better By Bus Area/Greater Bristol Bus Network

We have worked in partnership with a range of stakeholders using joint procurement and change management strategies. Past experiences and lesson learnt will be used to ensure best practices are implemented.

A governance structure for the scheme can be found in **Appendix 10**.

**B9. Stakeholder Support** (maximum 50 words for a) and 100 words for b)

Does this proposal have the support of the Local MP(s);

Yes  No

Letters of support can be found in **Appendix 11**.

**Name of MP(s) and Constituency**

- 1 Julie Girling, Member of the European Parliament representing South West England and Gibraltar
- 2 Chris Skidmore, Member of Parliament for Kingswood
- 3 Luke Hall, Member of Parliament for Thornbury, Yate and surrounding villages
- 4 Kerry McCarthy, Member of Parliament for Bristol East

**List other stakeholders supporting the Scheme:**

- 1 Wessex Water
- 2 Lower Severn Internal Drainage Board
- 3 Bristol Water
- 4 Federation of Small Businesses
- 5 Environment Agency
- 6 Bath and North East Somerset Council
- 7 West of England LEP

## **SECTION C: Declarations**

### **C1. Senior Responsible Owner Declaration**

As Senior Responsible Owner for the South Gloucestershire Flood Resilience Project I hereby submit this request for approval to DfT on behalf of South Gloucestershire Council and confirm that I have the necessary authority to do so.

I confirm that South Gloucestershire Council will have all the necessary powers in place to ensure the

planned timescales in the application can be realised.

Name:

Signed:

Position:

## C2. Section 151 Officer Declaration

As Section 151 Officer for South Gloucestershire Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that South Gloucestershire Council

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- will allocate sufficient staff and other necessary resources to deliver this scheme on time and on budget
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested
- has the necessary governance / assurance arrangements in place
- has identified a procurement strategy that is legally compliant and is likely to achieve the best value for money outcome
- will ensure that a robust and effective stakeholder and communications plan is put in place

Name:

David Perry

Signed:



## Submission of bids:

The deadline for bid submission is 5pm on:

**31 March 2017** for Challenge Fund Tranche 2A (2017/18 funding)

An electronic copy only of the bid including any supporting material should be submitted to:

[roadmaintenance@dft.gsi.gov.uk](mailto:roadmaintenance@dft.gsi.gov.uk) copying in [Paul.O'Hara@dft.gsi.gov.uk](mailto:Paul.O'Hara@dft.gsi.gov.uk)

## APPENDICES – Sent as separate files

**Appendix 1 Flood Resilience MCF Bid – Project Programme**

**Appendix 2 Flood Resilience MCF Bid – Location Plans**

**Appendix 3a Flood Resilience MCF Bid – Flooding Areas – Rivers and Sea**

**Appendix 3b Flood Resilience MCF Bid – Flooding Areas – Surface Water**

**Appendix 3c Flood Resilience MCF Bid – Photographs of Flooding**

**Appendix 4 Flood Resilience MCF Bid – Outline Project Costs**

**Appendix 5 Flood Resilience MCF Bid – Economic Benefit Areas**

**Appendix 6 Flood Resilience MCF Bid – Risk Register**

**Appendix 7 Flood Resilience MCF Bid – Equality Impact Assessment**

**Appendix 8 Flood Resilience MCF Bid – Value for Money Proforma**

**Appendix 9 Flood Resilience MCF Bid – BCR Technical Note**

**Appendix 10 Flood Resilience MCF Bid – Governance Structure**

**Appendix 11 Flood Resilience MCF Bid – Letters of Support:**

- a Julie Girling MEP**
- b Chris Skidmore MP**
- c Luke Hall MP**
- d Kerry McCarthy, Member of Parliament for Bristol East**
- e Wessex Water**
- f Lower Severn Internal Drainage Board**
- g Bristol Water**
- h Federation of Small Businesses**
- i Environment Agency**
- j Bath & North East Somerset Council**
- k West of England LEP**

**Appendix 12 Flood Resilience MCF Bid - Carriageway resurfacing figures and reports  
(information only)**