

**BRISTOL CITY COUNCIL
CABINET
4 October 2012**

REPORT TITLE: Rapid Transit Major Transport Scheme Bids: Ashton Vale to Temple Meads and City Centre Bus Rapid Transit Scheme; North Fringe to Hengrove Package and South Bristol Link

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

Cabot, Lawrence Hill, Southville, Bishopsworth, Bedminster, Frome Vale, Lockleaze, Eastville, Ashley, Easton, Windmill Hill, Filwood, Bishopsworth, Hartcliffe, Hengrove and Whitchurch

Strategic Director: Neighbourhoods & City Development

Report author: Alun Owen – Service Director (Major Projects) Neighbourhoods and City Development

Contact telephone no. (0117) 903 7481
& e-mail address: alun.owen@bristol.gov.uk

Report signed off by executive member: Cllr Tim Kent

Purpose of the report:

The previous report of 21 July 2011 asked Cabinet for their continued support for the development of the BFFB bids to DfT and their submission in September 2011. As a result of these bids programme entry was successfully gained for all three schemes in December. This report updates that position and requests further approvals to take the project forward together with the provision of £4.65m required for 2012/13 from the total of the £10 m allocated to the BRT from the Bristol's Future Package.

RECOMMENDATION for Cabinet approval:

1. That Cabinet continues to support the development of the schemes to enable the Department for Transport to grant full approval of the bids by December 2013.
2. That Cabinet approves the release of £4.65 m from the total of £10 m allocated to the schemes as part of the Bristol's future Package. This amount is required to fund the forecast costs of the schemes over 2012/13.
3. That Cabinet approves the application for the necessary statutory consents, licences and orders to enable project delivery in a timely manner. This will include, eg. planning applications, compulsory purchase orders, applications to statutory undertakings (gas, water and electricity), Transport and Highways orders, Town and Village Green applications.
4. That delegated authority is granted to the Strategic Director for Neighbourhoods and City Development and the Council's Section 151 Officer to further development of the schemes to full approval without recourse to Cabinet.

The Proposal:

Background

The three rapid transit schemes (**Ashton Vale to Bristol City Centre, North Fringe to Hengrove Package and the South Bristol Link**) form the rapid transit network which will be a higher quality experience, reliable, easy to use and understand, with modern vehicles. The rapid transit network will have clear information, fast boarding and 'smartcard' ticketing linking with wider bus and rail services, creating a new way of travelling and be a catalyst for transforming public travel across the West of England area.

The rapid transit network forms part of our overall aims to:

- Reduce carbon emissions;
- Support economic growth;
- Promote accessibility;
- Contribute to better safety, security and health; and
- Improve quality of life and a healthy natural environment.

The Local Enterprise Partnership (LEP) has a target to delivery 95,000 jobs by 2030. Further to this will be the challenge of delivering 72,000 new homes and associated jobs by 2026 as set out in the Authorities Core Strategies which will further strain a transport system that already suffers from chronic congestion because the development of transport infrastructure and services has not kept pace with economic development and expansion in the area. Investment in the rapid transit network will be key to delivering this economic growth.

With over 25,000 passengers per day (at least 5 million passengers per year) expected upon the commencement of the rapid transit operations, the tested package of five infrastructure schemes in the West of England (including the Bath Transportation Package and Weston Package) is expected to deliver additional economic output of £356 million per year (2010 prices) within the area.

Finance

The BFFB programme costs were in line with those reported as targeted in the previous Cabinet Report. The level of DfT grant funding remains the same.

BCC, SGC and NSC are responsible for providing all the funding for the feasibility work (This element of work is not DfT grant funded).

The costs of there works are £21.7 m and are included in the total BAFFB scheme costs above. Details are provided below

	Total Development Costs (£m)	Funded 2011/12 (£m)	Funding requirement 2012/13 (£m)	Funding requirement in later years (£m)
Ashton Vale to Temple Meads	5.0	1.1	3.4	0.5
South Bristol Link	9.4	1.1	2.3	6.0
North Fringe Hengrove Package	7.3	0.4	4.5	2.4
Total	21.7	2.6	10.2	8.9

The feasibility funding requirement is allocated between the Authorities as follows

	Total Development Costs (£m)	Funded 2011/12 (£m)	Funding requirement 2012/13 (£m)	Funding requirement in later years (£m)
Bristol	11.6	1.65	5.65	4.4
South Glos.	4.4	0.20	2.70	1.4
North Somerset	5.7	0.75	1.85	3.1
Total	21.7	2.6	10.2	8.9

An allocation of £ 4.65 m is required from the total of £10 m allocated to the BRT from the Bristol's Future Package to provide the funding for Bristol's share of the 2012/13 development expenditure. Details are provided below.

BCC Funding requirement 2012/13

	(£m)
Total Development costs	5.65
Less already allocated	1.00
Net Funding Allocation required	4.65

Statutory Consents

Projects of this size and complexity require a wide range of statutory consents. These are all required to be completed before the Department of Transport will give final approval.

These consents in the main will be applied for in the next 6 months. They include, but are not exhaustive to, Planning Permission; Building Regulations; Compulsory Purchase Orders, Statutory Undertakings Consents; Transport & Highways Orders.

There may also be a requirement to deal with any Town and Village Green applications.

Ensuring that there is Cabinet approval for the application for all statutory requirements on these projects will ensure that the programme timetable is achieved and that the projects proceed in good order.

Policy

These schemes are consistent with Council policy and priorities which include the Joint Local Transport Plan 3, Bristol's Core Strategy and the GBSTS. They are also aligned with both South Gloucestershire's and North Somerset's Core Strategies. The JTLP3 provides the statutory basis for the Bristol City Council's transport.

The implementation of these schemes will provide an effective integrated BRT transport system that offers an alternative to car use, reduces congestion and consequential carbon emissions, supports the city's dynamic and growing economy and improves quality of life. They also support the aspirations for a prosperous and inclusive community, and seek to ensure a sustainable future for Bristol, North Somerset and South Gloucestershire.

Consultation and Scrutiny Input:

The internal and external parties referred to in the previous cabinet report have continued and will be the subject of ongoing consultation.

Other Options considered:

Other options considered again remain in line with the previous Cabinet Report

Risk management / assessment:

The key risks on the Schemes remain those detailed in the previous Cabinet Report. The Key risk attached to the current proposal is the funding of the cost of delaying work on the programme for 2012/13 and beyond in the event that the BRT programme is not granted full approval by the Department of Transport in December 2012.

FIGURE 1							
The risks associated with the implementation of the <i>decision</i> :							
No.	RISK Threat to achievement of the key objectives of the report	INHERENT RISK		RISK CONTROL MEASURES Mitigation (ie controls) and Evaluation (ie effectiveness of mitigation).	CURRENT RISK		RISK OWNER
		(Before controls)			(After controls)		
		Impact	Probability		Impact	Probability	
1		High	Medium		High	Low	

FIGURE 2							
The risks associated with <u>not</u> implementing the (<i>subject</i>) decision:							
No.	RISK Threat to achievement of the key objectives of the report	INHERENT RISK		RISK CONTROL MEASURES Mitigation (ie controls) and Evaluation (ie effectiveness of mitigation).	CURRENT RISK		RISK OWNER
		(Before controls)			(After controls)		
		Impact	Probability		Impact	Probability	
1		High	High		High	Medium	

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 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.

Public Sector Equality Issues

As reported previously in 21st July Cabinet report – see Appendix 1

Environmental checklist / eco impact assessment

As reported previously in 21st July Cabinet report. – see Appendix 2

Resource and legal implications:

Finance

a. Financial (revenue) implications:

Economic appraisal previously undertaken indicated that fares revenue should as a minimum equate to the operating costs of providing the rapid transit services. The authorities do not propose to own and operate the rapid transit service, and will engage with private operators as part of the finalisation of the operating framework for the rapid transit network.

b. Financial (capital) implications:

Development costs on the programme must be funded by the Authorities without any DfT grant support. BCC needs to fund feasibility costs of £ 5.65 m in respect of 2012/13 expenditure as set out in the body of the report. An allocation of £1 m has already been made from LTP grant monies. A further allocation from the Bristol's future Package is therefore required to progress the schemes to full approval.

**Advice given by
Date**

Peter Barralett, Finance Team Manager, Major Projects
6 September 2012

c. Legal implications:

Ashton Vale to Temple Meads and City Centre Rapid Transit Scheme

Cabinet received advice on the legal aspects of the above scheme in the report dated 21 July 2011. To recap, the proposed scheme is subject to a Transport and Works Act Order (TWAo), jointly promoted by the City Council and North Somerset Council as the scheme crosses the authorities' boundaries. A TWAo authorises guided transport schemes, and can confer the range of powers needed to put such a scheme into practice. Other elements of the required works are to be secured through permitted development powers and other powers. The scheme was designated with 'Programme Entry' (approval in principle) funding allocation by the DfT in December 2011 through the Best and Final Bid (BAFB) funding process. Following the statutory TWAo objection period, the proposed scheme received objections and other representations culminating in a public inquiry which sat from 22 May to 4 July 2012. The Inspector forecast his completion (and submission to DfT) of his report (along with other related reports) for the beginning of November 2012. It is anticipated that, in line with Transport and Works Act Guidance, the Order may be granted by the end of May 2013, but this is subject to Secretary of State decisions.

North Fringe to Hengrove Package and South Bristol Link

As with the Ashton Vale scheme, Cabinet has received legal advice on these projects. Both schemes were designated with 'Programme Entry' (approval in principle) funding allocation by the DfT in December 2011 through the Best and Final Bid (BAFB) funding process. Further promotion and full funding approval from the DfT, of the schemes will be subject to all requisite statutory consents, licences and permissions. These may include Compulsory Purchase, obtaining necessary planning permissions, marine licenses, flood defence consents, harbour revision orders and possibly development consent orders (which are similar in scope to TWAos). Many of these will entail environmental impact assessments and may culminate in public inquiry. Procurement rules will also need to be adhered to as required. With regards the joint working relationships between the City Council and adjacent authorities, these are to be governed by the Joint Working and Promotion Agreements.

Legal advice provided by: P Malarby, Senior Solicitor
Date: 6 September 2012

d. Land / property implications:

As reported previously

Advice given by N/A

e. Human resources implications:

Not applicable- there are no personnel issues arising from the this report

Advice given by N/A

Appendices:

Appendix 1 – Equality Impact Assessments

Appendix 2 - Eco Impact Assessments

Access to information (background papers):

Cabinet report 21 July 2011

www.travelplus.org.uk and <http://www.westofengland.org/>– for all information and background documents relating to the three schemes.

BRISTOL CITY COUNCIL

Ashton Vale to Temple Meads and Bristol City Centre Rapid Transit

Equality Impact Assessment – Part One - Screening

Part one of an EqIA – the screening – should be carried out at the planning and development stage of a policy, project, service, contract or strategy. This form should be used in conjunction with the guidance and as the first part of a full EqIA.

Name of policy, project, service, contract or strategy being assessed	Ashton Vale to Temple Meads and Bristol City Centre Rapid Transit
Directorate and Service	City Development
Names and roles of officers completing the assessment	Bob Fowler, Major Transport (AVTM Senior Responsible Owner)
Main contact telephone number	(0117) 603 6579
Date	Completed - 19th October 2009 Reviewed - 15 th June 2011

1. Identify the aims of the policy, project, service, contract or strategy and how it is implemented

	Key Questions	Notes / Answers	Any actions needed? By whom?
1.1	Is this a new policy, project, service, contract or strategy or a review of an existing one?	New project/service – new rapid transit services from North Somerset and Long Ashton Park and Ride to Bristol Temple Meads and the City Centre with a parallel pedestrian link and cyclising facility between Long Ashton Park and Ride and the Museum of Bristol.	
1.2	What is the main purpose of the policy, project, service, contract or strategy?	Introduction of new rapid transit public transport services from 2015 / 2016.	
1.3	What are the main activities of the policy, project, service, contract or strategy?	<p>Project development stage:</p> <ul style="list-style-type: none"> • Preparation and submission of planning applications and associated consents. • Procurement / tendering of construction and operating companies. • Monitoring construction contract. <p>Implementation stage:</p> <ul style="list-style-type: none"> • Provision of rapid transit public transport services 	

1.4	Who are the main beneficiaries? Whose needs is it designed to meet?	Implementation stage: <ul style="list-style-type: none"> • General public, public transport users and pedestrians / cyclists. 	
1.5	Which staff carry out the policy, project, service, contract or strategy?	Project development stage: <ul style="list-style-type: none"> • Transport projects staff Implementation stage: <ul style="list-style-type: none"> • Services will be run by private operators. • Traffic management will be involved in monitoring usage of the bus way. • Potentially revenue protection and maintenance staff. 	
1.6	Are there areas of the policy or function that could be governed by an officer's judgement? e.g. home visits "where appropriate". If so, is there guidance on how to exercise this to prevent any possible bias/prejudice creeping in?	Yes Elements of the project / service rely on an officer's judgement, however key decisions are subject to members (Cabinet approval) and Department for Transport decisions.	
1.7	Is the Council working in Partnership with other organisations to implement this policy or function?	Yes. The project is a sub-regional transport project established through the West of England Partnership Office. The project is	

	<p>Should this be taken into consideration? e.g. Agree equalities monitoring categories</p> <p>Should the partnership arrangements have an EqIA?</p>	<p>jointly promoted and funded by BCC and North Somerset Council.</p>	
1.8	<p>Taking the six strands of equalities, do you have any initial thoughts that any of the six equalities strands have particular needs relevant to the policy or function?</p> <p>Or is there anything in the policy, project, service, contract or strategy that you can think of at this stage that could discriminate or disadvantage any groups of people? ie.</p>	<p>General points.</p> <p>All existing BCC policies will apply to the new rapid transit services.</p> <p>New infrastructure to follow accessibility legislation and be fully compliant and in line with the Equality Act 2010 (previously known as the DDA)</p> <p>Concessionary fare scheme will apply to services.</p> <p>Ongoing engagement with representative groups to be undertaken throughout scheme development process.</p> <p>All Groups</p> <p>Alternative bus routes could be affected which could mean less choice for individuals.</p> <p>As the fares in Bristol are high this could have an effect on individuals from under-represented groups that may be on a low</p>	

		income.	
	Gender (include Transgender)	<p>See all groups</p> <p>No specific response received to date from the Women's Forum.</p>	
	Disability	<p>See all groups</p> <p>Will there be enough provision for wheelchair users or will the numbers be restricted.</p> <p>Will there be level access or will it be ramped, as there are current issues around drivers refusing wheelchair users access even though the spaces are available.</p> <p>BSL Forum would like a clear communication strategy to be considered, using not just audio announcements but also by using visual announcement systems so that the Deaf can be made aware if for example there are problems with the transit, timings and for other notification purposes.</p> <p>BSL forum would like basic deaf awareness training made available for all transit staff</p> <p>BSL Forum would request that all drivers have visual maps of all stops so that Deaf</p>	

		<p>customers can point the location they want to get off.</p> <p>BSL Forum have requested that consideration is given to make sure that the bus transit and transit stops are well-lit at night so that Deaf people are still able to communicate with their friends.</p> <p>BPAC would ask that consideration is given with reference to disability / equalities training and that it is made available for all front line staff.</p> <p>BPAC asked if the routes to be established are along fair socio-economic determinants as well as by other influencing factors, which means that routes do not avoid deprived sections of the population.</p> <p>See all groups</p> <p>Many older people with mobility difficulties continue to be discouraged from using Bristol's buses for fear that they will not be able to get to a seat before the bus moves off.</p> <p>Concern raised by BOPF as they felt that the 'Rapid transit' may imply fewer stops, which in turn would mean that older people</p>	
	Age		

	<p>Race</p> <p>Sexual Orientation</p> <p>Faith / Belief</p> <p>Do any other specific groups have particular needs relevant to the policy, project, service, contract or strategy?</p>	<p>would have to travel further to get to them and that the off-road routing would mean that the stops created may be less convenient for older users. Other than park and riders, older people felt that it was difficult to see how they would be able to access this system conveniently.</p> <p>See all groups No specific response received to date from the Race Forum.</p> <p>See all groups No specific response received to date from the LGB Forum</p> <p>See all groups No specific response received to date from the Faith Forum</p> <p>See all groups</p>	
1.9	<p>Did you use any data to inform your initial thoughts above?</p> <p>What data do you already have?</p>	<p>The scheme is derived from the 2005 Joint Local Transport Plan (JLTP), which assessed the current, and forecast transport needs for the sub-region and identified the</p>	

		<p>rapid transit scheme as part of the solution for those issues.</p> <p>The JLTP was based on consultation and analysis of user needs and demands for the transport system this included information about existing public transport services and equalities data as well as social inclusion and accessibility data (amongst others).</p>	
1.10	<p>Are there gaps in the data that require you to do further work? What are these gaps?</p>	<p>As the project progresses further feedback / involvement to help inform the design of the scheme / proposals will be needed from equalities stakeholders / groups.</p>	

If the result of the screening process is that there is the potential for a significant impact on any equality group or if any equality group has significantly different needs, then a full equality impact assessment must be carried out. If you are unsure please seek advice from a directorate or corporate equalities officer.

Additional comments / recommendations

The draft screening Equalities Impact Assessment for the Ashton Vale to Temple Meads and Bristol City Centre Rapid Transit – Preparation of Major Scheme Business Case has been signed off at this stage as it is being presented to Cabinet in July 2011.

Recommendations

Although there has been some equalities stakeholder involvement previously through a consultation process further equalities work with stakeholders will still need to be progressed as the project moves forward and a full equalities impact assessment will need to be completed.

As this project links into other major transport schemes in the Joint Local Transport Plan (JLTP) attention will need to be given to the following key projects so that issues / concerns that overlap are identified and considered.

- South Bristol Link
- Cycling City
- North Fringe to Hengrove Package

The signing of this screening form has been agreed on the basis of the above recommendation.

Signed: Bob Fowler

Manager Major Projects - Team 1

Date: 5th July 2011

Signed: Jane Hamill

Directorate Equalities Adviser:

Date: 5th July 2011

BRISTOL CITY COUNCIL
Equality Impact Assessment – Part One - Screening

Part one of an EqIA – the screening – should be carried out at the planning and development stage of a policy, project, service, contract or strategy. This form should be used in conjunction with the guidance and as the first part of a full EqIA.

Name of policy, project, service, contract or strategy being assessed	South Bristol Link – Preparation of Major Scheme Business Case
Directorate and Service	City Development – Major Projects
Names and roles of officers completing the assessment	Mike Sweet (Project Manager)
Main contact telephone number	0117 903 6707
Date	4 th March 2010

South Bristol Link

Project summary

The West of England sub-region is promoting a transport strategy that includes the South Bristol Link (SBL). The scheme comprises a single carriageway road, rapid transit and adjacent cycling and pedestrian route. At its northern end the rapid transit links with the Ashton Vale-Temple Meads Rapid Transit; at its southern end, near the proposed new South Bristol Community Hospital, it links with the planned North Fringe - Hengrove rapid transit route.

The local objectives of the scheme are:

- To facilitate regeneration and growth in South Bristol;
 - To reduce congestion in South Bristol and adjacent areas of North Somerset;
 - To improve accessibility from South Bristol to the city centre and to strategic transport links, including the trunk road network and Bristol International Airport [BIA].

1. Identify the aims of the policy, project, service, contract or strategy and how it is implemented

	Key Questions	Notes / Answers	Any actions needed? By whom?
1.1	Is this a new policy, project, service, contract or strategy or a review of an existing one?	New project / service	
1.2	What is the main purpose of the policy, project, service, contract or strategy?	<p>To facilitate regeneration and growth in South Bristol.</p> <p>To reduce congestion in South Bristol and adjacent areas of North Somerset.</p> <p>To improve accessibility from South Bristol to the city centre and to strategic transport links, including the trunk road network and Bristol International Airport [BIA].</p>	
1.3	What are the main activities of the policy, project, service, contract or strategy?	<p>To develop a major scheme business case, for submission to the Department for Transport at the end of March 2010 for funding.</p> <p>For potential development, design and procurement of the scheme between 2014/15 and 2016/17.</p>	

1.4	Who are the main beneficiaries? Whose needs is it designed to meet?	People, businesses and employees in South Bristol	
1.5	Which staff carry out the policy, project, service, contract or strategy?	Combined staff of West of England partnership, Bristol City Council and North Somerset Council Transport projects and associated teams during development.	
1.6	Are there areas of the policy or function that could be governed by an officer's judgement? eg. home visits "where appropriate". If so, is there guidance on how to exercise this to prevent any possible bias/prejudice creeping in?	Yes Elements of the project / service rely on an officer's judgement, however key decisions are subject to members (Cabinet approval) and Department for Transport decisions. There will also be extensive public and stakeholder engagement as part of the planning application process.	Planning applications will require more detailed assessment of scheme's impact on different groups in the community.
1.7	Is the Council working in Partnership with other organisations to implement this policy or function? Should this be taken into consideration? eg. Agree equalities	Yes The project is a sub-regional transport project established through the West of England Partnership Office.	

	<p>monitoring categories</p> <p>Should the partnership arrangements have an EqIA?</p>	<p>The project is jointly promoted and funded by BCC and North Somerset Council.</p>	
1.8	<p>Taking the six strands of equalities, do you have any initial thoughts that any of the six equalities strands have particular needs relevant to the policy or function?</p> <p>Or is there anything in the policy, project, service, contract or strategy that you can think of at this stage that could discriminate or disadvantage any groups of people? ie.</p>	<p>This project is the first stage in preparing a business case to apply for funding to achieve a transport improvements for Bristol.</p> <p>This screening EQIA links into other major transport schemes in the Joint Local Transport Plan (JLTP), which include key projects such as the following:</p> <ul style="list-style-type: none"> • North Fringe- Hengrove Package • Cycling City • Ashton Vale to Temple Meads Rapid Transit. <p>The above key projects are either in the process of or will need to complete an EQIA.</p> <p>It is recognised that some equality groups may have specific concerns / issues which will be established in detail as the project progresses.</p> <p>Ongoing engagement with equalities representatives to be undertaken throughout</p>	

	<p>Gender (include Transgender) Disability Age Race Sexual Orientation Faith/Belief</p> <p>Do any other specific groups have particular needs relevant to the policy, project, service, contract or strategy?</p>	<p>the scheme development process.</p> <p>Some of the area's of concern will be:</p> <ul style="list-style-type: none"> • Disability groups request that new infrastructure is fully DDA compliant and that service delivery from Providers is regulated and appropriate enforcement powers are considered. • Older people are concerned as to whether the concessionary fare scheme will apply to the new services. • As the fares in Bristol are already high Equality groups on a low income are concerned that the cost of travel will increase. • The presence of new infrastructure can inhibit or add risk, real or perceived, to existing patterns of movement • Request that the project monitors the services being provided as the new routes could effect other bus routes, which could then mean less choice for vulnerable individuals. 	
1.9	Did you use any data to inform your	The scheme is derived from the 2005 Joint	

	<p>initial thoughts above? What data do you already have?</p>	<p>Local Transport Plan (JLTP) and Greater Bristol Strategic Transport Study (2006).</p> <p>These assessed the current and forecast transport needs for the sub-region and identified the rapid transit scheme as part of the solution for those issues.</p> <p>The JLTP was based on consultation and analysis of user needs and demands for the transport system this included information about existing public transport services and equalities data as well as social inclusion and accessibility data (amongst others).</p>	
1.10	<p>Are there gaps in the data that require you to do further work? What are these gaps?</p>	<p>Further consultation with representatives from equality groups is needed to help inform the more detailed design of the scheme.</p>	<p>Engage with equalities groups in developing scheme details.</p>

If the result of the screening process is that there is the potential for a significant impact on any equality group or if any equality group has significantly different needs, then a full equality impact assessment must be carried out. If you are unsure please seek advice from a directorate or corporate equalities officer.

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Additional comments / recommendations

The draft screening Equalities Impact Assessment for the South Bristol Link – Preparation of Major Scheme Business Case has been signed off at this stage as it is being presented to Cabinet in March 2010.

Recommendations

Further equalities work with stakeholders will need to be progressed as the project moves forward.

As this project links into other major transport schemes in the Joint Local Transport Plan (JLTP) attention will need to be given to the following key projects so that issues / concerns that overlap are identified and considered.

- North Fringe- Hengrove link
- Cycling City
- Ashton Vale to Temple Meads Rapid Transit.

The signing of this screening form has been agreed on the basis of the above recommendation.

Signed: Bob Fowler

Service Manager

Date: 8th March 2010

Signed: Jane Hamill

Directorate Equalities Adviser

Date: 8th March 2010

Appendix 2

Eco Impact Checklist

Title of report: Ashton Vale to Temple Meads and Bristol City Centre Rapid Transit				
Report author: Carolyn Francis				
Anticipated date of key decision:				
Summary of proposals:				
Will the proposal impact on...	Yes/ No	+ive or -ive	If yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	No		In the long term, the scheme itself is predicted to result in CO ₂ benefits generated through modal shift. .	High performance, low emission vehicles to be used. Use of alternative fuels is being explored.
	Yes	-ive	In the short term, construction will require use of energy and material resource	Sea/river transport of materials to site will be used where practicable to reduce emissions compared to use of HGVs. Scope for recycling of materials, e.g. black top recycling during road re-alignments
Bristol's vulnerability to the effects of climate change?	Yes	Neutral overall	In the short to medium term, the scheme will not increase the risk of flooding and is considered to provide some flood alleviation benefit to local areas.	Much of the scheme has a good level of flood protection to 1:100 year flood elevation between Aston Vale Park and Ride and Ashton Avenue Bridge and in the city centre.
			Avon Crescent, Cumberland Road and Cumberland Road Bridge underpass are vulnerable to tidal flooding.	At Avon Crescent and Cumberland Road, the scheme improves the level of protection from annual to 1:5 years currently and provides further protection to

			<p>In the long term:</p> <ul style="list-style-type: none"> - sections of the scheme are located in the flood plain and may be at risk to flooding without additional protection as no part is higher than approximately 10m above sea level 	<p>1:200 years, taking account of sea level rise to year 2070.</p> <p>Alleviation of flooding at Cumberland Road Bridge Underpass is provided by a trough with raised edges which will improve the current level of protection against flooding through the underpass and provide the potential for further protection to 1:200 years, taking account of sea level rise to year 2070.</p> <p>In the city centre, as no additional impermeable area is proposed, drainage is to the existing city centre network.</p> <p>Elsewhere, sustainable drainage works include attenuation ponds to restrict discharge rates to current levels before outfalling to existing watercourses, and filter drains and grass swales with discharge to groundwater. The design will include allowances for increased storm intensity and depth expected from climate change.</p>
Consumption of non-renewable resources?	Yes	-ve	<p>In the short-term, there will be a requirement for fossil fuels and other non-renewable materials & products for the construction of infrastructure & vehicle provision.</p>	<p>Consider environmental performance of design and materials, e.g. procurement of sustainable products, product life cycle analysis.</p>

		+ve	In the long term, it is anticipated that the modal shift from the private car to public transport should reduce the consumption of fossil fuels for the movement of the same number of travellers, although this is not quantifiable at this stage.	The environmental performance of the construction contractor, including accreditation to ISO14001 will be considered during the tendering process.
Production, recycling or disposal of waste	Yes	-ve	In the short term, waste will be generated from the demolition & construction works.	<p>Construction contractors will be legally obliged to prepare a Site Waste Management Plan (SWMP) for projects over £300k, which detail how waste will be minimised, and recycling promoted.</p> <p>Secondary aggregates and recycled materials should be prioritised for usage in construction.</p> <p>A Code of Construction Practice (CoCP) has been drafted in consultation with the relevant authorities, and would be included in the construction contract. The CoCP includes guidelines for the handling and disposal of contaminated materials and other waste streams generated.</p> <p>The Construction Environmental Management Plan (CEMP) and Materials Management Plan (MMP) will also describe sustainable construction</p>

				requirements, including waste minimisation and recycling.
The appearance of the city?	Yes	-ve	Effect on urban edge with impact on open field at Ashton Gate.	Planting to provide visual screening and landscape integration.
		-ve	Visual impact at properties in Ashton Vale	Planting to provide visual screening
		-ve	Impact of new large scale railway over-bridge at Winterstoke Road.	Quality of design and appearance of the bridge structure.
		Neutral	Route alongside Brunel Way well screened.	Appropriate planting.
		+ve	Ashton Gate Swing Bridge.	Refurbishment of historic structure.
		-ve	New signalised junction at Avon Crescent	None.
		-ve	Impact on character of Cumberland Basin through introduction of new structures	Design of busway in character using appropriate materials, retention of stone walls and replacement of important railings.
		-ve	Effects on heritage railway and character of dockside	Relocation of railway lines and other railway features and use of materials in keeping with existing character.
		+ve	Prince Street Bridge	Removal of existing signage and other street clutter
Pollution to land, water, or air?	Yes	-ve	Demolition & construction works may cause accidental pollution to land.	Contractors performance in this area will be considered during the tendering process.
		-ve	Demolition & construction works may cause accidental	The selected contractor(s) must work in accordance with

			contamination of local watercourses and surface water drains.	<p>guidance issued in all relevant Environment Agency Pollution Prevention Guidelines (PPGs).</p> <p>Implementation of best practice site investigation ground protection measures.</p> <p>Implementation of MMP and CEMP.</p> <p>The CEMP will specify measures to reduce pollution risk – for example, by specifying that waste will be stored in designated areas and isolated from surface drains through appropriate bunding if required.</p> <p>The CEMP will include measures to control dust and emissions during the works.</p>
	-ve		Demolition and construction works will produce dust and combustion emissions from plant.	
	-ive / +ive		On opening of the scheme there will be improvements in local air quality in some sections and deterioration in others, but overall the balance in changes in air quality is not considered significant.	
	-ive		Demolition and construction works likely to cause major noise impact for properties in close proximity to the scheme.	CEMP will include measures to control noise.
	-ive		In the longer term, there will be a slight increase in noise due to general increase in	

		-ive	traffic levels. Major noise increase for small number of dwellings by Ashton Vale and Landmark Court and some properties on Cumberland Road by the Floating Harbour.	2m high acoustic barrier at Ashton Vale. The back of the houses on Cumberland Road are shielded from noise attenuation due to their elevated position and walls to end of some gardens. No mitigation possible for Landmark Court due to proximity of the scheme.
Wildlife and habitats?	Yes	-ve	Scenarios I, II, and III – loss of 1.1ha and fragmentation of Bower Ashton Mineral Railway SNCI.	CEMP to minimise damage to habitats, disturbance to fauna and accidental spillages.
		-ve	Scenario II – loss of 0.55ha of Ashton Vale Fields SNCI. Loss of foraging / commuting lines for bats.	Destructive searches and translocation of reptiles
		-ve	All scenarios – potential construction impacts from disturbance, dust, and in the event of accidental spillages.	New linear planting along sections of the route. Potential for habitat enhancement along Colliter’s Brook.
		-ve	All scenarios – loss of small areas of Biodiversity Action Plan priority habitat such as marshy grassland.	Improved management of key remaining habitats.
		+ve	Protected species in the vicinity of the scheme: bats, otter, water vole, nesting birds and reptiles. Mitigation measures offer scope for enhancements.	Protected species mitigation: replace hedgerows to maintain bats flight paths, remove one bat roost, lighting to reduce disturbance to bats; mammal ledges under bridges.
Consulted with:				

Summary of impacts and Mitigation

The benefits of the scheme are...

- Improve journey times and reliability from the south west of the sub-region to Bristol City Centre and to Bristol Temple Meads Railway Station
- Opportunity to improve connectivity with Bristol International Airport
- Provision of a high quality, more sustainable choice of travel by rapid transit, cycling or walking
- Shift of journeys to more environmentally sustainable transport modes
- Shift of journeys to a safer transport mode
- Improving physical activity and quality of life by encouraging walking and cycling
- Better use of an under-used existing transport corridor and retaining road network capacity
- Refurbishment of historic Ashton Gate Swing Bridge and improvement of appearance of Prince Street Bridge

The significant adverse impacts of this proposal are....

- Adverse impacts on the appearance of the city, the heritage railway and dockside
- Slight changes in local air quality, both positive and negative, along the route
- Slight increase in noise due to general increase in traffic, and major impacts at two locations Ashton Vale and the Floating Harbour
- Construction-related nuisances to people due to noise and air quality
- Construction-related impacts on habitats, flora, and fauna, including small areas of land-take, severance of habitats of local/Country value, disturbance to protected species
- Risk of pollution during construction
- Consumption of raw materials during construction
- Generation of wastes during construction
- No significant impact on climate changing gases
- Neutral impact on flood risk after mitigation


The proposals include the following measures to mitigate the impacts ...

- Mitigation to control the nuisances and risk of accidents during construction through implementation of a Construction Environmental Management Plan
- Mitigation to reduce the vulnerability of transport infrastructure from flooding under present conditions and in the face of increased flooding due to climate change
- Mitigation to address changes in the appearance of the city
- Mitigation to address the risk of land, air, water, and noise pollution
- Mitigation to address impact on protection sites, habitats, and protected species

The net effects of the proposals are positive.

The proposal provides a more sustainable mode of transport, with the overall impact dependent on levels of usage

Checklist completed by:

Name:	Tim Morris
Dept.:	CD – Major Projects
Extension:	9037122
Date:	22 June 2011
Verified by Sustainable City Group	Steve Ransom 

Eco Impact Checklist

Title of report: Bristol NFH Package - Environmental Assessment				
Report author: N Rowson (Atkins)				
Anticipated date of key decision: 21 July 2011				
Summary of proposals: Recommendation that Cabinet endorse the proposals for the North Fringe to Hengrove Package, and approve the submission to the Department for Transport of a Best and Final Bid for Programme Entry. This Eco-Impact Assessment updates the environmental impact summary for the project submitted for the MSBC submission in March 2010.				
Will the proposal impact on...	Yes/No	+ive or -ive	If yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	Yes	<div>+ive</div> <div>-ive</div> <div>-ive</div>	<p>In the long-term, it is anticipated that the North Fringe to Hengrove BRT should reduce emissions assuming there will be a modal shift from the private car to public transport. This benefit will be reduced by comparison to the MSBC due to the omission of the M32 P+R</p> <p>In the short-term, emissions from the use of energy and materials during the physical construction /infrastructure development works.</p> <p>Once delivered, Rapid Transit Vehicles will emit climate changing gases during operation. There may be a slight increase in this over MSBC due to omission of dedicated bus lanes</p>	<p>The construction of the Rapid Transit Scheme should aim to achieve CEEQUAL (Civil Engineering Environmental Quality Assessment) "Very Good" standard as a minimum.</p> <p>Energy efficient, low emission vehicles to be used.</p>
Bristol's vulnerability to the effects of climate change?	Yes	-ive	In the long term, the Rapid Transit Scheme may;	

		-ive	<p>- Be at risk of flooding & increase water runoff by creating more impermeable surfaces or removing trees.</p> <p>- Not be robust enough to cope with extreme temperature variations, or violent storms.</p> <p>Removal of dedicated BRT lanes significantly reduces the additional, new hard surfacing and as such will lessen the –ive impacts.</p>	<p>Full flood risk assessment and inclusion of all flood and water anagement measures (SUDS) within the scheme. Will require approval of the Environment Agency.</p> <p>Sites have been screened by Planning Officers and they have determined that an Environmental Impact Assessment is required.</p>
Consumption of non-renewable resources?		<div>-ive</div> <div>+ive</div>	<p>In the short-term, there will be a requirement for fossil fuels and other non-renewable materials & products for the construction of infrastructure & vehicle provision. But this will be reduced relative to the MSBC due to ommission of dedicated bus lanes, omission of M32 P+R and reduction in scheme scope</p> <p>In the long term, it is anticipated that the modal shift from the private car to public transport should reduce the consumption of fossil fuels, although this is not quantifiable at this stage.</p>	<p>Consider environmental performance of design and materials.</p> <p>The environmental performance of the construction contractor, including accreditation to ISO14001 will be considered during the tendering process.</p>
Production, recycling or disposal of waste	Yes	-ive	In the short term, waste will arise from demolition & construction works.	Construction contractors will be legally obliged to prepare site waste management plans, which detail how waste will be minimised, and recycling promoted.

The appearance of the city?	Yes	+/-ive	The construction of the BRT infrastructure will impact on the appearance of the city e.g.	A Full Environmental Impact Assessment of all effects and appropriate landscape mitigation has been commissioned and is being developed in consultation with BCC Urban Design team.
		+ive	Highway improvements such as the upgrading of surfaces and street furniture such as bus stops are likely to improve local visual impact.	The identification of opportunities for street scene improvements in areas adjoining the scheme. hoarding in urban areas; Early identification of design palette for street furniture etc; and, low level lighting and cut off lighting.
		-/+ive	Earthworks, road widening and limited new sections of bus way are likely to cause some adverse visual impact, particularly through open areas of the city, during construction but overall streetscape enhancements will be positive.	The retention of vegetation and mitigation planting where appropriate.
		-/+ive	Proposal for new bridge over New Cut within Conservation Area / potential alterations to Prince Street Bridge (GII LB)	Agreeing all works to listed structures with English Heritage & sensitive treatment in line with character of the structure and local area. Involvement of CABI or local equivalent in assessment of design quality.
Pollution to land, water, or air?	yes	+ive	An improved sustainable transport system should reduce the level of traffic on Bristol's roads and therefore local air pollutants such as PM10 and NOx	
		-ive	Demolition & construction works may	Contractors performance in this area will be

		-ive	cause accidental pollution to land.	considered during the tendering process.
		-ive	Demolition & construction works may cause accidental contamination of local watercourses and surface water drains.	In addition, the chosen contractor(s) must work in accordance with guidance issued in all relevant Environment Agency Pollution Prevention Guidelines (PPGs).
		-ive	Demolition & construction may produce localised emissions & dust.	
		-ive	Noise will be created during construction works & upon completion.	Contractors to use best practicable means to control noise
		-ive	Light pollution may cause a nuisance to nearby residents.	Low level lighting & cut off lighting to be installed.

Wildlife and habitats?	Yes	-/+ive	The creation of new infrastructure / developments may impact on flora and fauna.	<p>Works to minimise construction phase disturbance and disruption.</p> <p>Relocation/Translocation of any protected species</p> <p>Habitat creation/improvement, creation and repair of habitats and corridors.</p> <p>Retention of existing vegetation. Replanting of any vegetation removed during construction</p>
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Consulted with:

Consultations during the MSBC and EoI phases included Natural England, Environment Agency, English Heritage Bristol City Archaeologist and wildlife groups.

A further round of consultations will be held with Statutory and local environmental bodies during the development of the scheme design and Environmental Impact Assessment.

Summary of impacts and Mitigation

The significant impacts of this proposal are....

- Habitat loss in Little Stoke/Harry Stoke area of new build could result in a significant impact (Ecological).

- Impacts on statutory and non statutory designated sites – unlikely to be significant if mitigated correctly (Ecological).
- Bridge over New Cut – unlikely to have significant impacts if designed and built correctly and does not impact on listed harbour walls(Ecological/Heritage).

The proposals are likely to have a minor or negligible impact on cultural heritage. There would be no change in relation to Stoke Park. The impact on below ground archaeological remains and the setting of Listed Buildings and Conservation Areas within the City Centre and South Bristol is likely to be negligible or slight (East and West Street within Bedminster are likely to be areas of greater potential archaeological impact due to shallow depth of deposits in this area).

The proposal for the construction over the New Cut from Bathurst Basin could have a moderate / large negative impact on buried archaeological remains, historic and listed structures, setting of listed buildings and the character of the City Docks Conservation Area. Proposals to alter / strengthen Prince Street Bridge (Grade II Listed Building) could also have implications for the historic fabric and appearance of the structure.

The proposals include the following measures to mitigate the impacts ...

Primary mitigation of the South Bristol Core Route Option should include designs appropriate to the character of the area.


Mitigation for the potential impact on buried archaeological remains will be subject to further evaluation in areas where deposits may be particularly vulnerable.

The net effects of the proposals on cultural heritage are likely to be negligible or slight (with the exception of the proposed New Cut bridge)

Omission of dedicated BRT lanes and the M32 P+R will significantly reduce overall adverse impacts by comparison with the MSBC scheme

The net effects of the proposals are positive.

Checklist completed by:

Name:	Darren Pacey
Dept.:	CD – Major Projects
Extension:	07827-859739
Date:	22 June 2011
Verified by Sustainable City Group	Steve Ransom 

Eco Impact Checklist

100 Impact Checklist				
Title of report: South Bristol Link – Environmental Assessment				
Report author: Nick Rowson (Atkins)				
Anticipated date of key decision: 21 July 2011				
Summary of proposals: Recommendation that Cabinet endorse the proposals for the South Bristol Link and approve the submission to the Department for Transport of a Best and Final Bid for Programme Entry. This Eco-Impact Assessment updates the environmental impact summary for the project submitted for the MSBC submission in March 2010.				
Will the proposal impact on...	Yes/No	+ive or -ive	If yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	Yes	-ive	In the short-term, Greenhouse Gas emissions during construction of the Scheme would be expected to be increased for the immediate locality.	Rapid Transit vehicles to be high specification, low emission vehicles. It is expected that the Scheme would relieve congestion at other locations within the Bristol network, resulting in an overall reduction in Greenhouse Gas emissions from idling vehicles for example within the Bristol area.
		-ive	At Operation, private vehicles and Rapid Transit Vehicles would emit Greenhouse Gasses.	The construction of the Rapid Transit Scheme should aim to achieve CEEQUAL (Civil Engineering Environmental Quality Assessment) "Very Good" standard as a minimum.
		+ive	On opening, it is anticipated that the South Bristol Link will give a small reduction in Greenhouse Gas emissions, compared with the Do Minimum scenario.	
Bristol's vulnerability to the effects of climate change?	Yes	-ive	Flooding: The Scheme would cross several areas of Environment Agency designated flood zones. Additional hardstanding created by the Scheme and associated increased speeds and quantities of surface water runoff have the potential to exacerbate flooding in these areas, which is likely to become more frequent with a changing climate.	In accordance with PPS25, a Flood Risk Assessment (FRA) will be prepared for the Scheme as part of the EIA and for the approval of the Environment Agency. The aim of this FRA is to identify and assess flood risks from all sources of flooding both to the Scheme and from its development. It would also outline how these risks would be managed at present, and also taking account of climate change over the

			<p>Omission of dedicated BRT lanes over the majority of the scheme will significantly reduce the potential adverse impact of this by comparison to the MSBC scheme.</p> <p>The new rail crossing creates a new opening in the rail embankment which may exacerbate flooding to the north.</p>	<p>lifetime of the development.</p> <p>A Construction environmental Management Plan (CEMP) would be employed during construction detailing the reasonable and precautionary steps to be taken for the prevention of pollution of the water environment and risk of flooding.</p> <p>Sustainable Urban Drainage Systems will be comprehensively implemented for the Scheme (and include pollution control)</p>
Consumption of non-renewable resources?	Yes	<p>-ive</p> <p>+ive</p>	<p>Non-renewable materials such as fossil fuels would be required at the construction stage.</p> <p>At operation, it is anticipated that a modal shift from the private car to public transport associated with the BRT element, as well as reduced congestion on the wider Bristol road network, would result in a reduction in fossil fuel consumption.</p>	<p>A CEMP would be required during construction, to be written in accordance with ISO14001 Environmental Management Systems. A Sustainability Appraisal would also be required for the Scheme. The scheme will maximise the use of reclaimed/re-used aggregates and use eco-friendly materials where appropriate.</p> <p>The environmental performance of the construction contractor, including accreditation to ISO14001 would be considered during the tendering process.</p>
Production, recycling or disposal of waste	Yes	-ive	Waste arising from the construction of the Scheme would be applicable in the short term.	The Scheme would require the production of a Site Waste Management Plan for the construction, which would detail how waste should be minimised and recycling promoted throughout the Scheme construction.
The appearance of the city?	Yes	+ive	Highway improvements such as the upgrading of surfaces and street furniture are likely to improve local	The formal Environmental Impact Assessment to accompany the planning application for the scheme will include a Landscape and Visual Impact

			townscape and visual impact.	Assessment, and would detail appropriate mitigation measures such as screening planting. This will be undertaken in consultation with the BCC Urban Design and Landscape Teams.
Pollution to land, water, or air?	Yes	Unkown	The Scheme is expected to result in a small overall improvement in Local Air Quality (PM ₁₀ and NO ₂) but more detailed studies are needed to confirm the nature and location of local impacts.	A CEMP would be employed during construction, to be written in accordance with ISO14001 Environmental Management Systems. This would incorporate measures to reduce construction impacts of noise, emissions to air, lighting, dust and contamination.
		-ive	The scheme will potentially disturb a number of old and recently closed landfill sites giving rise to direct pollution risk from construction and indirect from the disposal to landfill of the excavated material.	The Contractor's performance in this area would be considered during the tendering process. In addition, the Contractor must work in accordance with guidance issued in all relevant Environment Agency Pollution Prevention Guidelines (PPGs).
		-ive	Demolition & construction works may cause accidental pollution to land.	
		-ive	Demolition & construction works may cause accidental contamination of local watercourses and surface water drains.	
		-ive	Demolition & construction works may produce increased emissions & dust.	
		-ive	Noise would be created during construction works.	
		-ive	Light pollution may cause a Statutory Nuisance to nearby	In order to limit light pollution, all lighting should be directional and light cut-

			residents.	off canopies provided.
Wildlife and habitats?	Yes	-ive	<p>The Scheme would have no direct impact as a result of damage or disturbance for the majority of international and statutory designated sites for nature conservation. However, the Scheme proposals would require land take from the known foraging and commuting grounds of both greater and lesser horseshoe bats, which are primary reasons for the designation of the North Somerset and Mendip Bats SAC. There would be an adverse impact to the non-statutory designations of Colliters Brook Site of Importance for Nature Conservation (SINC) and Ashton Vale Fields SINC which the proposed Scheme runs through and adjacent to. Hedgerows which are categorised as Important under the Hedgerows Regulations 1997 are expected to be affected as a result of the Scheme. There will be a potential adverse impact to the Highridge Common land, in particular to the area now maintained for wildlife interest and to historic hedgerow boundaries</p>	<p>A full Environmental Impact Assessment would be undertaken for the Scheme, in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. This would include an Ecological Impact Assessment, and would detail appropriate mitigation and compensation. This would act to reduce or eliminate potential adverse ecological impacts. Mitigation measures should include an ecological watching brief with works undertaken under appropriate Natural England Protected Species licences which would ensure the minimisation of construction phase disturbance and disruption. Land take would require compensation in the form of suitable habitat creation. The provision of alternative commuting and dispersal corridors such as replanted hedges and hop-overs would also act to reduce the impact to bats.</p> <p>All internationally designated sites within 2km of the Scheme would require an Appropriate Assessment Screening Matrix under the Conservation (Natural Habitats, &c.) Regulations 1994 (As Amended). The matrix would determine the likely impact of the Scheme, identify the necessity for Appropriate Assessment and additional mitigation measures to reduce and/ or eliminate this impact.</p>
Consulted with:				
Summary of impacts and Mitigation				

Work completed to date indicates that the SBL should deliver long term environmental benefits for Bristol's carbon footprint and local air quality, and these outweigh the short term impacts outlined within the Environmental Impact Assessment. This is due to reduced congestion in other locations and the assumption of a modal shift from private vehicle to public transport. More detailed and comprehensive surveys and studies, forming the scope of the EIA study, will be required to confirm these findings.

The proposals include the following measures to reduce the impacts:

- Full Environmental Impact Assessment to be undertaken for the Scheme, in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.
- Mitigation to effect the emission of Climate Changing (Greenhouse) gasses.
- The construction of the Scheme should aim to achieve CEEQUAL (Civil Engineering Environmental Quality Assessment) "Very Good" standard as a minimum.
- The production of a Construction Environmental Management Plan, in accordance with the requirements of ISO14001.
- Mitigation to address Bristol's vulnerability to the effects of Climate Change.
- Mitigation to address the use of raw materials for construction and operation of the Scheme through a Scheme Sustainability Appraisal and the CEMP.
- Energy efficient, low-emission Rapid Transit fleet to be used.
- Mitigation to address changes in the appearance (townscape and visual impact) of the city.
- Mitigation to address the risk of land, air, water, noise and light pollution at the construction and operational stage.
- Mitigation to address impact on nature conservation and biodiversity at the construction and operational stage.

The net effects of the proposals are positive.

Checklist completed by:

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