

# Appendix A. Screening Proforma

Please note this Screening Proforma was completed in 2011 and therefore follows the format of WebTAG Unity 3.17 and uses 2001 Census data.

## ASSESSMENT OF SOCIAL AND DISTRIBUTIONAL IMPACTS (SDIs) OF TRANSPORT INTERVENTIONS

### Proforma for reporting conclusions of first screening stage (Step 0)

*This form is intended for use by scheme promoters to capture the considerations, assessment and conclusions of the first screening stage of the SDI analysis (Step 0). For a full description of Step 0 please see WebTAG guidance units 2.13 and 3.17. These initial screening tests are not intended to be onerous and should require no additional data collection or analysis. At this stage promoters are only expected to carry out a qualitative assessment, based on their professional judgement and that of the technical specialists responsible for undertaking assessment of noise, air quality, safety, security, severance, accessibility, personal affordability and user benefits.*

*In identifying what further screening or analysis is required promoters are encouraged to look how they can use existing analysis and data (e.g. as reported in existing business cases, Local Transport Plans) to meet the requirements of the guidance in a proportionate way. Promoters should also note in the final column if it is not possible to undertake the additional analysis/screening required by guidance by 9<sup>th</sup> September 2011.*

#### **Scheme name: North Fringe to Hengrove (NFH) Package**

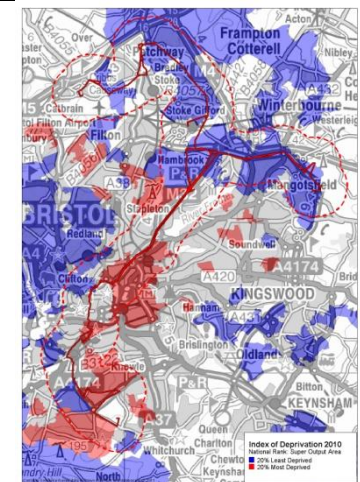
#### **Brief description of scheme**

The package involves a series of complementary measures that facilitate the development of three new rapid transit routes, linking the North Fringe, East Fringe and South Bristol areas via Bristol City Centre. This includes the Stoke Gifford Transport Link to relieve congestion in the North Fringe and major public transport improvements to the M32 and Bristol City Centre.

The scheme runs through areas of deprivation, particularly to the immediate east of the city centre (St Pauls and Old Market) and the south west in Hengrove and Knowle. The scheme will provide direct, fast transport links from these more deprived areas to the rest of the city and to places of employment and training such as Cribbs Causeway, Aztec West Business Park, University of West of England and Emerson's Green Science Park.

#### **Scheme Objectives**

- To support a buoyant economy, improve quality of life for sub-regional residents and improve local and national travel;
- To tackle congestion and therefore the economic, environmental and health damage that are associated with it;
- To encourage the shift to new forms of public transport and realise the associated environmental, climate change, safety and health benefits;
- To enhance the opportunities for regeneration and sustainable growth through the linking of areas of economic and housing expansion; and
- To promote equality of opportunity and security through improved connectivity to education, employment, leisure, health and retail facilities.



<p><b>Impact</b></p> <p><b>(Consider each separately)</b></p>	<p><b>Is social/distributional impact relevant to stated scheme objectives?</b></p> <p><i>(If yes, provide details)</i></p>	<p><b>Could scheme lead to impact on low income and/or vulnerable groups?</b></p> <p><i>(Provide details)</i></p>	<p><b>Can potential negative impacts be eliminated through design or mitigation?</b></p> <p><i>(Provide details)</i></p>	<p><b>Are potential impacts, where presumed, likely to be 'significant and concentrated'?</b></p> <p><i>(Provide details)</i></p>	<p><b>Next steps: what further screening (Step 1 to 3), or full SDI analysis (Step 1 to 5) is necessary and/or proportionate to potential impact?</b></p> <p><i>(Provide rationale for proposal)</i></p>
<p>Air Quality</p>	<p>Yes.</p> <p>Tackling congestion and encouraging modal shift from private car indicates an overall positive outcome in air quality levels.</p>	<p>The air quality assessment for the March 2010 Major Scheme Business Case (MSBC) submission suggested an overall improvement in air quality as travellers switch to more sustainable modes of transport. However pockets of deterioration were also likely in places adjacent to the Stoke Gifford Transport Link and in areas of Hengrove.</p> <p>Sections of the scheme lie within AQMAs; however, the scheme will not cause any new exceedances of the Government's air quality strategy objectives.</p> <p>Poor air quality poses a risk to health, in particular for children under 16. A fifth of the population within a 1km buffer of the scheme are under 16 years old.</p>	<p>Refinements to the scheme's detailed design are on-going. This enables the potential elimination or mitigation of any localised air quality issues.</p>	<p>To date, the revised air quality assessment has not been completed. Hence, whilst it is not specifically known how significant or concentrated such positive or negative impacts are likely to be, consideration of the previous assessment accompanying the March 2010 MSBC highlights only one property experiencing a significant increase in particulate concentrations.</p>	<p>Proceed to Steps 1-3.</p> <p>Need to assess the outputs from the revised air quality assessment to ascertain the distribution of these impacts across income groups in the scheme area.</p> <p>Indices of Deprivation 2010 (IoD) will be used alongside the revised air quality modelling.</p> <p>The revised air quality assessment is due for completion in Autumn 2011 as a result of an updated traffic model as requested by DfT.</p> <p>Proposed timescales for undertaking the SDI appraisal on Air Quality is end of the year (2011).</p>
<p>Noise</p>	<p>Yes.</p>	<p>The noise assessment completed for the March</p>	<p>Refinements to the scheme's detailed design</p>	<p>To date, the updated air quality assessment</p>	<p>Proceed to Steps 1-3.</p>

	<p>Tackling congestion and encouraging modal shift from private car indicates an overall positive outcome in noise levels.</p>	<p>2010 MSBC submission indicated an overall minor/negligible noise impact across the scheme. The exception being in areas around Stoke Gifford, Bradley Stoke Way (as a result of the Stoke Gifford Transport Link) and to a lesser extent Hartcliffe Way and New Cut Bridge. Children are especially affected by noise levels. A fifth of the population along the scheme route are under 16 years old.</p> <p>Just over 60 schools (sensitive receptors) are located within 1 km buffer of the scheme.</p>	<p>are on-going. This enables the potential elimination or mitigation of any localised noise issues, principally by the use of noise barriers either at the side of the route or at the boundary of residential areas.</p>	<p>has not been completed. Hence it is not known how significant or concentrated such positive or negative impacts are likely to be.</p>	<p>Need to assess the outputs from the revised noise assessment to ascertain the distribution of these impacts across income groups in the scheme area.</p> <p>Indices of Deprivation 2010 (IoD) will be used alongside the revised noise modelling.</p> <p>The revised noise assessment is due for completion in Autumn 2011 as a result of an updated traffic model as requested by DfT.</p> <p>Proposed timescales for undertaking the SDI appraisal on Noise is end of the year (2011).</p>
<p>Accidents</p>	<p>Yes.</p> <p>Tackling congestion and encouraging modal shift from private car indicates a reduction in the likely number of road accidents.</p>	<p>The assessment of Personal Injury Accidents (PIAs) completed for the MSBC submission (March 2010) indicates an overall reduction in the number of accidents. These are likely to be associated with a transfer of trips from private car to public transport as well as a redistribution of trips away from the more congested city centre. The scheme is also expected to contribute to</p>	<p>Refinements to the scheme's detailed design are on-going. This enables the potential elimination or mitigation against clusters of accidents.</p>	<p>To date the updated COBA assessment has not been completed. Hence it is not known how significant or concentrated such positive or negative impacts are likely to be.</p>	<p>Proceed to Steps 1-3.</p> <p>Further work is required to examine the existing accident clusters and explore how the updated modelled changes in traffic levels will produce an overall reduction of PIAs. This will be combined with an assessment of the proportions and locations of children, older people and</p>

		<p>improved safety for pedestrians as a result of the priority measures, provision of improved access to bus stops and new and improved pedestrian crossing facilities. Cyclists will also benefit from greater segregation from the general traffic by being able to use new and improved cycle lanes alongside the rapid transit alignments and Stoke Gifford Transport Link.</p> <p>Accident risk is higher for children (especially those living in deprived areas), young adults and older people. The 1km scheme buffer has a higher than average number of under 16s (20% compared to 19% for the City of Bristol) and lower than average proportions of older people (over 70s), 9% compared with 11% for the City of Bristol.</p>			<p>young adults in the scheme area.</p> <p>The SDI appraisal on Accidents will be completed for the 9<sup>th</sup> Sept deadline.</p>
Security	<p>Yes.</p> <p>Promoting equality of opportunity and security through improved connectivity indicates</p>	<p>It is anticipated that the following scheme measures will improve personal security: high design standards for stops, CCTV systems at stops and in</p>	<p>Refinements to the scheme's detailed designs are on-going. This provides an opportunity to gain a better understanding of</p>	<p>Security impacts may be concentrated in certain areas which may pose greater</p>	<p>Proceed to Steps 1 – 3</p> <p>Further work is required to assess the locations of vulnerable users and identify scheme measures</p>

	<p>specific improvements for travellers' personal security.</p>	<p>rapid transit vehicles, passenger information, help points, emergency phones, two way communications between driver and control centre, and good lighting at stops.</p> <p>The location of stops will be selected to enable safe and secure access to stops including dedicated crossing facilities with convenient, well-lit and safe pedestrian links.</p> <p>Provision of improved pedestrian and cycling infrastructure increasing footfall and improving natural surveillance will also be implemented.</p> <p>Older people, people with disabilities and children/young adults are more likely to be affected by personal security issues.</p> <p>Analysis of socio-demographic data indicates that these social groups are not over-represented within the scheme area compared with the averages for the City of Bristol.</p>	<p>any vulnerable groups in the local area, enabling the introduction of new security measures to encourage scheme usage and promote equality of opportunity.</p>	<p>threats to vulnerable users.</p>	<p>that will enhance the security of such users.</p> <p>The SDI appraisal on Security will be completed for the 9<sup>th</sup> Sept deadline.</p>
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Severance	<p>Yes.</p> <p>Severance issues will impact on residents' quality of life and also their levels of connectivity, enabling access to key services and participation in local communities.</p>	<p>The majority of the route follows existing roads, using enhanced on-street infrastructure (i.e. bus lanes and priority at traffic signals). The scheme is designed to promote and encourage walking and cycling through segregated facilities and new crossing points.</p> <p>However, due to the reassignment of traffic, there are some links on the network which will experience significant changes in traffic flows which could increase the level of severance, particularly for children, older people and people with disabilities.</p>	<p>Where a busway is provided, the likely severance effect will be mitigated against by providing parallel pedestrian and cycle facilities, including dedicated crossing points.</p> <p>Significant benefits to pedestrians and cyclists in the city centre through improved streetscape, public realm and provision of significantly enhanced pedestrian and cycle facilities.</p> <p>The ability to integrate the design of the rapid transit proposals within the overall city centre strategy will reduce the likely level of severance.</p>	<p>It is likely that any impacts will be concentrated in particular areas experiencing some worsening of severance as a result of the scheme, through the re-routeing of general traffic.</p>	<p>Proceed to Steps 1-3.</p> <p>Identify links with significant changes (greater than 10%) in traffic flow. Ascertain whether these changes impact on the vulnerable groups identified through the socio-demographic data.</p> <p>The SDI appraisal on Severance will be completed for the 9<sup>th</sup> Sept deadline.</p>
Accessibility	<p>Improving accessibility levels will help link existing and new residents with key services – promoting equal travel opportunities, enabling sustainable growth and encouraging modal shift from private car.</p>	<p>The NFH Package will significantly improve the links between the key activity centres of employment, education and retail with existing and new residential areas.</p> <p>In particular, this will include the improvement in public transport links between areas of deprivation in</p>	<p>Several opportunities arise in the detailed design of the scheme to mitigate against any impacts. These include the full integration of the scheme with the rest of the public transport network. Ensuring all information is fully accessible to all users i.e.</p>	<p>It is likely that any impacts will be concentrated in areas adjacent to the scheme routes.</p>	<p>Proceed to Steps 1-3.</p> <p>Further work to examine any changes to public transport accessibility levels to key services for vulnerable groups.</p> <p>This will make use of an existing Accession model</p>

		Hengrove and South Bristol and job opportunities in the city centre and the North and East Fringes as well as improved links to the University of the West of England and the Science Park at Emerson's Green.	those with disabilities, BMEs.		and socio-demographic data.  The SDI appraisal on Accessibility will be completed for the 9 <sup>th</sup> Sept deadline.
Personal Affordability	Yes.  The fares for rapid transit will use the current public transport fare structures which will help promote equality of opportunity.	The rapid transit price structure will be the same as all other public transport in the area (including concessionary fares).	N/A	No	No further steps required as unlikely to have an impact.



<p>User Benefits</p>	<p>Yes. The benefits gained by users will help improve their quality of life, encourage modal shift from private vehicle and enhance travel opportunities to new key services.</p>	<p>There are user benefits associated with the scheme but these are reported as a net outcome and to date we do not know which groups of people may experience disbenefits (if any) e.g. through longer journey time.  As the area has a number of deprived areas (in the 20% most deprived) it is important to understand the user benefits/disbenefits for these different income groups.</p>	<p>It is difficult to mitigate against issues arising at this stage of the detailed design but this will be reviewed during the on-going design stages of the scheme.</p>	<p>It is likely that any impacts will be concentrated.</p>	<p>Proceed to Steps 1-3.  The revised version of TUBA will be used to re-examine the outputs to gain information on a zonal level which can be matched with socio-demographic boundaries. This will enable an assessment against IoD mapping.  The SDI appraisal on User Benefits will be completed for the 9<sup>th</sup> Sept deadline.</p>
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## Appendix B. Socio-demographic Data

1. Proportion of Children (aged under 16 years) – Census 2011
2. Proportion of Young People - (aged 16-25) – Census 2011
3. Proportion of Young Males – (Aged 16-25) – Census 2011
4. Proportion of Older People (aged 70 and over) – Census 2011
5. Proportion of Black Minority Ethnic Population – Census 2011
6. Proportion of Non-car Households – Census 2011
7. Disability Living Allowance Claimants – Nov 2010
8. Proportion of Job Seekers Allowance Claimants – May 2011
9. Proportion of Women - Census 2011
10. Proportion of Carers- households with dependent children - Census 2011
11. Index of Deprivation – National Rank by Super Output Area - ID 2010
12. Income Deprivation – National Rank - ID 2010

All of the following figures show the 20% most populated Output Areas for each of the vulnerable groups from all Output Areas in England.

