THE MERSEY GATEWAY PROJECT

SOCIO - ECONOMIC IMPACT ASSESSMENT

CHAPTER 20.0

SOCIO - ECONOMIC IMPACT ASSESSMENT

C O N T E N T S

20. SOCIO - ECONOMIC IMPACT ASSESSMENT

20.1 Introduction

20.1.1 This chapter describes the likely significant effects which have the potential to occur as a result of the construction and operation of the Project on social receptors within and surrounding Halton. Social receptors used within the assessment are detailed further in paragraph 20.5.5 and include all human receptors within the study area.

20.1.2 The Project has the potential to have significant beneficial and adverse effects to individuals and groups within the study area through a number of impacts. Some of the resulting effects have the potential to be exacerbated by the fact that Halton has high levels of deprivation compared to the rest of the UK.

20.2 Purpose of the Study

20.2.1 This study was carried out in order to assess the effects of the Project on social receptors within and surrounding the Borough of Halton. The importance of assessing social effects in policy terms is outlined in Table 20.1 by reference to relevant legislation, policy and background information. Although not traditionally formally part of the requirements in EIA legislation, recent government policy and plans have recognised the need to assess potential impacts in a more holistic manner, using sustainability goals and aspirations. Therefore, the inclusion of social and economic factors is now seen as an important method of assessing the implications of proposed projects.

20.2.2 A scoping exercise was undertaken in 2007 to determine the geographical extent of the socio – economic assessment and the social groups that would form the focus of the assessment. In addition, the social issues addressed throughout the impact assessment were determined based on technical experience, relevant guidance, social literature and relevant case studies. The output of the scoping exercise identified which key vulnerable[1] groups within the study area should be included within the assessment. The vulnerable groups and data used to define these groups within this study are detailed in Table 20.2. Census data referred to within Table 20.2 was collected for all Lower Layer Super Output Areas[2] (LSOAs) within Halton.

20.2.3 The impact assessment was undertaken in line with The International Principles for Social Impact Assessment (Ref. 1), produced by the International Association of Impact Assessment (IAIA2003).

20.2.4 Vanclay (2003) (Ref. 1) states that SIA can be defined as 'analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programmes, plans, Projects) and any social change processes invoked by those interventions'. Vanclay (2003) (Ref. 1) states that a comprehensive SIA should include an assessment of changes to the following:

a. People's way of life;
b. People's culture;
c. People's communities;
d. The current political systems;
e. The current environment;
f. Health and Wellbeing;
g. Personal and Property Rights; and
h. Fears and Aspirations.

20.2.5 This chapter has taken these criteria into consideration within the effects assessment of the Project.

[1] Vulnerable is used to mean those people who might be more susceptible to negative health or social impacts from the proposed development. It is acknowledged that not all people within a' vulnerable group' will be equally vulnerable. However, there will be more people who are vulnerable within the specific group than are vulnerable outside that group.

[2] These are areas of equal population size (an average of 1500 people) and are therefore comparable. In addition, they will not change with alterations to ward boundaries, as they are not politically based.

20.3 Study Area

20.3.1 The geographical extent of the study of socio - economic effects was determined by the likely extent of direct social related effects associated with the Project. Social effects were primarily assessed at a local level within the Borough of Halton. Effects of the Project on social receptors from outside of Borough were also considered where relevant. The economic study area was defined using travel to work distances and the likely extent of travel in relation to the New Bridge and therefore, taken as a 40 minute drive from the New Bridge.

20.3.2 The study area used within the assessment incorporates the potential extent of changes in surface water quality, land use, landscape and visual amenity, contamination, waste, air quality, noise levels, navigation, traffic flows and wider economic impacts, resulting from the Project. The areas considered within these assessments, with regards to social receptors are detailed in Chapters 8, 9, 12, 14, 15, 16, 17, 18 and 19 of this ES. A specific emphasis was placed on those communities within LSOAs that are in close proximity to the Project. The Project passes directly through 14 LSOAs within the wards of Beechwood, Castlefields, Halton Brook, Halton Lea, Heath, Mersey and Riverside, as shown in Figure 20.1. It is likely that impacts resulting from the Project will have the greatest effects to these communities as they are directly adjacent to Project activities.

20.3.3 In some cases reference within this chapter is made to specific Project construction areas designated A – I. These areas are detailed in Figure 2.1 (Chapter 2).

20.3.4 Consideration was also given to vulnerable groups within communities in Halton who are likely to be particularly sensitive to effects associated with the development of the Project. These groups are detailed further in Table 20.2.

20.4 Relevant Legislation, Planning Policy and Background

20.4.1 Table 20.1 presents a summary of relevant national, regional and local legislation and policies applicable to the assessment of social issues within Halton that are relevant to the Project. The policies and legislation detailed below were used to help determine the relevant socio - economic baseline of Halton Borough detailed in Section 20.6 and effects assessment categories used within this Chapter.

Table 20.1 - Relevant Legislation and Policy

Policy, Legislation and Background	Summary of key issues identified for the Socio - Economic Impact Assessment
International	
European Structural Funding	At an international level Merseyside is recognised as an area eligible for European Structural Funding. European Funding is provided by the European Union (EU) and supports poorer regions of Member States by providing funds to help them regenerate their economies and create new jobs (Ref. 2). There are four funding initiatives provided, which include: European Regional Development Fund (ERDF); European Social Fund (ESF); European Agricultural Guidance and Guarantee Fund (EAGGF); and Financial Instrument for Fisheries Guidance (FIFG). Funding from these sources is provided at 3 levels, varying from Objective 1 (being the highest level of funding) to Objective 3 (lowest level of funding). Objective 1 funding is provided to areas '*to deliver structural adjustment and development in EU regions that are lagging behind. Eligible areas are those that have less than 75% of EU average Gross Domestic Product (GDP) per capita*'.

Policy, Legislation and Background	Summary of key issues identified for the Socio - Economic Impact Assessment
	Merseyside which lies adjacent to, but does not include the study area, is the only area eligible for Objective 1 funding within the North West. Projects and initiatives within Halton are funded under Objective 2. The 'Quality of Life' within England has been targeted through a 1994 EU initiative; Single Regeneration Budget (SRB) Schemes. Nationally, Local Regeneration Partnerships bid for 6 rounds of SRB funding providing that their Project meets the eligible objectives set for each round. In total 1027 bids were awarded funding, worth over £5.7 billion. SRB funding aims 'to enhance the quality of life of local people in areas of need by reducing the gap between deprived and other areas, and between different groups' (Ref. 3). Halton was awarded funding for three schemes, these schemes include: SRB Round 2 – Runcorn on the Mersey (£12.7M awarded): This Project opened in 1996 and was completed in 2003. The programme aimed to revive Halton through stimulating an increase in economic and social activity via increasing business in the area, increasing the skills base of the area, by providing community support services to residents and in making the area successful, prosperous and attractive; SRB Round 4 – Realising the Benefits (£2.55M awarded): This Project aimed to create opportunities, remove barriers and promote inclusion in the full economic and social life of Halton. This Project ran from 1998 to 2004; and SRB Round 5 – Focus for Change (£23M awarded): This Project opened in 1999 and continued until 2006. The focus of expenditure was primarily Widnes, as no previous SRB funding had been spent here. Focus for Change aimed to reduce areas of disadvantage and deprivation. In addition to external EU government funding, the approved SRB bids attracted private sector investment. For the SRB programmes awarded funding within Halton an additional £103M was provided from other private sources.
National	
Sustainable Development Strategy – Securing the Future (2005)	This document states that '*The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations*'. This strategy seeks to work on local, national and global levels to implement sustainable development through such measures and policies as enabling and encouraging behavioural changes, realising sustainable consumption and production, targeting energy consumption, greenhouse gas emissions and climate change, protecting natural resources and enhancing the environment.
Regional	
Regional Planning Guidance (RPG) 13 (Regional Spatial Strategy (RSS)	The main aim of RPG13 is to promote sustainable patterns of spatial development and physical change. In order to achieve this aim RPG13s' seven key objectives are: To achieve greater economic competitiveness and growth, with associated social progress; To secure an urban renaissance in the cities and towns of the North West; To ensure the sensitive and integrated development and management of the coastal zone and secure the revival of coastal resort towns; To sustain and revive the Region's rural communities and the rural economy; To ensure active management of the Region's environmental and cultural assets; To secure a better image for the Region and high environmental and design quality; and To create an accessible Region, with an efficient and fully integrated transport

Policy, Legislation and Background	Summary of key issues identified for the Socio - Economic Impact Assessment
	system. RPG13 specifically highlights that a '*very significant enhancement, in terms of image and opportunities for higher quality of life overall, is required in Runcorn and Widnes*'.
North West Development Agency's (NWDA) 'Regional Economic Strategy' (2006)	The NWDA specifically identifies Halton as an area to target for '*Delivering the basic skills required by employers for those individuals without qualifications', to 'Deliver support to improve peoples prospects of getting a job (employability activities) and reduce the high level of Incapacity Benefit claimants*', to '*Develop and encourage employment creation in or near deprived areas*' and to '*Develop business start up and support services*'. It can therefore be seen that the Project will be created and operate in a location where such social policies must be considered
Greater Manchester Learning and Skills Council (GMLSC) Co-Financing Plan for Halton 2004-2006	The main objectives of the GMLSC co-financing plan comprise; 'To set out areas where we can invest in Halton's available workforce by adding value and/or augmenting mainstream provision, so that we can help to encourage new investment in Halton, promote business growth and retention, and generally be more responsive to the specific skills needs of employers and individuals in Halton. Enhance activity underway and ensure linkage with the Regional Development Plan, and to Halton's key strategic documents i.e. Economic Development Strategy, Community Strategy and Objective 2 Action Plans.'
Local	
Halton Unitary Development Plan (UDP) (2005) (Ref. 4)	Halton became a Unitary Authority in 1998. The current UDP was adopted in April 2005 and sets the framework for development within the Borough up to 2016. The UDP's main strategic aim is; '*to transform the quality of Halton's environment and improve economic prosperity and social progress through sustainable development*'. This aim is to be achieved through setting targets and objectives for economic development, housing and population, environmental and cultural assets, environmental quality, regeneration, town centres and shopping, transportation, waste and social inclusion. Halton's UPD aims to achieve social inclusion through the following objectives; Create more job opportunities through new development and a more diversified economy; Provide for suitable access and facilities in developments for people with disabilities and people with young children; Protect greenspace from development; Protect local shops, recreation and community facilities; Improve public transport; Provide safe and attractive pedestrian routes and extend pedestrianisation of town centres; and to Encourage a proportion of all new houses to be built suitable for the less mobile. Halton's UDP recognises that the Mersey Estuary is a major barrier to transportation links between Runcorn and Widnes, and other parts of the sub-regions. The UDP states that *'the congestion of the existing single road crossing is a major constraint to the economic development of the area and to social and economic interaction within the Borough'* and that these issues are an objective for the UDP to resolve. The UDP's main strategic aim of Economic Development includes an objective '*to promote schemes of economic importance within the Borough including the New Mersey Crossing*'.
Neighbourhood Renewal Areas	Halton is listed as one of the government defined Neighbourhood Renewal Areas. Neighbourhood Renewal Areas (NRA) are defined under 'A New Commitment to Neighbourhood Renewal: National Strategy Action Plan, 2001' and are listed as the top 88 most deprived Boroughs within England. NRA are those listed within the top 50 most disadvantaged within England against any of the six district level summaries of the Index of Multiple Deprivation (IMD). (Refer to paragraphs 20.6.10 to 20.6.22). A total of £800 million is distributed between these local authorities to achieve the two long term visions set out by the

Policy, Legislation and Background	Summary of key issues identified for the Socio - Economic Impact Assessment
	National Strategy Action Plan. These goals consist of: 'In all poorest neighbourhoods, to have common goals of lower worklessness and crime, and better health, skills, housing and physical environment'; and 'To narrow the gap on these measures between the most deprived neighbourhoods and the rest of the country'. Neighbourhood Renewal Funds are awarded to the NRA to help them achieve the standards of other less deprived authorities. Halton has been awarded £6.049 million for 2006/07 and £5.377 million for 2007/08. No decision has currently been made (as of February 2008) on the future of the NRF beyond 2008. Data collected to assess the baseline deprivation level of Neighbourhood Renewal Funded (NRF) areas is provided in the Public Service Agreement (PSA) Floor Target Local Authority Profiles. PSA floor target profiles compare NRF LAs against other NRF local authorities and English as a whole for health, education, crime, worklessness, housing and liveability criteria. These statistics (PSA 2006) (Ref. 5) show that Halton ranks lower than other NRF areas for Health (male and female life expectancy and cancer mortality rate). However, PSA floor target profiles have shown that Halton has a lower crime rate (household burglaries and robberies) than other NRF local authorities in England. The key aims to be achieved through NRF in Halton are: Improving Health Standards; Promoting Urban Renewal; Enhancing Life Chances and Employment; Increasing Wealth and Equality; and Ensuring Safe and Attractive Neighbourhoods.
Halton Strategic Partnership 'A Community Strategy for a Sustainable Halton 2006 – 2011, Making it Happen in Halton' (Ref. 6)	Halton's Strategic Partnership outlined a number of socio economic objectives and targets to be achieved within Halton by 2011 in; 'A Community Strategy for a Sustainable Halton 2006 – 2011, Making it Happen in Halton'. The key themes which were identified by this strategy are: A Healthy Halton; Halton's Urban Renewal; Halton's Children and Young People; Employment, Learning and Skills in Halton; and A Safer Halton Halton Strategic Partnership stated that the main key themes identified above are to be achieved in the *medium term* through: Improving health; Improving the skills base in the Borough; Improving educational attainment across the Borough; Creating employment opportunities for all; Tackling worklessness Tackling the low wage economy;

Policy, Legislation and Background	Summary of key issues identified for the Socio - Economic Impact Assessment
	Improving environmental assets and how the Borough looks; Creating prosperity and equality of opportunity; Reducing crime and anti-social behaviour; Improving amenities for all age groups; Furthering economic and urban regeneration; Tackling contaminate land; Creating opportunities/ facilities/ amenities for children and young people; Supporting the ageing population; Minimising waste/ increasing recycling/ bringing efficiencies in waste disposal; Increasing focus on community engagement; and Running services efficiently.
Halton's Corporate Plan (2006 – 2011) (Ref. 7)	Halton's corporate plan, 'Its all Happening in Halton 2006 – 2011' outlines the goals which the Council aspire to achieve by 2011 to create a better future for Halton. The vision for Halton, which guides their key priorities and actions states; '*Halton will be a thriving and vibrant Borough where people can learn and develop their skills, enjoy a good quality of life with good health; a high quality, modern urban environment; the opportunity for all to fulfil their potential; greater wealth and equality; sustained by a thriving business community; and safer, stronger and more attractive neighbourhoods'.* Key priorities are identified within the corporate plan and, for each, realistic objectives and targets are set. These key priorities are grouped in six themes, which mirror Halton's main priorities throughout all the council's adopted strategies, including those in Neighbourhood Renewal Strategy and the UDP. These key themes consist of: A Healthy Halton; Halton's Urban Renewal; Halton's Children and Young People; Employment, Learning and Skills in Halton; A Safer Halton; and Corporate Effectiveness and Business Efficiency.
Local Area Agreement for Halton (April 2007 – March 2010) (Ref. 8)	Halton's Local Area Agreement is a three year agreement based on priorities outlined by local Community Strategies and the Central Government. The agreement mirrors the vision and five strategic aims (a – e) which are highlighted above by Halton's Corporate Plan. The Local Area Agreement specifically identifies seven key priority deprived wards within which Halton aims to 'close the gap' between the most deprived communities and Halton overall. The wards, which were identified on the basis of census and IMD data are; Castlefields; Windmill Hill; Halton Lea; Grange; Riverside; Kingsway; and Appleton. Of these wards, the Project passes through Castlefields, Halton Lea, Grange and Riverside.
Halton Local Transport Plan 2006 – 2011 (Ref. 9)	The main objective of Halton's Local Transport Plan (LTP2) (2006 – 2011) is '*The delivery of a smart, sustainable, inclusive and accessible transport system and infrastructure that seeks to improve the quality of life for people living in Halton by encouraging economic growth and regeneration, and the protection and enhancement of the historic, natural and human environment*'. Further to achieving the LTP main objective four additional objectives have been identified comprising; Tackling Congestion, Delivering Accessibility, Safer Roads and

Policy, Legislation and Background	Summary of key issues identified for the Socio - Economic Impact Assessment
	Better Air Quality.

20.4.2 This description of relevant legislation, policy and background shows is that Halton is an area of need with people who have vulnerability characteristics e.g. low income and poor health. Given this, it is appropriate to understand the potential impact on people in Halton from the Project through a socio-economic impact assessment.

20.5 Assessment Methodology

20.5.1 This section provides details on the assessment methodology used in the SEIA.

Temporal Scale

20.5.2 The temporal scales assessed within this report covered the following scenarios;

a. The 2006 – 2007 baseline scenario;

b. The '*do nothing*' future scenarios including the opening year (2015) and design year (2030) of the Project;
c. The '*do minimum*' future scenarios (based on information obtained from the Transport Chapter 16, the Noise Chapter 17 and the Air Quality Chapter 19) including the opening year (2015) and design year (2030) of the Project; and
d. The '*do something*' scenario with the Project being operational. This was assessed during the construction phase of 2008 – 2015, the opening year of 2015 and design year of 2030.

20.5.3 The temporal scales defined above are detailed in Chapter 3.

20.5.4 Transport modelling, which was used to inform the Transport Chapter 16, the Air Quality Chapter 19 and the Noise and Vibration Chapter 17 includes the assessment of effects using a 'do minimum scenario'. Consequently, where relevant, reference to this scenario has been made as opposed to the 'do nothing' scenario. The assessment of the Project has only been undertaken in line with the significance criteria for the 'do something' scenario, and where appropriate, the 'do minimum' scenario.

Receptors

20.5.5 The receptors investigated for the socio - economic impact assessment were:

a. Individuals and families within the LSOAs surrounding the Project;

b. Individuals and families within the rest of Halton;
c. Travelling public – individuals who travel across Halton via car/ bus/ cycle/ foot ;
d. Employees - who travel to Halton for employment and also those who live locally and work in Halton. In circumstances where specific jobs are created or lost through the Project, the effect to appropriately skilled/ qualified individuals was assessed; and
e. Specific recreational groups using facilities within the Borough.

20.5.6 The above listed receptors are considered to reflect the extent of effects experienced within the chosen study area (detailed in section 20.2) for this assessment.

20.5.7 The wards within the Borough of Halton are made up of a number of diverse communities. The identified receptors and specified vulnerable groups are considered to be representative of the diverse communities within Halton. This therefore ensures that all vulnerable groups (as detailed in Table 20.2) were referenced in the socio - economic impact assessment process along with a range of other residents from those receptor groups defined above. Vulnerable groups were not assessed as specific receptors but were considered as subsets within defined receptor groups.

Table 20.2 - Data used to Define Vulnerable Groups in the Study Area

Vulnerable Group	Data used to define Vulnerable Groups within Halton
Older People	2001 Census data for % residents aged over 65.
Disabled	2007 IMD data for % residents considering themselves disabled
Individuals/ families with long term limiting illness	2007 IMD data for % residents considering themselves to have a long term limiting illness
Unemployed	2007 IMD data for % residents who are economically deprived; 2001 Census data for % residents who are economically active who consider themselves 'unemployed'.
Low income groups	2007 IMD data for % residents experiencing income deprivation
Ethnic minorities	2001 Census data for % residents who do not classify themselves as 'White British'
Residents from deprived communities	2007 Index of Multiple Deprivation overall score for deprivation.

Potential Effects

20.5.8 The assessment was based on a number of social variables that have been developed in social literature and guidance. The effects assessed in the SEIA were based on variables developed by Burdge (2004) (Ref. 10, 11). These variables formed the basis of the impacts assessed within the SEIA.

Baseline Data Methodology

Primary research

20.5.9 In order to establish baseline data on attitudes and perceptions of Halton and the Project, seven stages of public research were undertaken. Social research experts[3] were appointed to obtain unbiased public opinion data. The final reports of each stage are referenced below in Table 20.3.

Table 20.3 - Social Research

Stage of Research	Method of Data Collection	Focus of the survey	Survey Report
Stage 1	Focus group with residents, in-depth interviews with businesses, telephone survey with businesses, on-street survey with wider travelling public at 10 different locations, workshop with stakeholders.	Research was undertaken to identify the current perceptions and travel needs within Halton and consideration of different bridge options	New Mersey Crossing Consultation – Stage One (2002)
Stage 2	Focus groups with residents, workshops with businesses and local interest groups, postal survey with all stakeholders.	Research was undertaken to quantify support for a new crossing within Halton and identify any preferred route options	New Mersey Crossing Consultation – Stage Two Route Consultation (2003)
Stage 3	Eight focus groups were consulted with residents, employees and employers.	Research was undertaken to identify respondents' views regarding the implementation of tolls on the New Bridge and/or the Silver Jubilee Bridge	New Mersey Crossing Tolling Feasibility Study (2004)

[3] All the focus group and survey research was carried out by MVA Ltd

Stage of Research	Method of Data Collection	Focus of the survey	Survey Report
Stage 4	Postal survey amongst local businesses and random sample of households (2,400 questionnaires sent).	Research was undertaken to determine driver sensitivity in relation to travel/time cost and see if this is in line with DfT's default values for Economic Assessments, to provide more specific values of time relative to drivers currently crossing the River and give greater confidence when modelling how drivers will behave under different future scenarios involving increased journey time to avoid a toll.	New Mersey Crossing Quantitative Research Stated Preference (2004)
Stage 5	Numerous questionnaire s were distributed in local facilities along with reply paid envelopes in addition to random on street interviews in Runcorn and Widnes town centres. For the purpose of assessment Halton was spilt into eight regions with one north and one south of Halton. For reference these regions were spilt as follows; 1 – Riverside; 2 – Hough Green, Ditton and Hale; 3 – Farnwoth and Birchfield; 4 – Halton View, Appleton and Kingsway; 5 – Mersey; 6 – Halton Brook, Grange and Heath; 7 – Castlefields, Halton Lea, Beechwood; 8 – Daresbury, Windmill Hill, Norton North and Norton South; 9 – Areas north of Halton; and 10 – Areas south of Halton.	Research was undertaken to determine the use of community facilities and frequently made trips to key destination types, in order to map how people use the space in their local areas.	Community Facilities Research (2005)
Stage 6	1046 questionnaires, covering letters and pre paid envelopes were sent to Halton Citizens' Panel.	Research aimed to investigate how people perceive their local area and how involved they are in community activities.	Mersey Gateway Social Impact Assessment Quality of Life Survey (2005)
Stage 7	Nine focus groups were conducted with vulnerable and other groups identified as part of the SEIA. A telephone survey took place with Black and Minority Ethnic groups (BME) respondents due to the cancellation of that focus group. In addition, a	Research aimed to explore the perceptions and attitudes of residents and employees towards the Project and its potential effects on those who are most likely to be affected by construction and operation of the Project	Mersey Gateway Social Impact Assessment (2007)

Stage of Research	Method of Data Collection	Focus of the survey	Survey Report
	quantitative survey (face-to-face interviews) of residents residing close to the Silver Jubilee Bridge (SJB) and the route of the proposed Project.		

Secondary Research

20.5.10 Secondary baseline social data was collected via a desk study exercise to produce a social profile for Halton, drawing on information from published works. Data sources included the Council's web site, local socially related policies, plans and strategies, National Census Data (2001), Neighbourhood Statistics Data (Ref. 12, 13) and Index of Multiple Deprivation 2007 (which uses 2001 - 2005) statistics (Ref. 3).

20.5.11 This desk study also identified social facilities utilised by the social groups within Halton. These facilities included; schools, community centres, places of religious worship, hospitals and health facilities.

20.5.12 The output of this stage provided information on the social baseline for Halton for the year 2006 - 2007 which established profiles for the area in terms of key variables against which to assess impacts.

Literature and Case Study Review

20.5.13 A case study review was undertaken and is presented in Appendix 20.2, which focused on the development of similar estuary crossings such as the Humber Bridge and the Thames Gateway Bridge.

20.5.14 Literature on good practice in social impact assessment and health research of Halton Borough (Lancaster University, 2003) (Ref. 14), was also reviewed for the assessment and incorporated into the baseline information.

Impact Assessment

20.5.15 Burdge (2004) (Ref. 11) provides a list of social impact variables, which were used in the scoping exercise as a tool to determine the scope of the SEIA. These variables were considered in the identification of impacts resulting from the Project. Impacts were determined in the scoping stage and consequently analysed within this Chapter. Impact analysis was undertaken for the construction and operational phases of the Project in the 'Do Something' scenario. Impacts studied within this SEIA are summarised in Table 20.4.

Table 20.4 - Construction and Operational Phase Impacts and Related Effects

Potential Impact	Phase of Development	Reason for inclusion within the SEIA.	Specific Variables assessed within the impact
Change in population structure.	Construction	An influx of construction workers and a change in population structure may have an impact on communities within Halton.	Change in population number, Influx/ Outflow of temporary workers; Presence of an outside
	Operational	Jobs and regeneration in Halton may encourage people to remain/come to Halton.	

Potential Impact	Phase of Development	Reason for inclusion within the SEIA.	Specific Variables assessed within the impact
			agency; and Change to community infrastructure.
Change in employment opportunities.	Construction	Construction related jobs have the potential to benefit the local community.	Change to economic inequities; Change in employment equity of minority groups; Changing occupational opportunities.
	Operational	Jobs may be created for the operation of the Project or as part of the regeneration it brings, which local communities may benefit from. This will depend on the types of jobs created.	
Change in perception of, or actual health and safety issues for individuals in Halton.	Construction	The construction of the Project may change levels of noise, air pollution, exposure to contamination and safety on the roads within Halton.	Change to health and safety due to construction/ maintenance plant and vehicles. Change to levels of local air pollutants; Changes in noise and vibration levels; Changes in exposure to contamination Change in recreational opportunities and associated health effects
	Operational	Reduced congestion may change potential health impacts associated with exposure to contamination, noise, air quality levels and road safety.	
Changes in access to facilities and social networks around Halton.	Construction	The construction of the Project has the potential to effect local access to social networks and facilities around Halton and upon their individual's daily living and movement patterns. A change in access, through a change to the transport network, is also likely to create high levels of stress.	Change to daily living and movement patterns; Change to social networks; Change in leisure opportunities; Change in access to health facilities; Change in access to education facilities
	Operational	The Project has the potential to impact local's access to social networks and facilities around Halton.	
Change in availability of amenity and recreational land.	Construction	The construction of the Project may require the demolition of facilities in Halton that may have an impact people that use these.	Change in availability of residential/ commercial/ industrial properties and community facilities; Change in availability of recreational land

20.5.16 Social impacts were assessed using mainly qualitative data with quantitative data where available. Data was collected through a combination of desktop analysis of available information, data from the primary and secondary research exercises detailed in paragraphs 20.5.9 to 20.5.12 and expert opinion.

Criteria for Significance Assessment

20.5.17 Impact significance, prior to the implementation of mitigation measures was determined using the following criteria.

a. Status of effect - Positive or negative;
b. Duration of the effect (short/medium/long term);
c. Permanent or temporary effect;
d. Direct or indirect effect;
e. Magnitude of the effect (low/moderate/high); and
f. Importance/ Sensitivity of receptor (low/moderate/high).

Status of Effect

20.5.18 The status of the effects was assessed by considering whether the Project will have a positive or negative effect on the receptor. Effects are determined as:

a. Positive – as having an advantageous or positive effect to the identified receptor;
b. Neutral – an effect that is likely to have negligible influence, irrespective of other effects; or
c. Negative – as having detrimental or negative effects to the identified receptor.

Duration of Effect

20.5.19 The following timescales have been considered within this assessment:

a. Short Term – Effects are likely to occur between 0 – 40 months (i.e. the construction period);
b. Medium Term – Effects are likely to between 40 months – 10 years; or
c. Long Term – Effects are likely to occur for >10 years.

Permanent or Temporary

20.5.20 For the purposes of this assessment a permanent effect is considered to one which is irreversible and will last for the lifespan of the Project and beyond (i.e. long term in nature).

20.5.21 Temporary effects are considered to be ones which are associated with the construction phase (i.e. short term in nature); however in some cases temporary effects may continue throughout the operational phase. Temporary effects are reversible.

Direct/ Indirect Effects

20.5.22 Effects were assessed as being either directly or indirectly influenced by the construction/ operational activities of the Project. A direct effect is one where there is a measurable direct correlation between the Project and the resulting change. Indirect effects are those where changes are as a result of intermediaries.

Magnitude

20.5.23 The magnitude of effect was determined in consideration of how important/ sensitive the area under consideration was with regards to the identified receptors and on professional judgement. Effects were considered to be of High, Moderate and Low magnitude as detailed below;

a. High – resulting in a high effect to defined vulnerable groups and/ or other effects which have implications at regional scale;
b. Moderate – resulting in a moderate effect to defined vulnerable groups and/ or other effects which have implications at a Borough wide level; and
c. Low – resulting in a low effect to defined vulnerable groups and/ or other effects which have implications to specific LSOA within Halton.

Importance/ Sensitivity of Receptor

20.5.24 The importance/ sensitivity of the receptor was determined by the vulnerability of the receptor to the perceived impact. Vulnerability is specific to each receptor and identified impact and was based on the 2001 census data and Index of Multiple Deprivation (2007 domains) (Ref. 3).

20.5.25 Vulnerable group data was primarily based on the IMD 2007 data, which uses 2001 – 2005 ONS Census data (as detailed in Table 20.2). The wards which contained LSOAs ranked within the IMD worst 4% and 20% nationally were identified and used for assessment of impacts (see 20.6.19 for details). The worst 4% was considered due to the relatively deprived baseline which some wards within Halton experience Vulnerable wards with regard to 'older people' were based upon LSOAs where the greatest proportion of population was over 65 years (retirement age). For the purposes of this assessment, specific emphasis was placed on LSOAs with above national average levels of 'older people'. 2001 Census data indicates that the national average proportion of older people residing within communities is 16% and therefore LSOAs where the percentage of older people exceeded 16% were considered to be specifically vulnerable. However, it should be noted that older people living within all areas of Halton may be susceptible to negative health and social impacts.

20.5.26 Vulnerable wards with regards to individuals and families with a long term limiting illness (LTLI) were based on LSOAs containing numbers of residents with a LTLI above the national average of 18%. Unemployment vulnerability was based on the 2007 employment deprivation IMD score; however consideration was also given to the percentage of unemployment rate above the national average (3.35%)[4].

20.5.27 Figure 20.2 shows wards and specific areas of wards where vulnerable groups defined using the criteria above, are located.

20.5.28 Using the above noted importance/ sensitivity criteria receptors were identified as being of;

a. High Importance/ Sensitivity;
b. Moderate Importance/ Sensitivity; and
c. Low Importance/ Sensitivity.

Significance

20.5.29 The overall significance of identified effects was based on the magnitude of the effect, the importance of the receptor, relevant baseline information, professional judgement and consideration of relevant guidance and previous experience of development Projects. Effects were consequently designated as being of:

a. High Significance;
b. Moderate Significance;
c. Low Significance; or
d. Not Significant.

[4] Unemployment data is taken as the percentage of individuals between the ages of 16 – 74, who define themselves as 'Economically Active: Unemployed'.

20.5.30 Where effects were sourced from other relevant Chapters of this ES, it has been assumed that recommended mitigation and enhancement measures will be employed and therefore the significance of was based on the residual effects.

20.5.31 Each impact identified within the SEIA had a specific method for assessing the geographical extent and significance of that impact. These are outlined below in paragraphs 20.5.32 to 20.5.42.

Change in Population Structure

20.5.32 The effect of any predicted changes to the population structure was assessed based on research undertaken by Burdge (2004) (Ref. 11). Burdge (2004) stated that if the number of workers employed per month from 'outside' of a region is greater than 40 individuals, greater than 25% of the workforce employed or the construction period is longer than 6 months, then the impact to the population structure within an area will be significant. For the purpose of this impact assessment, Halton is deemed to be the region in question beyond the boundary of which is deemed to be 'outside' of that region.

20.5.33 The sensitivity of receptors to a change in population structure was based on the overall IMD deprivation score of LSOAs. Individuals and families residing within deprived LSOAs will be highly sensitive to increased pressure on services and facilities, whereas more affluent LSOAs are regarded to be more resilient to change and of low sensitivity. For the purpose of this assessment deprived areas are considered to be those within the 2007 IMD 'worst 20%' nationally, with specific emphasis placed on those within the worst 4% nationally.

20.5.34 The assessment of potential change in population structure also considered the baseline social profile within Halton and existing fear of crime within Halton. These were identified through Stage 6 social research as well as Halton Borough Council's Local Area Satisfaction Surveys (2004).

Change in Employment Opportunities

20.5.35 Current employment locations, current areas of unemployment (based on the 2001 Census statistics and 2007 IMD data) and future employment areas were displayed where possible through the use of Council maps and Geographical Information Systems (GIS) techniques. Areas sensitive to a change in employment opportunities were identified as LSOAs within the IMD worst 20% nationally for employment deprivation (with specific emphasis on those within the worst 4% nationally) and LSOAs with % unemployment rates higher than the national average. The local, regional and national unemployment rates were sourced from the 2001 Neighbourhood Statistics data for individuals who describe themselves as 'economically active - unemployed'. Employment changes were also considered in relation to Regeneration Areas (RAs) and the Hinterland within a 40 drive of the New Bridge. RAs are defined as the LSOAs designated within the IMD worst 20% within the study area. Hinterland comprises all remaining LSOAs within the study area.

Change in Perception of, or Actual Health and Safety Issues for Individuals in Halton

20.5.36 Further to the outline significance criteria, effects to health and safety were assessed based on legislative guidance. Effects to health from air pollutants were based on the National Air Quality Strategy (2007) standards and objectives as detailed in the Air Quality ES Chapter 19. Effects to health from noise and vibrations were based on legislative guidance provided in the Noise Assessment ES Chapter 17. Effects resulting from contamination in soils, sediments, ground and surface water contamination were assessed based on legislative guidance as detailed in the Surface Water Quality ES Chapter 8 and the Contamination of Soils, Sediments and Groundwater Chapter 14.

20.5.37 Potential health effects to pedestrians and cyclists through changes in use of footpaths, cycleways and roads were sourced from the Transport Chapter 16. Any changes in access to health facilities which may affect the take up of health related activities and any diversions or closures of footpaths and cycleways which may change the travelling behaviours were used within the assessment. The Transport Chapter provides detailed analysis of potential effects to health during the operational phase in line the following Highway Agency's Transport Analysis Guidelines (TAG) (Ref. 15, 16) sub objectives;

a. Physical fitness sub-objective (Unit 3.3.12) which states that; 'Consideration of the health implications of transport proposals could therefore be identified through an assessment of changes in the opportunities for increased physical activity through cycling and walking. Providing increased opportunities to walk and cycle may also have additional benefits including improvements to the physical environment within communities, fostering well-being and community spirit which also have implications for health'; and

b. The TAG Journey Ambience Sub-Objective - Unit 3.3.13 which assesses traveller care (facilities and information provided to travellers), traveller views (landscape and townscape) and traveller stress (based on frustration, fear of potential accidents and route uncertainty).

Changes in access to facilities and social networks around Halton

20.5.38 Effects of changes to the transport network to pedestrians, cyclists, public transport, vehicle travellers and the community were sourced from the Transport Chapter 16. The assessment criteria for traffic impacts were undertaken in line with the DMRB methodology Volume 12: Traffic Appraisal of Road Schemes (Section 2 Part 1). Assessment within the Transport Chapter 16 was also undertaken in accordance with further guidance from TAG including The Environment Objective.

20.5.39 All existing and proposed rights of way used by pedestrians and cyclists and public transport routes which are likely to be affected by the proposed route of the Project were identified. In addition, all rights of ways crossed by existing roads likely to experience an increase/decrease in traffic flows of more than 30% due to the Project were identified using the Transport Chapter.

20.5.40 Areas of low car and/or van ownership were assumed to be highly sensitive to changes to public transport routes or public rights of way on foot or bicycle due to the Project, as reliance on these routes would be greatest within these locations.

20.5.41 All roads which were likely to experience an increase or decrease in travel times were identified from the Transport Chapter. The proximity of these links to key community facilities was identified through the use of GIS.

Change in availability of amenity and recreational land

20.5.42 Details of facilities which are being demolished or obtained through Compulsory Purchase Orders (CPOs) and changes to amenity and recreational land were sourced from the Land Use Assessment ES Chapter 9. The change in availability of amenity and recreational land assessed the proposed land take in comparison to the identified receptors, with specific emphasis on vulnerable groups.

Methodology for Determining Mitigation and Enhancement Measures

20.5.43 Appropriate mitigation measures were suggested through reference to the mitigation measures hierarchy (Department of the Environment Transport and the Regions (DETR) 1997) (Ref. 17) and EIA: A guide to good practice and procedures (CLG, 2006) (Ref. 18) to reduce the significance of all impacts identified likely to affect social receptors.

20.5.44 Enhancement measures were also suggested where it may be possible to benefit the local community. These were designed to enhance positive impacts created by the development of the Project.

Methodology for Determining Residual impacts

20.5.45 Residual effects to social receptors following mitigation were identified and their significance determined.

20.6 Baseline and Results

Baseline Information

20.6.1 The following section details the baseline information for the SEIA[5] and covers the following areas:

a. Social profile;
b. Index of Multiple Deprivation;
c. Income;
d. Employment and Regeneration;
e. Education, Skills and Training;
f. Transport and Accessibility;
g. Health and Disability;
h. Services and Facilities; and
i. Local Amenities.

Social Profile

20.6.2 Halton is situated in the north west of England and straddles the River, with the town of Widnes to the north and Runcorn to the south. These two communities are currently only directly connected within the Borough by the SJB, which opened to traffic in 1961.

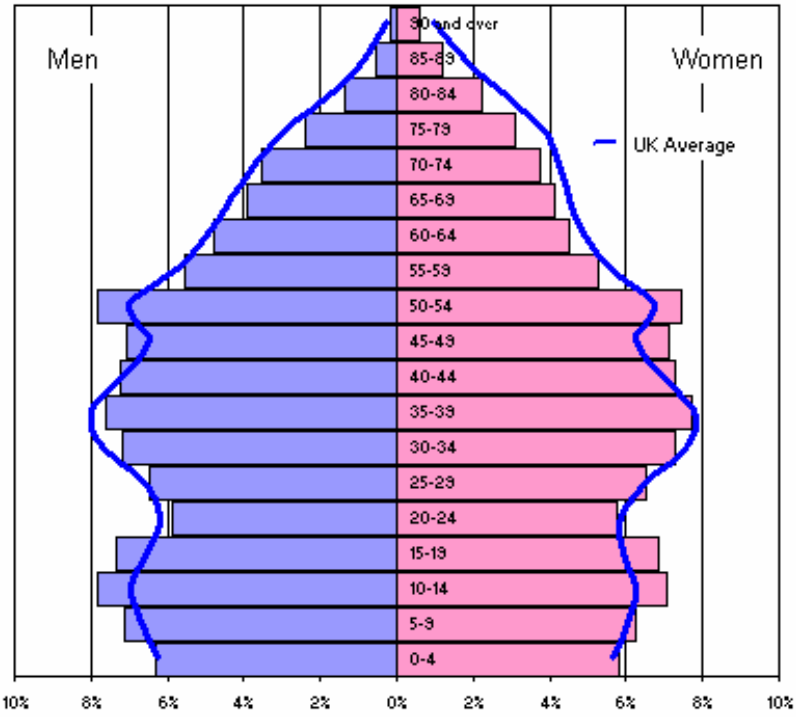
20.6.3 Figure 4.1 provided in Chapter 4 of this ES shows Halton's ward profile. Halton is divided into 21 wards.

20.6.4 The 2001 National Census (Ref. 12) indicated that the total population in Halton in 2001 was 118,208 (with 57,135 males and 61,073 females). Government data suggests that this figure rose to 118,900 in 2004 and 119,500 in 2006 (Ref. 19). The Council's UDP (2005) identifies that Halton's population declined from a peak of 124,900 in 1991 to 118,208 in 2001. The UDP also notes that population forecasts are projected to fall to 114,600 by 2010. However, recent population estimates for 2006 has shown a recent increase in population numbers of 1,292 people from the 2001 Census level.

20.6.5 The population pyramid for Halton presented in Figure 20.3 (Ref. 12) shows the age proportions of residents within Halton in 2001. It should be noted that as this data was collected six years prior to the baseline situation, this pyramid does not provide an up to date representation of the existing situation. Statistics (ONS) forecasts that by 2015 there will be a 27% increase in people aged over 60, a 19% increase in people aged over 75 and a 20% decrease in teenagers within the Borough of Halton.

[5] All data refers to the Borough of Halton unless otherwise indicated.

Figure 20.3 - Halton's Population Profile



20.6.6 Halton is an urban area where historically the industrial base was in chemicals, food processing, clothing, metal products and furniture manufacture. The local workforce in the past was skilled for these manual and chemical industries, which have now been closed. This accounts for some of the outwards migration and unemployment within the Borough.

20.6.7 Halton Borough Council's Homeless Strategy and Review established that in 2002/ 2003 there were approximately 300 homeless applications in Halton and that there were no asylum seekers or refugees within Halton.

20.6.8 The ONS (2001) shows that the majority of Halton's population is of white origin (98.8%) and Christian religion (83.8%). The largest minority ethnic groups in Halton (ONS 2001) are of Chinese origin (0.2% people). The ethnic breakdown of the Borough's population is shown in Figure 20.4.

20.6.9 Figure 20.5 shows that the greatest proportions of older people in Halton (i.e. those aged over 65 years) reside within the wards of Farnworth and Heath.

Index of Multiple Deprivation

20.6.10 In 2000, a comprehensive survey of deprivation was undertaken by the Department of the Environment and the Regions[6] (DETR), who commissioned a team at the University of Oxford (the Index Team) to produce an Index of Multiple of Deprivation (IMD) for each ward within England. They updated and enhanced previous work done on the 1998 Indices of Local Deprivation which was based on 1991 national Census data. The original IMD (2000) domains and domain weightings (totalling 100%, where 0% equals high deprivation) were based on:

a. Income (25%);
b. Employment (25%);
c. Health, Deprivation and Disability (15%);

[6] DETR is now the Office of the Deputy Prime Minister (ODPM) and Department of the Environment Food and Rural Affairs (DEFRA).

d. Education, Skills and Training (15%);
e. Housing (10%); and
f. Geographical Access to Services (10%).

20.6.11 In March 2004 the Office for the Deputy Prime Minister (ODPM) commissioned the Social Disadvantage Research Centre at the University of Oxford to update the 2000 IMD. The 2004 IMD updated the previous index for 2000 but also included 2001 Census results. The 2004 IMD was further updated in 2007.

20.6.12 The 2007 IMD data, (which was updated from 2004 domains) is made up of 7 Domain Indices comprising:

a. Income (22.5%);
b. Employment (22.5%);
c. Health and Disability (13.5%);
d. Education, Skills and Training (13.5%);
e. Barriers to Housing and Services (9.3%);
f. Living Environment (9.3%); and
g. Crime (9.3%).

20.6.13 2007 IMD data uses 2001 Census data and 2003 – 2005 government data. A detailed description of the data from which the 2007 IMD domains are comprised is presented in Appendix 20.3.

20.6.14 The 2007 IMD is based on 32,482 LSOAs. The 2007 IMD in Halton was based on 79 LSOAs (rather than 21 wards). The location of the 79 LSOAs within the 21 wards in Halton is presented in Figure 20.1.

20.6.15 Each LSOA is given an IMD *score* and *rank* for each domain and a total weighted IMD score and rank encompassing all domains. The most deprived LSOAs are those given the lowest *ranking* and the highest *score*. The IMD *rank* of LSOAs is the position of the LSOA out of the total 32,482 LSOAs within England, where 0 is most deprived and 32,482 is least deprived. The IMD *score* is a domain weighted calculation out of 100, where 100 is the most deprived and 0 is the least deprived.

20.6.16 The IMD focuses on the worst 20% LSOAs. The purpose of the IMD surveys is to allow initiatives to be targeted at deprived areas where resources are most needed.

20.6.17 As detailed within paragraph 20.5.25, for the purpose of this assessment the worst 20% and worst 4% have been used to signify the most vulnerable areas.

20.6.18 The lowest ranking (i.e. most deprived) LSOA in Halton for overall deprivation is located in the southern part of Windmill Hill ward and is ranked 306th (worst 0.9%) out of 32,482 nationally. The next two most deprived LSOAs are located within the wards of Castlefields and south Kingsway. In total, there are eight LSOAs in Halton that are ranked in the top 1,000 most deprived LSOAs in England (approximately 10% of Halton's LSOAs) and 10 in the worst 4% nationally (12.7% of Halton's LSOAs).

20.6.19 Halton has 38 LSOAs ranked in the worst 20% nationally for overall deprivation. This figure is an improvement on data collected in 2000, where, 54% of Halton's population were in the worst 10% most deprived wards in England. Figure 20.6 presents a detailed deprivation profile of the LSOAs within Halton.

20.6.20 As shown in Figure 20.6, several of the most deprived LSOAs (within the worst 20% nationally) are located in close proximity to the Project. These LSOAs are predominantly located within the wards of Castlefields, Riverside and Halton Lea and particularly include the LSOAs of Halton

007A, Halton 010A, Halton 010B, Halton 013E, Halton 015B, Halton 013F, Halton 007C, Halton 007D, Halton 010D and Halton 010E.

20.6.21 Overall, Halton was ranked as the 39th (worst 12%) most deprived Borough in England in 2007 (based on the average rank) (out of 354 local authorities) with 1st being the most deprived and 354th the least deprived, which is an improvement on its 2004 ranking of 21st most deprived. This shows that based on the average IMD rank, deprivation levels within Halton Borough are improving. In a sub regional context Halton is less deprived than the neighbouring Boroughs of Liverpool and Knowsley, which are designated within the top 10 most deprived Boroughs, but not as prosperous as most others.

20.6.22 The overall IMD ranking of LSOA within Halton was specifically used to inform the Project effects resulting from a change in Population Structure. However, the individual domains as noted below, allow for other particular issues to be identified.

Income

20.6.23 Out of 354 local authorities nationally, Halton was ranked as the 92nd most deprived Borough for income deprivation.

20.6.24 The IMD 2007 indicated that 11 LSOAs in Halton were ranked in the worst 4% and 37 in the worst 20% nationally with the highest ranking LSOAs (least deprived) within the Borough located in Windmill Hill. Income deprivation is consequently an area of concern in Halton as nearly half of the LSOAs within the Borough are designated as income deprived.

20.6.25 As shown through the IMD (2007) income deprivation ranking (shown in Figure 20.7), Halton is economically deprived. Some areas within the North West region exhibit some of the most acute levels of social and economic deprivation in England, including some LSOAs within Halton. In a sub regional context, the updated IMD puts the Merseyside district of Liverpool in the top three most deprived Boroughs for income derivation and Knowsley as the 50th most deprived Borough. As noted in paragraph 20.6.21, Halton is less deprived than these surrounding Boroughs.

20.6.26 Median weekly earning of full time employees within Halton are presented below in Table 20.5. This table shows that wages within Halton are above the North West average, but are lower than the British average. Despite the fact the wages are higher than the regional average, the rate of wage increase is in fact the lower than those of neighbouring Boroughs and the regional and national average.

Table 20.5 - Median weekly earnings of full-time workers

Area	2003 (£)	2007 (£)	% change from 2003 - 2007
Halton	399.00	442.90	11.0
Merseyside	364.70	426.60	17.0
Warrington	394.40	479.10	21.5
North West	379.70	434.20	14.4
Great Britain	405.20	458.60	13.2

20.6.27 As shown in Figure 20.7 the majority of LSOAs within the Project are designated within the worst 20% nationally for income deprivation, which indicates that these areas have below average household incomes and are dependent on some form of income support. Appendix 20.3 provides a detailed breakdown of specific census data, which was used to produce the

income deprivation levels. Income deprivation rankings were used to inform the effects assessment of Project tolling.

Employment and Regeneration

20.6.28 The 2001 National Statistics show that a lower proportion of Halton's population of working age (16 – 74) are employed, at 57% than the national average at 60.9%. The State of the Borough Review (Halton Borough Council 2003) (Ref. 20) indicates that unemployment levels, although high, are falling gradually. Data obtained from Neighbourhood Statistics (2001) shows that unemployment[7] in 2001 in Halton, at 4.6% is higher than the regional average of 3.63% national average of 3.35%.

20.6.29 Government statistics (Ref. 11) suggest that Halton has an above average rate (regional and national) of 16 – 74 year olds obtaining no qualifications. Studies from Halton Borough Council (2005) (Ref. 21) have also shown that persons aged over 19 years old lack employment skills. This has led to many businesses recruiting from outside of the Borough and therefore not investing within Halton. Halton's UDP (2005) (Ref. 4) identifies that unemployment amongst the under 25s in Halton is the 2nd highest in England and Wales (at 33.6%).

20.6.30 Data obtained from the 2007 IMD shows that 14 LSOAs in Halton were ranked in the worst 4% nationally for being the most deprived under the employment domain (as presented in Figure 20.8). The highest ranking (most deprived) LSOA, for employment within Halton, is located within Castlefields ward (bordering the Project construction route), which is ranked 87th nationally. Approximately half of the LSOAs in Halton are designated within the worst 20% for employment deprivation. These are located within the wards of Hough Green, Broadheath, Kingsway, Appleton, Halton View, Ditton, Riverside, Mersey, Castlefields, Grange, Farnworth, Halton Brook, Halton Lea, Windmill Hill, North South and Norton North.

20.6.31 The highest rate of unemployment in 2001 was also identified in the ward of Castlefields (LSOA Halton 010A) at 11.54%. Figure 20.8 shows the 2001 % unemployment rate in comparison to the 2007 IMD employment deprivation rank. Figure 20.8 highlights that the wards of Ditton, Riverside, Castlefields, Windmill Hill and Halton Lea are identified as containing the lowest ranking LSOAs for the IMD employment domain and contain the highest levels of unemployment.

20.6.32 Table 20.6[8] (Ref. 19) shows that the largest employment sectors in Halton are currently services, finance, IT and other business activities, and distribution, hotels and restaurants. Construction and manufacturing industries have fallen from 6% and 20.4% of total employment in 2002 to 5% and just over 14% in 2006 respectively. In 1995 over 30% of workers within Halton were employed in manufacturing. The change in predominant employment sectors reflects the transition of Halton away from its 'industrial past'.

Table 20.6 - Employment by Industry as % of Total Employment – 2006

Industry	Industry Sector	Halton (jobs)	Halton (%)	North West (%)	Great Britain (%)
Manufacturing		7,700	14.3	12.5	10.9
Construction		2,700	5.0	5.0	4.8
Services	Services Overall Total	43,300	80.6	81.7	82.9
	Distribution, hotels and restaurants	11,500	21.4	23.9	23.5

[7] Unemployment data is taken as the percentage of individuals between the ages of 16 – 74, who define themselves as 'Economically Active: Unemployed'.
[8] Industry data is provided as a % of the total number of jobs

	Transport and communications	6,600	12.3	6.0	5.9
	Finance, IT and other business activities	12,700	23.6	19.2	21.2
	Public admin, education and health	10,200	19	27.8	26.9
	Other services	2,300	4.3	4.7	5.3
Based on an employment total of 53,700					

Table 20.7 - Broad Industry Sector – 2002 (Ref. 20)

Industry	Industry Sector	Halton (%)	North West (%)	UK (%)
Agriculture		0.03	0.84	1.54
Mining/Quarrying		0.40	0.11	0.27
Manufacture		20.40	15.28	13.23
Utilities		0.02	0.18	0.36
Construction		6.00	6.72	6.58
Services	Distribution	17.71	17.87	16.97
	Hotels/Catering	4.58	6.05	6.11
	Transport/Communication	10.22	6.04	6.10
	Financial Services	0.58	1.94	2.29
	Business Services	13.68	14.40	17.05
	Public Services	22.59	25.52	24.03
	Other Services	3.81	5.04	5.45
	Total	100.00	100.00	100.00
Based on an employment total of 56,000				

20.6.33 The Council's UDP 2005 – 2016 (Ref. 4) identifies 'Economic Development' as a main strategic aim within the Borough, stating that; Halton aims '*to promote sustainable economic prosperity and create new employment opportunities which broaden the economic base, reduce unemployment and are accessible to local residents*'.

20.6.34 The Mersey Gateway Regeneration Strategy (2007) details several key high quality research and knowledge based employment areas within Halton, namely '*Daresbury Park and Daresbury Science and Innovation Campus'* located in Runcorn. Daresbury Park has attracted a number of blue chip organisations and in addition to provision of office space. Daresbury Science and Innovation Campus is a high tech employment area which accommodates several occupiers including healthcare, digital and electronic instruments. A number of other mature industrial areas are also identified as key employment areas within both Widnes and Runcorn.

20.6.35 The only employment area which is currently viewed by the Council as a market failure is Astmoor Industrial Estate in the ward of Castlefields which is operating with a 25% vacancy rate.

20.6.36 The six largest employers in Halton employ 29% of those in work, with the largest employer being Halton Borough Council. Fifteen of the Boroughs largest 25 employers are in the manufacturing sector.

20.6.37 The number of VAT registered businesses has increased by 6.6% from 2004 (at 2,265) to 2006 (at 2,415). The number of VAT registered businesses within the study area's RAs also

increased by 5.5% from 2004 (at 31,890) to 2006 (at 33,630). These rates of increase are above the national and regional averages increase of 4.2% and 4.6% respectively (Ref. 19).

20.6.38 The total number of jobs in Halton has also risen from 51,500 to 54,000 over the period 2004 to 2006. This equates to an increase of 4.9%. However, the total number of jobs within the study area RAs has decreased within the same time period by -1.6% to 705,700 jobs in 2006. The increase in jobs noted within Halton is above both the regional and national average increases of 1.4% and 2.8%.

20.6.39 The main areas of employment to which residents of Halton are likely to travel to the north and south of the River are detailed in Table 20.8 below.

Table 20.8 - Sites of Employment North and South of the River

North of the Mersey	South of the Mersey
Birkenhead 12 Quays	Daresbury
Wavertree Technology Park	Wirral Business Park – BromBorough
Kings Business Park Knowsley	Chester Business Park
Speke Garston/Estuary	Astmoor Industrial Estate
Ditton Business Park	Ellesmere Port – Cheshire Oaks
Warrington Gemini Retail Park	
Knowsley Industrial Park	
St Helens Sherdley Industrial Estate	

20.6.40 The main employers within the Regeneration Areas of Halton (Ref. 22) are shown below in Table 20.9.

Table 20.9 - Major Employers within Halton

Employer	Industry
O2;	Mobile telecommunications
Diageo;	Food and drink
Bayer Cropscience;	Crop protection / biotechnology
BNFL;	Energy production
Atos Origin;	Information technology
De Vere;	Hotel and leisure
Yokogawa;	Manufacture of measurement and control instrumentation
Ineos Chlor	Manufacture of chemicals

20.6.41 At present the industrial property market within Halton shows that there is an oversupply of industrial units of 2,000 – 5,000ft^2 and 10,000 – 20,000ft^2. However, there is an undersupply of smaller industrial units up to 2,000ft^2 and between 5,000 and 10,000ft^2.

20.6.42 Data obtained from the Council ('Halton: Gateway to Prosperity' 2005 – 2008) (Ref. 23) has identified that tourism is also an important factor for Halton's economy and employment. Tourism figures obtained in 2003 estimated that tourism in Halton is worth £83 million per annum, with £45 million of this through day visits. Tourism accounts for 1,562 jobs (through direct and indirect full time positions) within Halton.

Housing

20.6.43 Chapter 4 of this ES provides a description of current residential areas within Halton surrounding the Project.

20.6.44 The Council's Housing Strategy 2005/6 – 2007/8 identified that average house price in Halton in 2005 was £123,003, which was 13.8% lower than the sub-regional 2005 average. Halton ranks the 30th most affordable district within England and Wales (out of 376) for housing. As shown in Table 20.10 (Ref. 24), house prices within Halton in 2007 were below the national and regional average. However, data obtained from the Land Registry has identified that the average price of terraced houses and flat prices within Halton have risen by 150% and 238% respectively between 2000 and 2005.

Table 20.10 - 2007 Average House Prices

Area	Annual Change in House Prices (2007)	Average House Price (2007)
Halton	7.2%	£127,722
Merseyside	4.7%	£135,782
North West	6.6%	£132,840
England and Wales	6.7	£184,469

20.6.45 Halton's housing market comprises 72% private housing properties and 28% social rented properties. The rented social housing sector was above the regional and national average of 21% and 19% respectively in 2004.

20.6.46 Despite the recent decrease in Halton's population, there is a high demand for housing stock within Halton as a result of the increase in single occupancy housing (from 22.7% in 1991 to 27% in 2001). Data from the 2001 census suggests that households within Halton have increased by 3,000 since 1991 (to 45,857). However, Halton Council tax records suggest that this figure is even higher and that household numbers have actually increased by nearly 6,000 since 1991 (to 51,000). Furthermore, a predicted increase in the numbers of residents aged over 75 will increase the pressure upon provision of sheltered housing.

20.6.47 Halton's UDP 2005 – 2016 Strategic Policy S18 Provision of Land for Housing identifies that housing provisions should be made in line with the Regional Planning Guidance 13 (RPG13 – now the Regional Spatial Strategy) at a rate of 330 dwellings per annum. RPG13 Policy UR4 identifies that Halton should aim to develop 65% of these dwellings on previously developed or brownfield land. The emerging Local Development Framework (LDF) will rely upon the allocation of new housing to Halton as defined in the emerging North West Plan. This currently indicates that the Council will need to deliver 500 new houses per year until 2021. This represents an increase of 170 dwellings from the current allocation of 330 new dwellings as given in the UDP (2005 - 2016).

Regeneration

20.6.48 Development areas highlighted in Halton by the Council's UDP for 2005 to 2016 comprise of the following:

a. North Widnes Development Area;
b. East Runcorn Development Area; and
c. Hale Bank Development Area.

20.6.49 As noted within the Council's UDP (2005) '*these areas have a mixture of new and existing employment areas that establish a close relationship between homes and job opportunities. Sites have been reserved for local centres for shops and community facilities. Through routes for public transport are available and land has been reserved for new railway stations*'.

20.6.50 Halton's UDP 2005 – 2016 identified several locations as Action Areas under the Town and Country Planning Act (1990). These areas are subject to a '*comprehensive treatment by development, redevelopment or improvement (or partly by one and partly by another)*'. The Action Areas designated in Halton are shown in Figure 9.4 from the Land Use Chapter 9 (Appendix 9.1). These areas are comprised of the following;

a. Southern Widnes;
b. Central Widnes;
c. Widnes Waterfront;
d. Runcorn and Weston Docklands;
e. Halebank; and
f. Castlefields and Norton Priory.

20.6.51 Table 20.11 presents information on specific projects to regenerate the Borough taken from the Council's regeneration statement (Widnes and Runcorn) (2007) (Ref. 25).

Table 20.11 - Regeneration and Redevelopment in Halton

Development	Description of Regeneration
Widnes Waterfront	Commercial developments including industrial and office space and recreational areas including a cinema, ice rink, bowling and restaurants. Industrial developments including a 4,200m^2 B & Q warehouse and 4,650m^2 Widnes Trade Park. *Development is still in progress and is due for completion in Autumn 2008.* Transport improvements of Widnes Eastern Bypass and landscaping and sustainable transport measures implemented at Tan House Lane, Ashley Way and Earle Road. *Development is still in progress.*
3MG – Mersey Multimodel Gateway	Development of a major internal hub and freight park with 6 daily train services to key southern ports. *Development is still in progress*.
Halebank Recreation Ground	Improvements of Halebank recreational facilities with new equipment and landscaping proposals. *Development was completed in July 2007.*
Town Centre Streetscapes	Liebeg Court regeneration of commercial units – *development is now complete.* Commercial Property Renewal Grants to improve physical appearance of established businesses in Runcorn and Widnes – *some development is complete, others are still in progress.* Cross Street (south) Widnes Improvement Scheme to the car park at the rear of The Bradley public house – *development work is now complete.* Victoria Square, Widnes, including renovation of Victorian properties and redevelopment of the paving and street furniture – *development is still in progress.*
St Michael's Golf Course	Three phase work with the EA, Jacobs and Queen's University, Belfast to remediate and re establish fairways, greens and tees for continued use as a municipal golf course. *Development is still in progress*.
Waterside Development	Bridgewater Way improvements along the Bridgewater Canal including signage, towpath and landscaping improvements,

Development	Description of Regeneration
	Work is still in progress and due for completion in Spring 2008. Port of Weston development to create a completely new dockside facility fronting the Manchester Ship Canal including 360 metres of dockside berths and unloading facilities, warehouses and administrative facilities. *Development is still in progress.*
The Canal Quarter	Development along the Bridgewater Canal, the Brindley and Runcorn Town centre. *Development is still in progress.*
Business Parks Improvement Programme (BPIP)	Business Improvements Districts (BIDs) developments including work which is currently progressing on Astmoor and Halebank Industrial Estate. *Some development is complete, others are still in progress.*
Castlefields	Redevelopment of a new local centre including demolition of existing building with subsequent creation of new public square, with shopping, residential and community centre facilities. Housing renewal regeneration of existing housing stock including the clearance of 700 deck-access flats and replacement with desirable and sustainable mix of traditional-styled properties. *Development is still in progress.*

20.6.52 The North West Development Agency's Strategic Investment Plan ruled out recent funding for major regeneration schemes including some identified for Castlefields, Ditton Freight Rail Village and the Widnes Waterfront Economic Development Zone. Despite the lack of funding, regeneration of these areas remains a key concern and therefore highlights the importance of alternative means of regeneration. The impact of the Project to these areas, including any direct/ indirect potential to encourage regeneration is explored further within this chapter and the Land Use Chapter 9.

20.6.53 A number of partnerships, organisations and agencies are working towards urban renewal in Halton. The Major Projects Department was created in 2002 by the Council to take responsibility for physical regeneration programmes. Interested parties are brought together in Halton in several ways, including:

a. The Halton Urban Renewal Partnership;
b. The Castlefields Regeneration Partnership;
c. The Ditton Strategic Rail Freight Park Steering Group;
d. The Widnes Waterfront Steering Group; and
e. Widnes Regeneration Ltd.

Education, Skills and Training

20.6.54 The IMD (2007) indicated that only one LSOA in Halton was ranked in the worst 4% nationally for the Education, Skills and Training domain, which is located in Kingsway.

20.6.55 As shown in Figure 20.9, 35 LSOAs within the Borough are designated within the worst 20% for education, skills and training deprivation. These LSOAs are located within the wards of Ditton, Broadheath, Appleton, Kingsway, Halton View, Riverside, Heath, Mersey, Grange, Halton Lea, Norton North, Norton south, Windmill Hill, Halton Brook and Castlefields.

20.6.56 Data obtained from the Office of National Statistics (2001) shows that Halton scores below average for education, skills and training in that 34.7% of people in Halton aged 16 – 74 years have no qualifications in comparison to the English average of 28.85%. 11.3% of people in Halton aged 16 – 74 hold qualifications at degree level or higher which is comparatively lower than the English average of 19.9%.

20.6.57 Data obtained from the Council has identified that Halton is the most improved Borough in England for GCSE results in 2007. This shows that 62% of individuals within Halton obtained five GCSEs in 2007. Halton is therefore performing above the North West average for GCSE performance, which stands at 59.4% in 2007. The percentage of individuals in 2007 to obtain 2 or more A-Levels (91.1%) has also increased from the 2004 level (of 87%), but decreased from the 2006 level of 93.8%

20.6.58 However, data obtained from the annual population survey (2006) (Ref. 19) has identified that Halton is underperforming with regards to the number of individuals educated to NVQ level 4 and above (at 16.8%) in comparison to the national and regional averages (of 27.4% and 24.8% respectively). This corresponds with studies undertaken by the Council in 2005, which suggested that due to a lack of employment skills of people aged over 19, business within Halton are recruiting from outside the Borough and reducing the potential for inward investment. This trend also correlates with the fact that unemployment amongst the under 25s in Halton is the second highest in England and Wales (at 33.6%) (Ref. 4).

20.6.59 There are 8 secondary and 52 primary schools within Halton. These are primarily located in Runcorn and Widnes. Further education is provided at three colleges, one of which is located in Runcorn (Riverside College Halton) and two in Widnes (Halton College Kingsway and Widnes Sixth Form College). There are four nursery schools in Halton with three located in Widnes (Birchfield, Ditton and Warrington Nursery School) and Grange Nursery School in Runcorn. In addition, there are four special schools located within Halton, of which, three are located in Widnes and one within Runcorn.

20.6.60 Table 20.12 shows the number of pupils at education establishments based on the 2005 annual pupil level results.

Table 20.12 - 2005 Pupil Level Census for Halton Education Establishments

School data based on Annual Pupil Level Census, January 2005	No. of pupils
Nursery Schools	371
Nursery Classes	297
Primary Schools (4-11)	10,126
Secondary (11-16)	7902
Sixth Form (16-18)	256
Special Schools	361
Pupil Referral Units	49
Total	19362

20.6.61 There are no universities located within Halton. However, there are fifteen universities located within North West England. The closest universities to Halton are located within Liverpool, namely; The University of Liverpool, Liverpool John Moores University and Liverpool Hope University. Other universities located within the North West region include; The University of Bolton, The University of Central Lancashire, University of Chester, Cumbria Institute of the Arts, Edge Hill University, Lancaster University, The University of Manchester, Manchester Metropolitan University, The Open University in the North West, University of Salford, St Martin's College and The Royal Northern College of Music.

20.6.62 The distance travelled to education centres was identified by a Social Community Facilities Survey undertaken in 2007. The majority of respondents remained close to their homes (within their residing sector) to access primary and secondary schools, as shown in Figures 20.10 and Figure 20.11. However, a significant number of trips were noted by respondents travelling to sites of higher education; primarily to the ward of Mersey; where Riverside College Halton is located as shown in Figure 20.12. A number of these trips involved crossing the River, with a significant number of respondents travelling across the River from Hough Green, Ditton and Vale.

Figure 20.10 - Cross River Journeys Made to Primary Schools

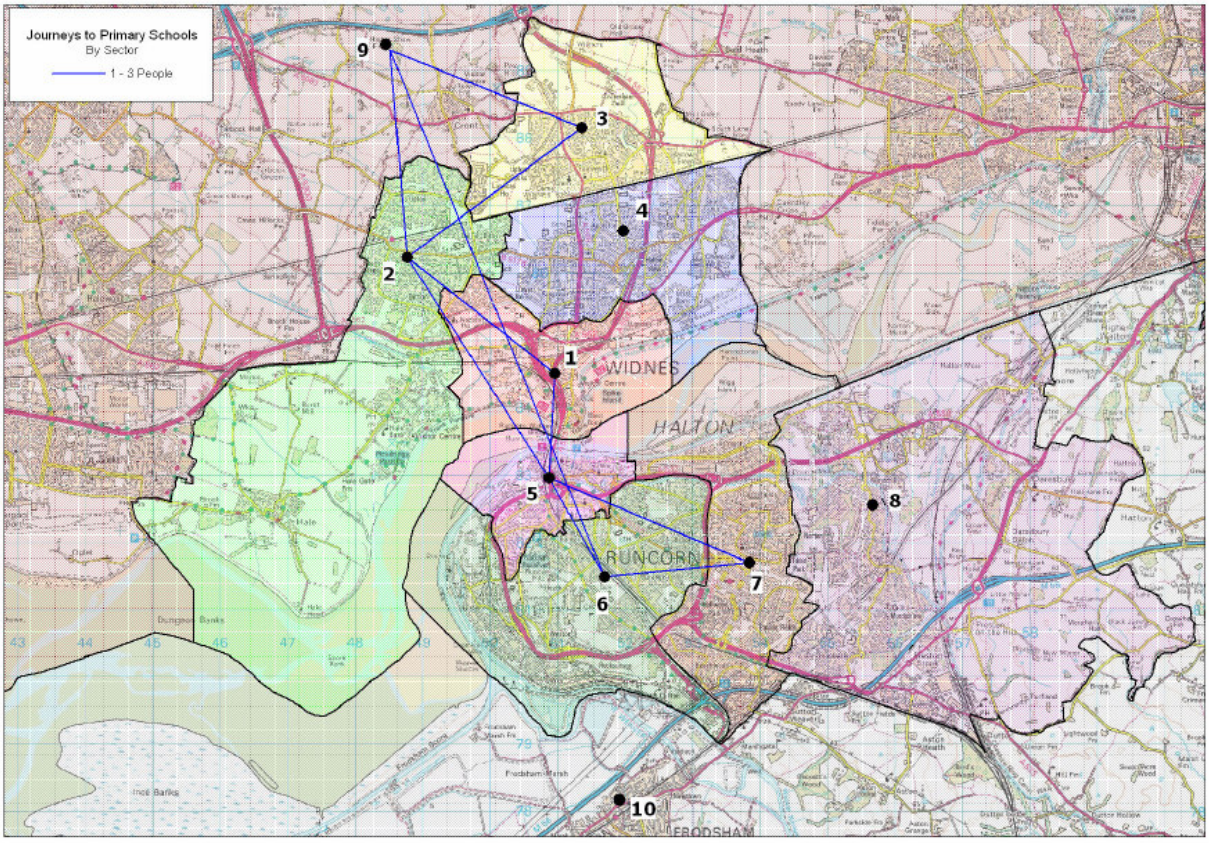


Figure 20.11 - Cross River Journeys Made to Secondary Schools

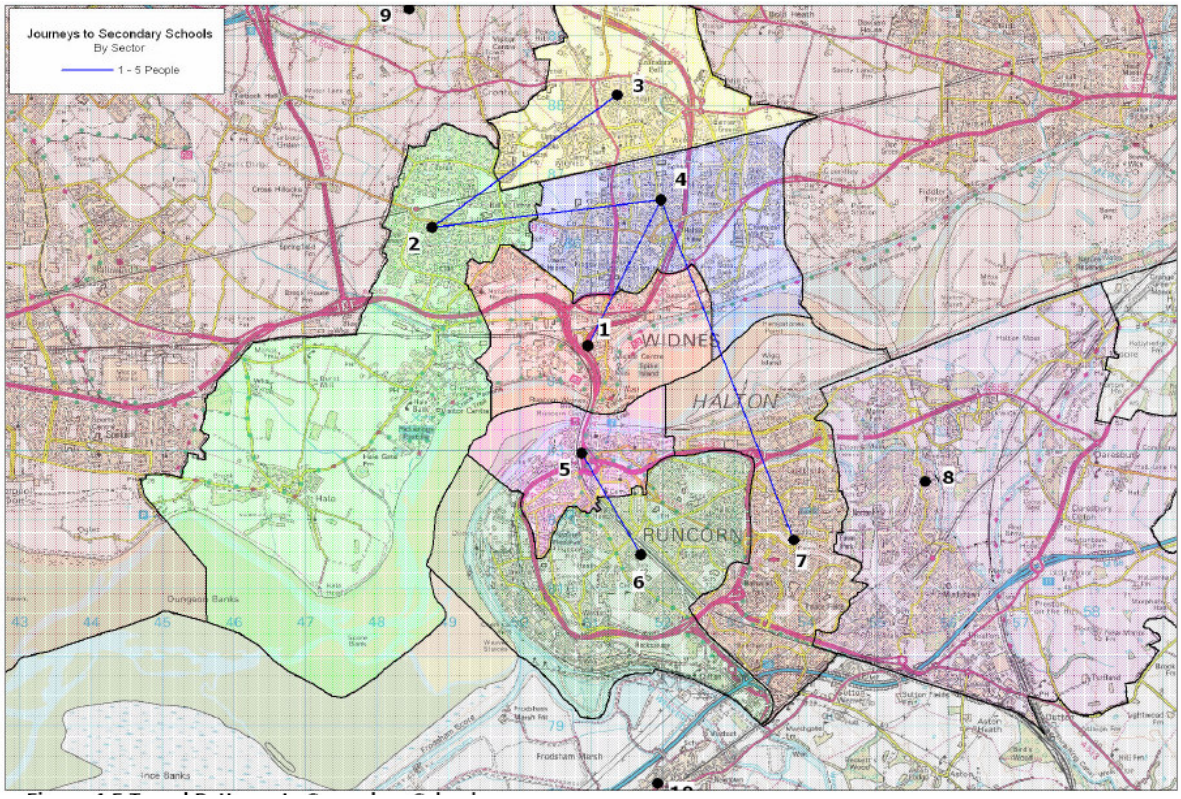
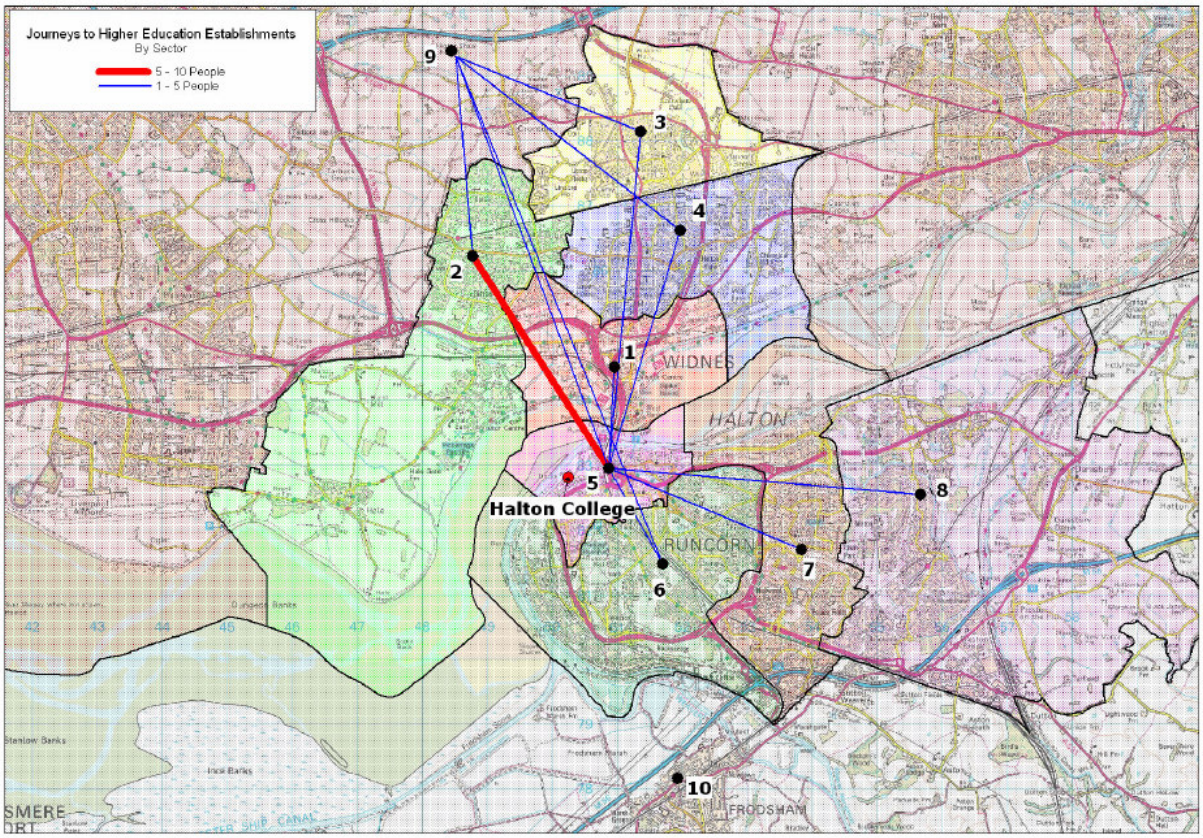


Figure 20.12 - Cross River Journeys Made to Sites of Further Education



Transport and Accessibility

20.6.63 The proposed route of the Project (shown on Figure 1.3 in Chapter 1) is located within the local highway network of Halton, with the A557 and A562 to the north and the A553 to the south. The Project will link into the wider motorway network via the M56 to the south and M62 to the north. Chapter 2 of this ES presents a detailed description of the Project route.

20.6.64 The SJB provides the current link across the River from the M56 to the M62, forming a strategic road link for the region. As noted within Chapter 1 of this ES, traffic flows currently exceed the SJB's design capacity at peak times, resulting in serious congestion that is exacerbated by substandard lane sizes. If the current trends of increasing traffic flows crossing the SJB continue, traffic may be forced onto alternative routes, impacting on the Mersey Tunnels and the M6 motorway, particularly at the Thelwall Viaduct (Halton Borough Council 2001, LTP). In addition, peak spreading may occur where traffic flows across the Mersey are high for a greater proportion of the day. Social research work (Stage One) undertaken in 2002 identified from the 'wider travelling public' on street surveys (undertaken at a sub regional level with a base of 500 people) that 46.2% of those who frequently make journeys across the SJB regularly or occasionally take an alternative route to avoid using the SJB. Community Severance[9] can be caused through increased traffic congestion creating a physical barrier between residents to facilities and services they use within their community.

20.6.65 Vehicular users of the SJB are split into three categories which consist of; internal - movements within Halton at approximately 20% of total usage, regional - trips across the region but with either the origin or destination within Halton at approximately 40% of total usage and thoroughfare– using the SJB as a route through Halton with the origin and destination from outside of Halton at approximately 40% of total usage.

20.6.66 Transport surveys undertaken for the Project indicates that the wider travelling public crossing the SJB (i.e. those whose origin and destination is not in Halton) travel either north or south from the areas of Chester, South Wirral, North Wales, Northwich and Knutsford to areas around East Liverpool (i.e. the airport and Speke Garston employment areas) and to St Helens.

20.6.67 Warrington town centre crossings, the Mersey Tunnels and the M6 at Thelwall provide alternative crossings over the River. The Warrington and Thelwall crossings are free. However, a charge of £1.30 for Class 1[10] and 2[11] vehicles and between £3.90 to £5.20 for Class 3[12] vehicles currently exists on the Mersey Tunnels. As from April 2008 these fares will increase to £1.40 for Class 1 vehicles, £2.80 for Class 2 vehicles and between £4.20 to £5.60 for Class 3 vehicles. Concessionary free travel for the Mersey tunnels is provided to individuals who are disabled13. Crossing the Mersey via these alternative routes would incur the following journey times (obtained from Auto Route Model and based on off peak journey times) from the southern side of the SJB (Runcorn) to the northern side of the SJB (Widnes):

a. Via Warrington – 40 minutes (Distance - 19 miles);
b. Via Thelwall – 65 minutes (Distance - 53 miles); and
c. Via Mersey Tunnels – 75 minutes (Distance - 52 miles).

[9] Defined as Physical Barriers- such as the introduction of new traffic infrastructure (Ref. 26), Social impacts – such as the disruption of 'neighbourhood lifestyle (Ref. 27), Psychological or perceived barriers- such as traffic noise or road safety fears (Ref. 28) or Inhibition of social interaction (Ref. 29)

[10] Class 1 Vehicles include cars, goods vehicles up to 3.5 tonnes gross weight, Buses with less than 9 seats, motor bikes with side cars and 3 wheelers.

[11] Class 2 Vehicles include goods vehicles over 3.5 tonnes gross weight but with only 2 axles and buses with 9 or more seats and 2 axles.

[12] Class 3 (goods vehicles over 3.5 tonnes gross weight and with 3 axles, buses with 9 or more seats and 3 axles) and (goods vehicles over 3.5 tonnes gross weight and with more than 3 axles)

[13] Provided that the individual is in receipt of the highest rate of mobility component of the disability living allowance, or, if aged over 65 years, the highest rate of attendance allowance.

20.6.68 2001 National Census data indicates that 29.4% of households within Halton do not have access to a car/van, 44.4% of households have 1 car /van and 26.2% of households have 2 or more cars/vans. These figures indicate that access to a car/van is below the combined English and Welsh average, where 26.8% of households do not have access to a car/ van and 29.4% of households have 2 or more cars/ vans.

20.6.69 Figure 20.13 shows the proportion of households without access to a car/ van in relation to the Project alignment. This figure shows that of the wards bordering the alignment route; Castlefields, Riverside and Kingsway contain the greatest percentage of households without access to a car/ van.

20.6.70 The Council's LTP household survey (2004) indicates that ownership of a car in Halton is perceived as an essential requirement for daily life and access to services across the Borough. The majority of respondents stated that they use cars for convenience and due to a lack of alternatives. The car is regarded as an important mode of transport for people to access essential services such as places of work, education and hospitals. This survey also confirmed that the main mode of transport to services and facilities is by car. The majority of respondents stated that they use their cars for convenience and due to a perceived lack of alternatives. The car is therefore seen as an important mode of transport for people to access essential services such as education and hospitals as well as places of work in Halton and the surrounding area.

20.6.71 Safety is a major concern on the SJB as currently the facilities for pedestrians are perceived to be poor and facilities for cyclists are perceived to be unsafe (Halton LTP 2001/02 to 2005/06 summary, Halton Borough Council, 2001). There is a designated pedestrian walkway on the upstream side of the SJB however, no specific facilities are provided for cyclists. Social Research (Stage 7) highlighted the concerns of walking and cycling across the SJB, as one resident specifically noted that '*You'd risk your life doing it*'. Figures 16.11 and 16.16 within the Transport Chapter 16 show the existing public transport, cycle and pedestrian routes within Halton.

20.6.72 Data obtained from the Transport Chapter 16 of this ES has identified that during an average weekday some 172 cyclists currently cross the SJB. This number drops to 61 cyclists per day during weekends. The Transport Chapter has also identified that approximately 100 pedestrians cross the river between 7am and 7pm on an average weekday.

20.6.73 Two main bus operators and over ten smaller operators provide a regular extensive local bus service within Halton. Arriva North West and Wales is a public limited company and the predominant bus operator for Runcorn. Halton Transport is a local municipal operator and the predominant bus operator for Widnes. These services are becoming increasingly accessible partly due to greater use of low floor buses for disabled and older people. Halton Transport has 55 (out of 61) low floor buses in service and Arriva has 39 (out of 54) low floor buses in service.

20.6.74 Halton's Final LTP2 2006/7 to 2010/11 acknowledges that fear of crime is a barrier to the extent of use of the bus network in Halton and has therefore launched the Travelsafe initiative '*which involves local and community police travelling on buses and transport corridors, thereby reducing crime and the fear of crime on public transport and in particular on the Runcorn Busway*'.

20.6.75 Halton's Final LTP2 2006/7 to 2010/11 states several measures to improve sustainable integrated public transport throughout the region which will be undertaken throughout the lifetime of the LTP. These measures include; upgrading bus stations within Halton Lea, Runcorn High Street and Widnes Green Oaks, making infrastructure improvements to the North - South Quality Bus Corridor and improving daytime and evening bus links between certain key bus routes (e.g. the 82A service which links Runcorn, Widnes and Liverpool John Lennon Airport).

20.6.76 A rail network also exists in the region, running from Widnes and Runcorn to Liverpool, Warrington and Manchester amongst other destinations. Runcorn has two railway stations, a main line station on the Liverpool to London line and a further station on the Manchester to Chester line. There is, however, no direct rail link between Widnes and Runcorn due to the closure of Ditton Station in Widnes. Halton's Final LTP2 2006/7 to 2010/11 highlights the opportunity to significantly improve the Halton Curve Rail Link, which has the potential to create an opportunity for a new station to be built at Beechwood, Runcorn, and to further stress the need for Ditton Station in Widnes to be reopened. The Council's regeneration action areas, outlined in the Land Use Chapter 9, have identified that aspiration to reopen the passenger rail station at Ditton railway station.

Health and Disability

20.6.77 Figure 20.14 shows that health is a major issue in Halton with the IMD health/ disability domain being the highest scoring domain in Halton in 2007. Twenty seven of Halton's 79 LSOAs (i.e. 34% of LSOAs within the Borough) are ranked in the worst 4% nationally for health deprivation and 52 LSOAs within the worst 20% (i.e. 66% of LSOAs within the Borough). This suggests that health issues are widespread throughout the Borough. The highest ranking LSOA for health is located in Castlefields and was ranked as the 32nd worst LSOA nationally (2007 IMD). As shown in Figure 20.14, a number of LSOAs in close proximity to the Project route are also identified with high health deprivation levels.

20.6.78 Population forecasts for Halton, presented in Figure 20.3 display the future predicted rise of elderly populations within Halton. A rise in the elderly population of an area is likely to be associated with an increased demand for health services, sheltered housing, community facilities and easily accessible public transport.

20.6.79 Of Halton's total population 21.5% have a LTLI (compared to 17.93% in nationally and 20.72% regionally) and 11.6% have a general health that is classified as 'not good' (compared to 9.0% in England) (National Census Data 2001). The wards of Daresbury, Birchfield and areas of Farnworth reported above national average levels of health.

20.6.80 Health issues in Halton are reflected by high mortality statistics. Between 1999 and 2003, Halton has been consistently ranked within the worst four Boroughs in the country for deaths from all causes. The life expectancy figures for 2003 to 2005 indicate a life expectancy for males in Halton of 74.5 and for females of 78.3, which is lower than the national average life expectancy (males 76.9 and females 81.1).

20.6.81 Death rates in Halton are indicated by the Standard Mortality Ratio (SMR) which was 123.4 between 1998 and 2002. SMRs are based on five years death data and are compared against the English and Welsh average death rates. The average death rates are standardised to 100 and therefore Halton currently has 23.4% more deaths than average. Halton was listed the fourth worst Borough (out of 354 LA) within England for life expectancy in 2001/2002. On average, in Halton, men can expect to live 2.2 years less than the national average and women can expect to live 2.5 years less than the national average. Halton Unitary Authority was ranked 10th worst Borough in England for male life expectancy and 2nd worst Borough for female life expectancy.

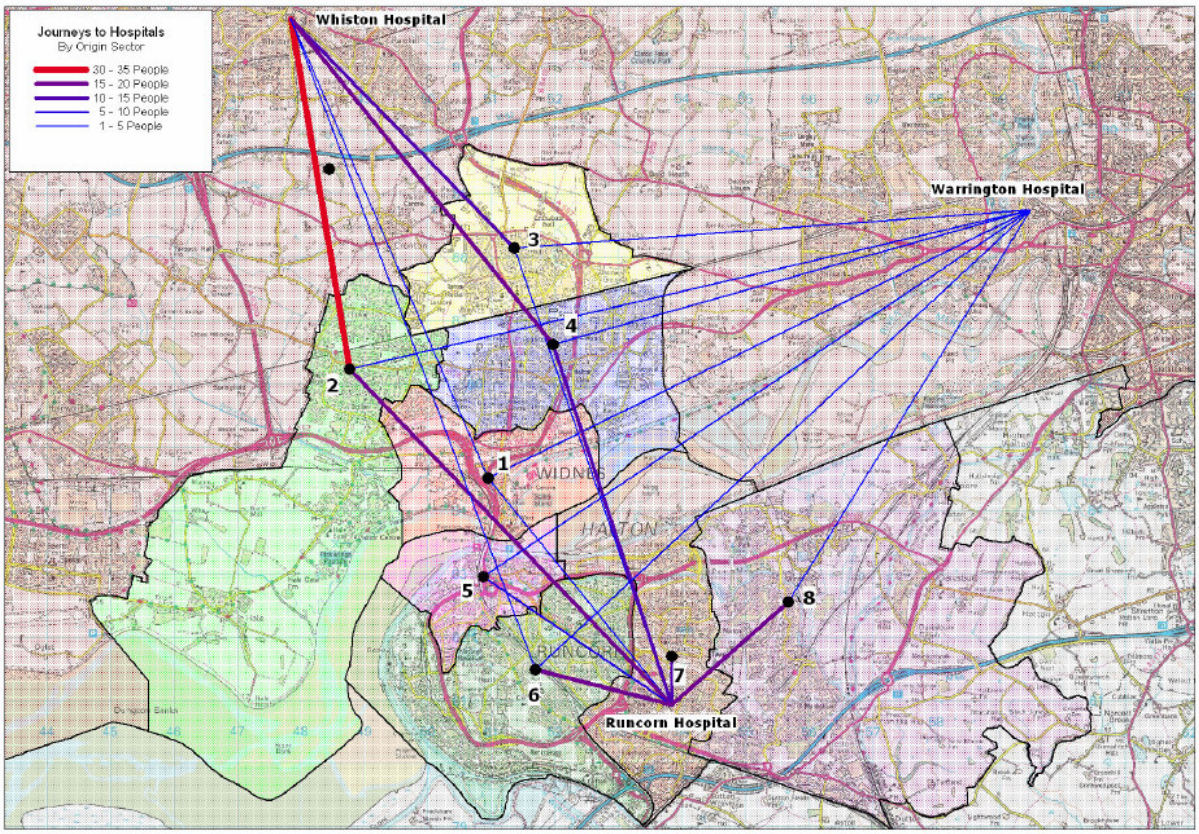
20.6.82 Government statistics show that the main cause of death in Halton is due to cancer (accounting for approximately 25% of all deaths) and heart disease (accounting for approximately 20% of deaths). Halton Borough has the sixth highest all-ages death rate from cancer within England. Between 2000 and 2005 there were 1,988 deaths from cancer in Halton, alongside 3,888 new diagnoses of cancer. The main death-causing cancer found in Halton is lung cancer. Mortality rates from lung cancer within Halton are 55% above the national average (Halton Borough Council, 2003) (Ref. 20).

20.6.83 Road accident figures in Halton which were sourced from Halton's Final LTP2 (2006/07 – 2010/11) are recorded above the national average. The average number of children being killed or seriously injured in Halton is 2.3 times the national average, the number of individuals killed or seriously injured at 1.6 times the national average and the number of individuals being slightly injured being 1.2 times the national average.

20.6.84 There are two hospitals in Halton, the Halton General Hospital (south of the River in the ward of Halton Lea) and Highfield Hospital (north of the River in the ward of Kingsway). Halton General offers facilities for both in and out patients and has a minor injuries unit but has no Accident and Emergency (A&E) department. Highfield Hospital has clinical facilities for maternity patients but no in patients department or A&E.

20.6.85 Halton General Hospital is situated in Runcorn just east of the A533 Central Expressway, which leads north to the SJB. The Social Research Mersey Gateway Community Facilities Research Report (2005) (Stage 5) identified that Halton General Hospital serves residents on both the northern and southern banks of the River. Furthermore, residents on the northern side of the River make a significant number of journeys across the SJB in order to access Halton General Hospital (located in Runcorn). These trips are shown in Figure 20.15. Highfield Hospital is located off Highfield Road, which leads straight down to Ditton Roundabout Junction of the Project.

Figure 20.15 - Cross River Journeys Made to Hospitals



20.6.86 The closest A&E departments to Halton are in Whiston Hospital in Merseyside or Warrington Hospital in Warrington. Warrington Hospital predominantly serves residents of Runcorn whist Whiston Hospital predominantly serves residents of Widnes.

20.6.87 Halton General Hospital and Warrington Hospital are managed by North Cheshire Hospitals NHS Trust and cover an area of approximately 100 square miles, and a population of 309,295.

20.6.88 Regular bus links are provided to other local hospitals outside of the Borough including; St Helens Hospital, the Royal Liverpool University Hospital, The Countess of Chester Hospital, Warrington Hospital and Broadgreen and Alder Hey Hospital. Furthermore a free hospital shuttle is provided between Halton hospital and Warrington hospital.

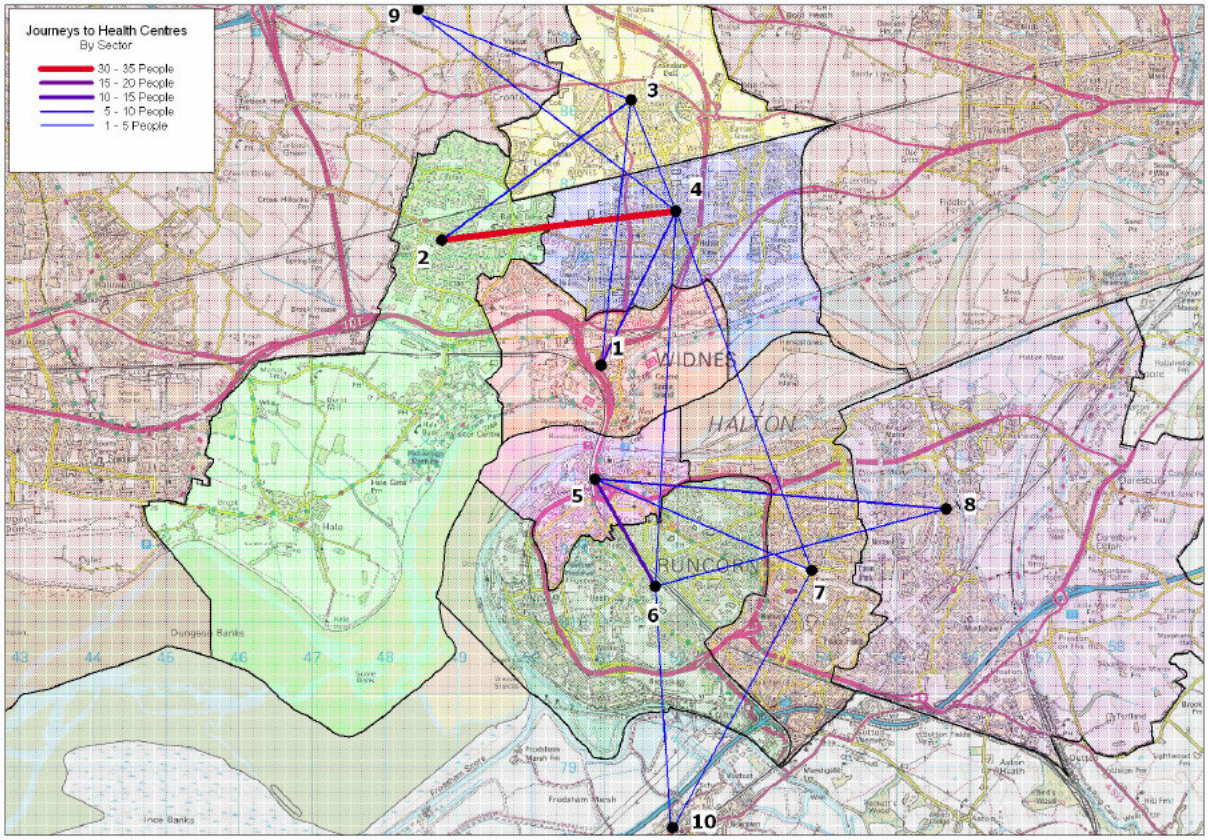
20.6.89 A telephone survey undertaken by Mott MacDonald for Halton's Strategic Partnership in 2005 (Ref. 30) indicated that different wards within Halton experienced different levels of access to local hospitals. On average, 47.2% of respondents from Broadheath, Ditton, Hale and Hough Green stated that it was either *fairly difficult* or *very difficult* to access a local hospital, compared to only 8.1% of respondents from Castlefields, Norton North, Norton South and Windmill Hill.

20.6.90 Halton's Primary Care Trust (Refs. 31, 32, 33) states that there are currently 18 General Practitioners (GPs) Surgeries in Halton, comprising of 8 practices within Runcorn and 10 practices in Widnes. There are 16 dental surgeries within Halton, comprising of 8 surgeries within Runcorn and 8 surgeries within Widnes. The location of GP surgeries and health centres across Halton are presented in Figure 20.14.

20.6.91 The Community Facilities report (Stage 5) identified that trips made to health centres and GPs were predominantly within the wards where the respondent resides. However, trips across the River to access GPs and health centres primarily occurred between the wards Halton View,

Appleton and Kingsway (north of the River) to the wards of Halton Brook, Grange and Heath and the wards of Castlefields, Halton Lea and Beechwood. These trips are shown in Figure 20.16.

Figure 20.16 - Cross River Journeys Made to Health Centres (including GPs)



20.6.92 In March 2002 Lancaster University Institute for Health Research undertook a study into the factors affecting health in Halton (Ref. 14). This study included an investigation of the impact of environmental, social and lifestyle factors on the health of the people in Halton. This study suggested that people living in Widnes are significantly less likely to report ill health than those living in Runcorn which resulted from a number of factors

20.6.93 Statistical analysis within the study revealed no significant association between environmental pollution and self reported ill health in Halton. It was concluded that health problems are most likely to be linked to a combination of high levels of material deprivation and unhealthy lifestyles in the Borough.

20.6.94 The concerns highlighted by the Lancaster University health study relating to the risks of land, water and air pollution to human health in Halton have been explored further in relation to the Project. The chapters contained within this ES discuss the effects of the Project on a number of environmental issues and analyse their potential to effect human health in Halton.

20.6.95 Information detailing the existing baseline levels of other health related issues are provided in the following ES Chapters:

a. Air Quality Chapter 19;
b. Noise and Vibration Chapter 17;
c. Landscape and Visual Amenity Chapter 12; and
d. Contamination of Soils, Sediment and Groundwater Assessment Chapter 14.

Services and Facilities

20.6.96 There are a number of community centres in Halton which are owned and managed by the Council and are used by local residents for a wide range of activities. A figure showing the locations of community services and facilities is provided in Figure 20.17.

20.6.97 National statistics (2001) show that the majority of Halton residents (83.8%) stated their religion as Christian. In comparison, 0.1% of respondents defined themselves as either: Buddhists, Muslim, Hindu, Sikh or other religions. Census data suggests that there were no Jewish residents within Halton. The remaining population defined themselves as either of no religion (8.7%), or did not state a religion (7%). A place of worship, as defined by Halton the Council's website only refers to Christian churches. As only 0.1% of Halton's population defined themselves of 'other religions' (i.e. not Christian) and no data on other places of worship was available, only churches, as a place of worship, have been considered within this assessment.

20.6.98 There are a wide range of leisure and recreational facilities in Halton, which include a number of parks and leisure centres (Brookvale Centre, Runcorn swimming pool and the Kingsway Centre). In addition, The Halton Stadium is the home to the Widnes Vikings Ruby League team and Runcorn Football Club and has hosted international and national matches.

20.6.99 There are currently three golf courses within Halton comprising; St Michael's Golf Course, Cavendish Farm Golf Course and Widnes Golf Course. However, only Cavendish Farm and Widnes Golf Course are in public use as St Michael's Golf Course was closed on public health grounds in 2004 due to contamination of the ground.

20.6.100 In February 2004 the Government's Social Exclusion Unit prepared a report on the impact of transport and the location of transport on social exclusion – *Making the Connections: Final Report on Transport and Social Exclusion* (Ref. 28). This identified those groups likely to be particularly vulnerable to transport related issues and the problems this creates. The key barriers outlined within this report, facing people in accessing services, were noted as the following:

a. Availability and physical accessibility of transport – this is likely to stem from poor provision of public transport services (particularly to rural areas) and poor provision of disabled access to services among other problems;
b. Cost of transport – both private and public costs of transport can be high and unaffordable to groups such as those on a low income;
c. Service and activities located in inaccessible places – such as hospitals, shops and employment areas located out of town, which are not served by a good public transport network;
d. Safety and security – there is often a fear of crime and antisocial behaviour associated with public transport particularly at night; and
e. Travel horizons - Poor information and individuals' limited travel horizons – there is often a lack of information available regarding public transport services and unwillingness for people to travel long distances.

20.6.101 The Social Exclusion Unit report (2001) (Ref. 34) revealed that nearly one in three households nationally does not have access to a car due to cost, age, disability and through choice. Of this total approximately two thirds (63%) are from the lowest income households. These individuals rely instead on walking, buses, taxis and lifts from families and friends. The percentage of households within Halton who do not have access to a car/ van is 29.4% (in comparison to the national average of 26.8%) and highlights the importance of ensuring that the effect of the Project to alternative transport routes and means are considered within this assessment.

20.6.102 As discussed in paragraph 20.6.69, residents in Halton who are less likely to have access to a car are located in the wards closest to the Project such as Riverside, Castlefields and Mersey.

Local Amenities

20.6.103 There are numerous shopping facilities located within Halton, many of which contain low quality, cost saving shops.

20.6.104 Table 20.13 summarises the shopping facilities available in Halton and their locations in either Widnes or Runcorn.

Table 20.13 - Shopping Facilities in Halton

Shopping Centre	Location	Description
Runcorn High Street	Runcorn	Cost Cutting outlets such as: Quids, Poundstretcher, Poundland, Peacocks Stores, U Save discount, Bon Marche and Kwiksave.
Widnes High Street	Widnes	Cost Cutting outlets such as: Quids, Poundstretcher, Poundland, Peacocks Stores, U Save discount, Bon Marche and Kwiksave.
Greenoaks Centre	Widnes	Anchored by Morrisons Supermarket and TG Hughes. Incorporates Widnes Market and covers 250,000sqft.
Windmill Shopping Centre	Widnes	Owned by Modus Properties. Extends to 170,000sqft and is anchored by Iceland and Netto.
The Albert Square Shopping Centre	Widnes	Extends to 87,000sqft and anchored by Argos and WH Smith with a number of other national and local retailers including Iceland, H Samuel and Johnson's Cleaners.
Ashley Retail Park	Widnes	Extends to 75,000sqft and houses B&Q, Comet, Topps Tiles and Charlie Browns.
Simms Cross	Widnes	Argos
Halton Lea Shopping Centre	Runcorn	Includes a shopping core, offices, a library, courts and a police station. The shopping outlets include: Tesco, WH Smith, Woolworths, Boots, Iceland, Argos, Wilkinsons Dixons and various banks and building societies.
Trident Retail Park	Runcorn	Contains a Currys Superstore, Aldi, a fitness centre, multiplex cinema and an Asda.

20.6.105 In 1999 a study of retail use across the Borough was undertaken by Chesterton on behalf of Halton Borough Council (Halton Retail Issues Study, 1999) (Ref. 35). This was further updated in 2002. This involved a household survey in Halton and Warrington, which aimed to determine the change in shopping patterns since 1994.

20.6.106 This survey revealed three main convenience goods[14] markets in Halton comprising; Widnes, Halton Lea (including the Asda store at Halton Lea and the Aldi at Trident Park); and Runcorn. The survey also revealed two main comparison[15] goods markets in Halton comprising Widnes and Halton Lea/Runcorn on the Mersey. For each of these market centres the total share of the catchment (i.e. the area of Halton and Warrington which was included in the household survey) was calculated based on an examination of the percentages recorded by the household survey in relation to people's preferences for particular stores and centres.

[14] The convenience market includes all food based grocery shopping.
[15] The comparison goods market includes non-food goods such as clothes, shoes etc.

Table 20.14 - Convenience Goods Market Shares, 1999

Market Centre	Total Share of Catchment (%)
Widnes	35
Halton Lea	30
Runcorn	5

20.6.107 Table 20.15 indicates the total share of catchment for each market area in 2002. This shows that Widnes is the dominant centre in terms of comparison goods expenditure in Halton.

Table 20.15 - Comparison Goods Market Shares, 2002

Market Centre	Total Share of Catchment (%)
Widnes	20
Halton Lea/Runcorn	7
Others areas outside Halton	73

20.6.108 A study undertaken for the Council by CACI information solutions (2006) (Ref. 36) identified the distribution of retail shopping trips undertaken by residents within Halton. Information obtained from this study is presented below in Table 20.16.

Table 20.16 - Distribution of Total Retail Spend by Halton Residents 2006

Market Centre	Distribution of Spend for retail Shopping in 2006 (%)
Widnes	17.5
Runcorn shopping centre	16.5
Runcorn Trident Retail Park	2.3
Runcorn	0.9
Liverpool	13.3
Chester	7.9
Liverpool New Mersey shopping centre	5.7
Warrington	4.9
Cheshire Oaks – McArtherGlen outlet centre	6.5
Other	24.9

20.6.109 It is evident that Halton's close proximity to competing centres outside the Borough has a considerable influence on expenditure within Halton. Other main market centres outside Halton include Chester, Warrington, Liverpool and St Helens, which account for a large proportion of the comparison goods market.

Quality of Life

20.6.110 The Social Research 'Quality of Life Survey' identifies the existing quality of life experienced by residents within Halton. Quality of Life data was based upon the Audit Commission's Local Quality of Life Indicators (2005) (Ref. 37). These indicators are listed below;

a. 'People and Place;
b. Community cohesion and involvement;
c. Community Safety;
d. Culture and leisure;
e. Economic Well-being;

f. Education and life-long learning;
g. Environment;
h. Health and Social Well-Being;
i. Housing;
j. Transport and Access; and
k. Other'

20.6.111 The Quality of Life Survey identified that approximately 80% of residents were either fairly or very satisfied with their neighbourhood as a place to live. The survey identified that facilities for teenagers and young people were the aspects which respondents in Halton felt required most improvement in their local area. In general, residents within the south of the Borough felt that transport and shopping facilities required improvements as opposed to those in the north of the Borough. However, ten times the amount of residents within the north of the Borough stated that cultural facilities required improvements compared with residents in the south of the Borough.

20.6.112 Respondents were asked whether their neighbourhood had improved, worsened or remained the same. Despite the fact that over half of residents felt that neighbourhoods had stayed the same, nearly twice the number of respondents felt that it had worsened (at 25%) as opposed to changed for the better (13.7%).

20.6.113 The survey also identified that a higher proportion of residents in the south of Halton found it easier to reach facilities than those in the north.

20.6.114 Community cohesion within the social research was identified in line with Local Government Association (2002) Guidance on Community Cohesion (Ref. 38). This guidance states that community cohesion is described as the following;

a. 'There is a community vision and a sense of belonging for all communities;
b. The diversity of people's different backgrounds and circumstances are appreciated and positively valued;
c. Those from different backgrounds have similar life opportunities; and
d. Strong and positive relationships are being developed between people from different backgrounds in the workplace, in schools and within neighbourhoods'.

20.6.115 In light of this description, social research (Stage 6) identified that approximately one third of residents know many of people in their neighbourhood, whereas nearly 60% know a few/ some people in the neighbourhood. Only 1% of respondents stated that they did not know anyone within their neighbourhood, which indicates that some form of social networking is apparent in the majority of neighbourhoods in Halton.

20.6.116 More than half of residents either *definitely agreed* or *tended to agree* that people from different backgrounds got on well together. However, approximately one third didn't know. Only one in seven respondents disagreed with this statement, indicating that Halton has fairly high levels of good community relations.

20.6.117 Four in ten residents noted that they feel *safe* or *fairly safe* walking after dark in their neighbourhoods, which is the same proportion of residents who noted they feel *unsafe* or *fairly unsafe*. In comparison, the majority of residents (86.2%) stated that they feel *safe* or *fairly safe* in their neighbourhoods during the day.

20.6.118 The 2002 Lancaster University study into health in Halton identified that residents of Halton demonstrated a high degree of social capital and commitment to their local communities. This 2002 study (Ref. 14) defines social capital as '*those features of social organisation – such as social networks, high levels of interpersonal trust, and norms of mutual aid and reciprocity – that*

act as resources for individuals and facilitate collective action. Social capital is thus seen as a feature of the social structure, not of the individual actors within it.'

20.6.119 Halton Strategic Partnership circulated 'Quality of Life' surveys throughout the Borough in 2005 and 2007 (Refs. 29, 39). These surveys were undertaken in the Council Neighbourhood Management areas of Widnes Central, Halton Lea and Castlefields and Windmill Hill through postal surveys sent to 6,791 households. These surveys reflect similar Social Research work undertaken in 2005 (stage 6 research). The results of these Halton Strategic Partnership 2005 and 2007 surveys are detailed below.

20.6.120 Similar proportions of residents participating in the 2005 and 2007 surveys indicated that they were either fairly satisfied or very satisfied with their local area as a place to live at 79.2% and 82% respectively. However, despite similar values, a slight decrease in satisfaction is noted across the Borough. The highest level of area satisfaction was noted in the ward of Daresbury with 93.6% of respondents being either fairly or very satisfied in 2005 and 94.3% in 2007. The surveys indicated that, in general, residents feel safer in 2007 than in 2005, with 55.4% of residents feeling safe after dark in 2005, and 57% in 2007. Residents in all wards in Halton felt that they were unable to influence decisions affecting their local area.

20.6.121 The Council circulated a local area satisfaction survey in 2006 throughout the Borough, which provided indicators of quality of life. Survey sections were categorised as 'Condition and maintenance of your local area', 'Local area issues', 'Facilities in your local area', 'Halton Borough Council' and 'Environmental Health Division'. In total, there were 1592 responses to the survey. Baseline quality of life data for Halton can be assessed using results collated from a selection of the survey questions. The results of this survey reflect the results from the Stage 6 social research work.

20.6.122 Stage 6 social research work results suggested that the majority of residents (72.6%) have lived in the area for longer than 10 years. When asked if respondents thought their local area is clean, attractive and well maintained, 68.9% answered that they were '*very or fairly satisfied*', where 19.3% were '*fairly or very dissatisfied*'. Of all the questions asked within the survey, the only one indicating a primarily negative response was on the standard of health in Halton. The majority of respondents (at 37.1%) stated that the standard of health within Halton was either '*poor or very poor*', compared to 32.4% whom stated that health was generally '*very good or good*'. Respondents were also asked if they believed vandalism, graffiti and other deliberate damage to be a problem in their local area, the majority of respondents stated that they thought it was either '*not a very big problem, or not a problem at all*', however, over one third of respondents stated that it was either '*a very big problem or a fairly big problem*'. The majority of respondents, at 58.8%, believed that rubbish or litter was '*not a very big problem, or not a problem at all*' in the local area, compared to 40.3% of respondents who believed that it was '*a very big problem or a fairly big problem*'. The local satisfaction survey indicated that the majority of residents felt safest within their homes and immediate local areas (at 85.6% and 68.8% respectively). However, less than half of residents stated that they felt safe within Halton.

Local Attitudes towards Traffic Congestion and the SJB

20.6.123 Social research undertaken to date (detailed in Table 20.3) indicates that the SJB is regarded as an important aspect of daily life for residents in Halton. The majority of participants use the SJB at least once a week, predominantly travelling across by car for both local and wider journeys. The purpose of the crossings are for a variety of reasons including business trips, hospital appointments, visiting friends and families, shopping, leisure, work, education and general socialising.

20.6.124 Stage 4 (2004) of the social research identified that currently the majority of people (81%) who choose to travel by private vehicle across the SJB do so because it is the most direct route to

reach their destination. The greatest proportions of these respondents were those travelling on business journeys.

20.6.125 Business users of the SJB tend to cross by car or van to destinations in the North West region or further afield. Businesses participating in the Council's LTP survey (2004) viewed the SJB as important for their customers travelling to their business, employees' access to work, business trips, encouraging regeneration and delivery schedules. This highlights the importance of the SJB for local and regional businesses.

20.6.126 Stage 2 social research (2003) respondents were asked what the main problems associated with the SJB were. The problems raised included the following:

a. Congestion during rush hour periods;
b. Congestion due to breakdowns, accidents and road works (and a lack of alternative routes);
c. Safety concerns;
d. No advanced warnings of delays to allow alternative routes to be chosen;
e. Inadequate public transport links across the bridge;
f. Inadequate pedestrian and cycle crossing provisions;
g. Poor safety on access roads;
h. Poor lane signage;
i. Poor design of access roads; and
j. Inadequate lighting on approach roads.

20.6.127 Residents participating in the Stage 2 social research (2003) indicated that such problems have resulted in unpredictable journey times and delays across the river, which often create high levels of stress for drivers. In addition, due to the high levels of congestion, residents have chosen places of work, healthcare, social activities and shopping which avoid crossing the River. Access to essential facilities such as hospitals is often perceived to be hampered due to congestion.

20.6.128 Businesses participating within the Stage 2 social research expressed concerns regarding the impact of congestion on the timing of deliveries, sourcing of employees and, loss of trade. In addition, the effect of congestion on restricting economic development and investment in Halton was also an area of concern.

20.6.129 Research indicated that the wider travelling public often avoided congestion around the SJB preferring to choose alternative routes across the region, which often added to their journey times.

Summary

20.6.130 It can be seen from the social profile review that there are high levels of deprivation in Halton including poor health and high levels of unemployment within the Borough. Several vulnerable groups have been identified within the study area, including; older people, disabled, individuals/ families with long term limiting illness, unemployed, ethnic minorities, faith groups and deprived areas (using the overall IMD rank). The IMD (2007) statistics revealed that the most deprived areas in Halton are located close to the route of the Project (i.e. Riverside, Castlefields and Halton Lea).

20.6.131 Key employment areas within the Borough are noted both north and south of the River. There is a good range of services, primary schools, amenities and recreation/leisure facilities provided within the Borough both in Runcorn and Widnes. However, the provision of higher education establishments and hospital health care services are limited. It is important that residents have good access across the Mersey to key areas of employment, health facilities and places of further education and skills training if deprivation is to be reduced.

20.7 Effects Assessment

20.7.1 The impact assessment detailed below provides a summary of the 'Do Nothing' and 'Do Minimum' effect and a detailed assessment 'Do Something' effects.

20.7.2 The 'Do Nothing' assessment considers the key effects which the study area is likely to experience without construction of the Project. Effects are considered up to 2015, which is predicted to be the likely completion date for the Project. This summary is based on current policies and plans within the study area and a review of historic trends which are likely to continue into future years.

20.7.3 The 'Do Minimum' assessment considers the effects which the study area is likely to experience in a future year, taking account of routine and essential works to maintain network performance and accommodate National Road Traffic Forecast growth, but excluding substantive capital works. This assessment was based on information sourced from the Air Quality Chapter 19, the Noise Chapter 17 and the Transport Chapter 16.

20.7.4 The 'Do Something' assessment considers the effects which the study area is likely to experience with construction of the Project and further to the Project being operational. The assessment is based on the significance criteria previously noted within this Chapter. Aspects of the Project which are likely to affect social receptors are considered to be; changes to the local transport network, land take for the Project and tolling of the SJB and the New Bridge. A description of the Project, including tolling, is provided in Chapter 2.

Do Nothing Scenario – Summary of Effects

20.7.5 A review of current policies and plans (including the Council's UDP) within Halton has identified a number of strategies which are being implemented and may contribute towards the social and economic regeneration of Halton which are not associated with the Project. The NWDA's Regional Economic Strategy (2006) specifically identifies Halton as a target area to improve employability and encourage new businesses to the area. The Council's UDP (2005) outlines specific measures to improve Halton's economic development, improve housing stock, decrease the outwards migration from the Borough, protect existing environmental and cultural assets, increase job opportunities, improve town centres and shopping facilities and improve public transport by 2016. However, it should be noted that the UDP acknowledges that the Mersey Estuary is a constraint to regeneration and therefore the extent of regeneration possible without the Project will be limited.

20.7.6 As noted in paragraph 20.6.32 there is currently an increasing trend in jobs provided within the services sector and a decreasing trend in jobs provided in the manufacturing and construction sector in Halton. This trend has been noted through an increase in services jobs (as a % of total jobs in Halton) from 73.2% in 2002 and 80.6% in 2006. Conversely, construction and manufacturing jobs have fallen from 26.4% in 2002 to 19.3% in 2006. It is likely that this trend will continue without the development of the Project.

20.7.7 Claimant unemployment[16] within the Borough has also seen a recent decline from 5% in 2000 to 3.1% in 2005. This recent trend throughout the Borough is likely to continue in the future as national, regional and local policies seek to improve employability of residents and increase the number of businesses starting up and moving into the area.

20.7.8 he Council have aimed to increase the number of jobs within Halton by 10% in 2011 from the 2006 level. Research undertaken by the Liverpool City Region Economic Projections and Prospects (2007) has identified that employment within Halton and the neighbouring Boroughs is likely to increase, with the highest rates of increase being noted in Halton and Warrington.

[16] Claimant unemployment only includes those individuals who are eligible for jobseekers allowance

The employment forecasts undertaken for a 'do nothing' baseline assessment are presented below in Table 20.17.

Table 20.17 - Employment Forecasts within the North West under a 'Do Nothing' Scenario

Borough	2005	2010	2015	2020	% change 2005 to 2020
Halton	63	65	67	70	11.1
Warrington	127	131	137	144	13.4
Knowsley	63	64	65	66	4.8
Liverpool	255	260	266	271	6.3
St Helens	70	72	73	73	4.3
Sefton	116	119	121	123	6.0
Wirral	110	113	116	118	7.3

20.7.9 In addition to this target, a number of other health, employment and regeneration targets have been set by Halton's Community Strategy 2006 – 2011 including reducing the death rate of over 75s by 53%, increasing cultural and activity level take up of adults by 5% and increasing the average household income to more than 90% of the national average. These targets are not reliant on development of the Project and are aimed to be achieved regardless of the Project. Therefore, there will be no change in the potential of the Council for the delivery against these targets.

20.7.10 In light of the Lancaster University health study of Halton there is no current significant association between environmental pollution and self reported ill health. Consequently, there will be no change in effect from contamination to any receptors within Halton within the 'do nothing' scenario as no areas will be subject to disturbance through Project construction/ maintenance operations.

Do Minimum Scenario

20.7.11 Data obtained from the Transport Chapter 16 has identified that a 'do minimum' situation would result in increased congestion and increased vehicle journey times within Halton and the surrounding area. Vehicle numbers per weekday across the SJB are currently in the region of 83,667 (counted in 2006); however, due to the regeneration planned within Halton and the associated rise in car ownership, vehicle numbers per weekday across the SJB are likely to rise by over 10,000 to over 94,000 by 2015. An increase in vehicle numbers and lack of adequate river crossing facilities to accommodate this increase would lead to increased congestion and journey times when travelling through and within the Borough for social networking, employment and accessing services and facilities. This in turn would lead to increased driver stress and likelihood of road accidents occurring within the Borough. The Transport Chapter 16 identified that a 'do minimum' scenario would result in effects to road users of high negative significance.

20.7.12 As detailed within the Air Quality Chapter 19, effects to local air quality (concentrations of NO_2 and PM_{10}) within the future baseline (2015) scenario will not be significant. Pollutant concentrations are predicted below the AQS objectives. Despite the predicted rise in traffic flows over the same time period, the pollutant concentrations predicted for the 2015 Do-Minimum scenario are lower than those in the 2006 baseline scenario. These trends are likely to occur due to the implementation of more stringent emissions controls for vehicles and national control measures for emissions from background sources in future years.

Do Something Scenario

Local Attitudes towards the Proposed Project

20.7.13 In the social research (Stage 4) survey respondents were asked whether they considered that the New Bridge would affect their journey time and distance travelled. Approximately half of the respondents surveyed stated that they thought their journey time would improve if they used the proposed the New Bridge. Respondents who believed that there would be time savings incurred through using the New Bridge were primarily those making business trips and non-local journeys. Respondents who considered that no time savings would be incurred were primarily those making non business related and local journeys.

20.7.14 Social research (Stage 4) identified that residents, the wider travelling public and business participants felt strongly that there was a need for a new crossing over the River. This research reflects the Stage 2 social research postal survey (2003) results, which identified that 96.5% of respondents strongly agreed that a new crossing was needed. However, local stakeholder groups interviewed within the Stage 2 research were more wary of the idea of a new bridge, due to concerns that a new crossing would increase traffic congestion in Halton.

20.7.15 Survey respondents participating in stage 4 social research exercises were asked to consider which bridge they would prefer to use should both bridges be available to them, incurring the same journey time. Over two fifths of respondents stated they would continue to use the SJB, approximately one quarter would use the New Bridge and approximately one third had no preference. Leisure travellers and people making local journeys were most likely to continue using the SJB, whereas commuters and people making non-local journeys were more likely to prefer the New Bridge. Respondents were informed of a New Bridge across the River, but not provided with detailed route information. Different levels of tolling (from £0 – £2) were suggested to inform how much respondents were likely to pay for certain journey time savings.

20.7.16 Social research (Stage 7) respondents were provided with detailed route information and informed that tolls would be in a similar to toll levels on the Mersey Tunnels. This research identified that respondents had mixed feelings on the impact of the Project. View points differed when respondents considered the construction and operational phases of the Project. Potential impacts identified by respondents highlighted the following areas of greatest concern during the construction of the Project:

a. Transportation and access; specifically increased congestion and road closures
b. Construction activities/ traffic; with specific reference to increased traffic/ congestion, increase in HGV, health and safety impacts of construction traffic and the visual impact of construction work;
c. Health and safety issues;
d. Threat to local wildlife and habitats;
e. Noise and air pollution; and
f. Potential adverse effects to the local economy through relocation of businesses and disruption of the local road network discouraging business from the local area.

20.7.17 In addition to the above mentioned concerns, respondents also noted some beneficial effects which may result from the construction of the Project. These resulted primarily from the generation of local employment through construction activities.

20.7.18 Survey respondents recognised that several beneficial effects may result further to the completion of the Project. The key areas highlighted included the following:

a. Improve access to education and training facilities, health services, family and friends, shops, community and leisure facilities;
b. Aesthetic improvements to the local area; and

c. Positive impact on the local economy.

20.7.19 The majority of respondents felt that tolling of the New Bridge and the SJB would have a negative impact on local people and businesses. Social research (2004) identified, that the majority of respondents were not in favour of road charging due to the belief that they already pay for use of roads through road tax, council tax and fuel tax. Some respondents noted that tolling would be acceptable where an alternative toll-free route was available or on routes which are not travelled frequently. It should be noted that specific details of the route of the New Bridge and the amount likely to be tolled were not available to respondents participating within this research.

20.7.20 Tolling research undertaken in 2004 (Stage 3) also highlighted that tolling has the potential to cause severance of communities on either side of the River. Respondents noted that they may choose to reduce cross river trips for social, leisure and shopping purposes and look for other alternatives which did not involve paying tolls. Individuals noted that they were unlikely to be as spontaneous in undertaking social trips to visit friends and families if tolls were implemented.

20.7.21 A number of business representatives from both large and small business in close proximity to the SJB were interviewed during the Stage 3 social research. Opinion of Project tolling was split between businesses who expressed concern that effects would be so high that they would have to close down, to those businesses which believed that the New Bridge would be economically advantageous. Effects of tolling were deemed to be greater by survey business representatives in Widnes than Runcorn, due to the requirement of businesses to cross the River more frequently from Widnes. Businesses were also concerned that tolling may decrease the existing labour pool for jobs as individuals would be less willing to pay to access their place of work.

20.7.22 Stage 3 research identified that the majority of respondents agreed a New Bridge was required to improve future prosperity of the Borough. As can be expected, most respondents resented the idea of having to pay tolls. However, using a preference ranking of proposed scenarios it was identified that the majority of individuals would prefer to have both bridges tolled in preference to no new bridge at all.

Do Something Scenario – Construction Effects

Change in Population Structure

20.7.23 As stated in paragraphs 20.5.32 to 20.5.34 a change in population structure through construction of the Project was assessed using criteria outlined by Burdge (2004). This criterion states that the impact to the population structure will be significant if the number of workers employed per month is >40, >25% of the workforce or the construction period is >6months.

20.7.24 A number of job opportunities will be provided through construction of the Project. Economic studies undertaken for the Project have estimated that a maximum of approximately 500 jobs will be created through construction of the Project and that approximately 50% of these jobs will be available to local residents (i.e. 250 jobs). It is predicted that throughout the construction period >40 workers will be employed per month (with a peak workforce of 500). In addition, the construction period will last approximately 40 months, which is more than 6 times longer than that stated in the Burdge criteria.

20.7.25 In line with Burdge (2004) (Ref. 11) there will be a significant impact to Halton's population structure as a result of the construction phase due to the fact that the Project exceeds all of Burdge's significance criteria.

20.7.26 The creation of local job positions may encourage those residents with the appropriate skills/ qualifications to remain within the area and seek jobs provided by the Project. However, this beneficial impact to Halton's population structure through encouraging local residents to remain

in the Borough will be temporary as the majority of jobs will only be provided throughout the construction period (i.e. 40 months).

20.7.27 The number of direct jobs created by the Project will be supplemented by additional jobs in the local supply industry and may result in associated beneficial effects to Halton's economy. Additional jobs and expenditure by workers within the Borough can not be quantified. However, it is likely that economic benefits will be noticed throughout the construction phase. Economic benefits are likely to result from a number of sources including expenditure within the accommodation, food and drink and leisure and recreational service industries. Effects to Halton's economy will occur as an indirect result of the Project. Effects of expenditure are likely to be restricted to those wards surrounding the Project Area and therefore are considered to be of low magnitude. Economic benefits to the Borough will benefit a relatively small number of businesses and are therefore considered to be of low importance. Consequently, it is considered, in on a prudent basis, that unenhanced effects to Halton's economy resulting from an influx of 250 workers and provision of 250 job opportunities to local residents will be of **low positive significance**.

20.7.28 The creation of 250 Project job opportunities to residents outside of Halton may result in the influx of up to 250 new workers into the Borough. The potential exists for workers to relocate their families to Halton for the duration of the construction period. However, this is unlikely and the influx of workers will predominately comprise single men. It is likely that the majority of construction workers moving into the Borough for work will reside within residential compounds built for the project. These compounds are likely to be located in close proximity to the Project. Construction worker residential compounds are often located on disused, brownfield sites and often comprise two berth caravans (to accommodate two individuals) with a crew room and canteen to be shared by all workers. Individuals employed during the construction period may also choose to reside off site and rent properties within Halton. However, due to the temporary nature of construction work and the additional cost involved in comparison to construction caravans, the number of individuals renting properties is likely to be minimal.

20.7.29 Due to the temporary nature of construction activities it is unlikely that a Project general Practitioner (GP) will be specifically assigned to the construction workers. In most cases, contractors will arrange for the construction workers to use local facilities, such as GPs and hospitals within the wards surrounding the construction compounds. Therefore, an influx of people into the area is likely to result in increased pressure on existing community facilities and services, including hospitals and GPs. Individuals will predominantly use services and facilities in close proximity to their residence (i.e. within the LSOAs in which they reside). However, in some circumstances, where a lack or substandard facilities exists, individuals will travel into neighbouring wards. Therefore, receptors which may be affected by a change in population will be all residents of Halton, with specific regards to those communities residing near to the Project.

20.7.30 Construction workers will predominantly reside in close proximity to the Project with the majority living within 1000m from the construction route. The construction compounds and majority of construction route are located in the wards of Riverside and Castlefields. The most deprived LSOAs within Halton for overall deprivation (within the IMD worst 4%), and therefore of high sensitivity to an influx in workers, are within the wards of Riverside, Castlefields, Windmill Hill, Halton Lea, Halton Brook, Appleton and Kingsway. Approximately half of LSOAs within Halton are designated within the worst 20% for overall deprivation and therefore effects to the rest of Halton are considered of moderate sensitivity to an influx in workers.

20.7.31 An increase of 250 workers only equates to an actual population increase of 0.2% on top of Halton's 2006 National Statistics population estimate. It should be noted that construction work is likely to be split into phases and therefore not all 250 workers are likely to be relocated to Halton at the same time during the whole of the construction phase (40 months). However, the

peak workforce during the Project will be 500 which will mean that at one stage during the Project there is likely to be a population increase of approximately 0.2%. An increase of this scale to Halton's population is considered to be of moderate magnitude in those wards surrounding the Project (specifically Riverside and Castlefields) and of low magnitude to the rest of Halton. Consequently an increase in Halton's population and subsequent pressures on existing facilities and services will be of **moderate negative significance** to wards surrounding the Project and of **low negative significance** to rest of Halton.

20.7.32 An influx of approximately 250 people (predominantly men) to the Borough may result in an increased feeling of insecurity amongst Halton residents. It should be noted that feelings of insecurity as a result of an increase in workers within the Borough will affect the perception of safety within the local area and not necessarily the actual safety within the local area. However, as the perception of safety within a local area is an indicator of quality of life and a perceived reduction in safety can increase levels of stress, any perceived increase in feelings of insecurity have consequently been considered within this assessment.

20.7.33 It is likely that the presence of unknown workers from outside of the Borough may reduce the feeling of safety for local residents within their homes or their local area. Despite the fact that majority of construction workers are likely to reside within construction compounds, it is also likely that they will use local facilities and visit local areas when they are not working their shifts. At present, the Council's Local Area Satisfaction Survey (2000) has shown that approximately one tenth of residents do not feel safe in their home and one fifth of residents do not feel safe in their local area. The potential for this feeling to increase will be of moderate magnitude to those individuals and families living in close proximity to the Project and of low magnitude to individuals and families within the rest of Halton. The receptors which will be most affected through an increased feeling of insecurity will be individuals and families within communities and LSOAs surrounding the Project (and associated construction camps) as it will be these areas where the majority of workers will be present. However, the potential exists for construction workers, who have moved into the Borough for the duration of the construction period, to visit other areas within the Borough and therefore individuals and families within the rest of Halton may also feel less secure within their homes and local areas. Consequently, both of these receptors are deemed of high importance. The potential for an increased feeling of insecurity amongst Halton residents will be temporary and short term in effect as it will only occur throughout the duration of the construction period. Consequently, the potential for individuals and families in close proximity to the Project to feel insecure due to the presence of additional people within the Borough will be of **moderate negative significance** and of **low negative significance** to individuals and families within the rest of Halton.

Change in Employment Opportunities

20.7.34 It is estimated that a maximum of approximately 500 jobs will be created through construction of the Project and that approximately 50% of these jobs will be available locally. It is likely that only 50% of jobs will be available to local residents due to the level of specialist jobs which will be created by the Project and the existing skills gaps of these positions within Halton. Furthermore, it is likely that the contractor will fulfil a number of specialist positions internally. It is likely that the general positions can be filled by local residents due to the lack of high level skills/ qualifications/ training required by these positions. Jobs and job estimates which are likely to be provided by construction of the Project are detailed in Table 20.18 below;

Table 20.18 - Project Construction Jobs

Specialist Jobs	General Jobs	General Job Estimates
Management and site engineers	Administration staff	25
Quantity surveyors	General site operatives	50

Land surveyors	Catering and support staff	25
Piling engineers and operatives	Joiners	25
Cable stay and stressing engineers	Steel fixers	25
Cable stay and stressing operatives	Scaffolders	25
Construction foremen	Crane drivers	15
Steel erectors	Lorry drivers	20
Material testing technicians	Excavation plant drivers	25
Various specialist contractors (including safety fences, parapets, white lines, lighting, signs, blacktop, joints and sealing)	Concrete batching plant staff	15

20.7.35 Receptors which may be affected by a change in employment opportunities are appropriately skilled/ qualified individuals seeking employment within Halton, existing employees who travel to Halton for employment and also those who live locally and work in Halton.

20.7.36 As shown in Figure 20.8 the most vulnerable LSOAs with regards to employment deprivation (i.e. within the worst 4% nationally) are in the wards of Riverside, Castlefields, north Mersey, Hough Green, south Kingsway, south Appleton, east Halton Brook, east Grange, central Halton Lea and Windmill Hill. The employment deprivation scores within these areas are also reflected by the 2001 % unemployment rates shown within these areas.

20.7.37 Employment opportunities provided through construction of the Project will be predominantly located within the construction route, which includes the employment deprived wards of Riverside, Castlefields and Mersey. Job opportunities provided within these wards will be of high importance to the appropriately skilled/ qualified individuals seeking employment. Due to the high number of job opportunities which could be provided over the whole study area (including those areas which have been specifically identified as vulnerable to unemployment) the effect of employment opportunities will of high magnitude. Employment associated with the construction phase will be temporary and short term in nature. Therefore, a change in employment opportunities during the construction of the Project to appropriately skilled/ qualified individuals seeking employment will be of **high positive significance**.

20.7.38 The 2001 National census statistics identified that there are currently 85,645 people of working age in Halton. Of these people, 54,521 are economically active, and of these 3,880 are unemployed. Therefore, based on the 2001 census data, the addition of 250 jobs to local residents provided by the construction of the Project could potentially provide 6.44% of unemployed persons within Halton with jobs. However, due to the specific nature of jobs which will be provided, it is unlikely that employment levels achieved by unemployed persons would realistically be this high.

20.7.39 The Council have aimed to increase the numbers of jobs in Halton by 10% by 2011, as defined in 'A Community Strategy for a Sustainable Halton 2006 – 2011' (Ref. 6). Based on the 2006 Nomis Employment statistics (Ref. 19) for Halton (of 54,000 jobs) the Project will contribute towards this increase in jobs in Halton by approximately 0.9%.

20.7.40 Construction of the Project has the potential to result indirectly in additional local jobs through the economic benefits provided by construction jobs. These jobs, and indeed associated economic benefits to Halton's economy will result from increased expenditure and demand for additional services, for example within the food and drink industry. At present the number of additional local jobs can not be quantified, but effects will be of positive significance to appropriately skilled/ qualified individuals seeking employment within the Borough.

20.7.41 Social research (2007) Stage 7 focus group consultation work identified that respondents from all groups noted that construction of the Project has the potential to generate employment within the local area and that local labour should be used where possible. Respondents noted that construction of the Project provides a large opportunity to provide local labourers with jobs and new skills. Employment enhancement measures to optimise the number of jobs available to local residents are outlined in Section 20.8.

20.7.42 The Project may result in disruption to existing businesses and their employees through Compulsory Purchase Orders (CPOs). Data obtained from the Council indicates that approximately 72 businesses, employing a total of approximately 1,000 individuals may be affected through CPOs. These businesses are located within three main areas as detailed below:

a. Ditton Road – including a number of established businesses such as Gussion Transport and S. Evans scrapyard;
b. Catalyst Trade Park – which is predominantly occupied by single storey, fairly modern light industrial units; and
c. Astmoor Industrial Estate – including a number of industrial buildings and units.

20.7.43 The wards of Castlefields and Riverside will experience the greatest extent of demolition. As shown in Figure 20.8 these wards have been identified within the worst 4% nationally for employment deprivation, based on the 2007 IMD and have unemployment rates higher than the national, regional and Borough average. Therefore, the areas which are proposed to be obtained via CPOs are all located in wards with high levels of employment deprivation.

20.7.44 Social research (Stage 7) has highlighted that several research participants were concerned over the potential for job losses through business closure which may result further to CPO. Furthermore, individuals were concerned that even if businesses relocated, they may be situated in a non practicable commutable area. Respondents of the social research surveys noted that their place of employment may be demolished, that businesses may not be able to continue operating and that jobs may be lost. Due to the high sensitivity of employment issues within the wards adjacent to the Project it is considered that any job losses or closure of businesses would be of high importance to the area. The effects resulting from a loss in commercial property will be a medium term effect, as businesses which are displaced with the requirement of CPOs may relocate within Halton. Conversely, it is also possible that businesses will either close down or relocate out of the Borough. The social magnitude of effect to a permanent loss of commercial property will be high. Consequently the potential for job losses resulting from CPOs will be of **high negative significance** to existing employees of affected businesses within Halton.

Change in Perception of, or Actual Health and Safety Issues for Individuals in Halton

20.7.45 Health deprivation within Halton has been identified as significantly below both the regional and national average. Consequently, any effects to residents in Halton which may result in a change to existing levels of health will be of high importance with specific regards to the vulnerable groups of; the disabled, older people and individuals/ families with long term limiting illness (LTLI).

20.7.46 Health/ disability rates within Halton have been defined by the 2007 IMD health/ disability rank. Approximately 30% of Halton's population are ranked within the worst 4% nationally for health deprivation. These residents are predominantly located within the wards of Riverside, Castlefields, Ditton, Halton Brook, Windmill Hill, Halton Lea Hough Green, Grange, Halton View and Norton South. The worst 20% LSOA for IMD (2007) health deprivation are shown in Figure 20.14.

20.7.47 The national average for the percentage of the population which defines themselves as having a LTLI is 18%. Therefore, LSOAs with >18% of individuals and families classifying themselves as having a LTLI were designated as vulnerable. LSOAs with >18% of individuals and families with LTLI were located in the wards of Hough Green, west Farnworth, Broadheath, Kingsway, Appleton, Halton View, Hale, Ditton, Riverside, Castlefields, Mersey, Heath, Grange, Halton Brook, Windmill Hill, Halton Lea, Norton South and north east Daresbury as shown in Figure 20.14.

20.7.48 The majority of older people residing in Halton are primarily located within the peripheral wards of Ditton, Heath, Hale, Halton View, Appleton and Farnworth as presented in Figure 20.5.

20.7.49 For the purposes of this assessment these LSOAs (defined within paragraphs 20.7.45 to 20.7.48) are defined as highly sensitive communities with regards to health deprivation and have been focused on for the assessment of health effects.

20.7.50 In line with the Construction (Design and Management) (CDM) Regulations (2007) construction works will not commence until a health and safety plan and health and safety file have been prepared for the proposed works. The health and safety plan will include the assessment of risks and preventative measures to secure the health and safety of everyone carrying out the construction work and all others who may be affected by it. Receptors who may be affected through construction works include communities residing within and bordering the Project construction route, individuals travelling through the area and individuals working within or adjacent to the construction route. All receptors are considered to be of high importance. The potential exists for harm to occur to receptors during all construction works including those from associated vehicle and plant movements throughout the construction route and associated construction compound areas. The main construction compound areas will be protected by high security fences and manned by 24 hour security staff. Despite the serious nature of harm which could occur from construction related health and safety incidents to receptors throughout the construction period, the actual likelihood of accidents occurring is minimal due to the strictly controlled health and safety procedures that must be required for the Project. The implementation of a well maintained and regularly updated health and safety Project plan and security provisions will ensure that the impact of health and safety incidents will be of low magnitude and therefore of low negative significance.

20.7.51 A review of the Contamination of Soils, Sediments and Groundwater Chapter 14 was undertaken to assess the health risk of the Project from existing contamination to social receptors. Site investigations concluded that due to the historic industrial nature of Halton, a number of areas contain high levels of pollutants based on the CIRIA (2001) Report C552, Contaminated Land Risk Assessment – A Guide to Good Practice. Construction of the Project has the potential to expose these pollutants and cause adverse risks to human health. However, further to the implementation of appropriate mitigation measures there will be no significant effects to social receptors.

20.7.52 The assessment given in the Waste ES Chapter 15 identifies several potential impacts throughout the construction phases of the Project which could potentially impact the actual health and safety of Halton residents. Impacts were identified to arise from the handling, storage, transportation, discharge, re-use and recycling processes of Project related wastes. Potential effects resulting from these activities are stated to comprise noise and vibration issues, air quality (including dust and odour), visual perceptions of the area, introduction of litter and pests to the area and other health and safety issues. The only residual effect, further to implementation of effective mitigation measures is considered to be the generation of dust from the handling of waste to site operatives and individuals and families surrounding the Project. This effect was noted of **low negative significance** to human receptors within 200m of construction areas A – I. This effect is detailed further within the Air Quality Chapter 19. The Air Quality Chapter 19 also highlights that there will be residual effects of **low negative**

significance to human receptors within 200m of construction areas A – I due to construction traffic emissions. Furthermore, effects of **moderate negative residual significance** resulting from road traffic emissions due to local road network disruptions have been identified to human receptors within 200m of construction areas A – I. These areas are located in the IMD (2007) worst 4% LSOA for health deprivation and are consequently of high sensitivity.

20.7.53 The assessment described in the Surface Water Quality ES Chapter 8 identified that construction of the Project may result in some impacts to social receptors as a result of mobilised contamination, a decrease in water quality and increased sediment loads within the water column. Social receptors which may be affected by potential contamination within surface water includes all receptors who may use the watercourses within Halton for recreational purposes (e.g. boating and fishing) or who may accidentally ingest water from the watercourses. The assessment in the Surface Water Quality ES Chapter has identified that the watercourses which are most likely to be adversely affected through the construction of the Project will be the River and Stewards Brook. However, adoption of management and physical techniques highlighted in the Surface Water Quality ES Chapter will result in the elimination of effects to identified receptors.

20.7.54 The Noise Chapter 17 has identified that construction of the Project will result in residual negative effects to both residential and recreational areas in close proximity to the Project. Some of these temporary effects were noted of **high negative significance** to individuals on Wigg Island and potentially within Construction Area G and at Woodside Primary School. The remaining noise effects to individuals within Halton were noted to be of **low or moderate negative significance**.

20.7.55 The timing of construction work was debated during the focus group studies (Social Research 2007) with regards to the level of noise and disruption resulting from the Project activities. Responses conflicted between those who regarded noisy construction activities should be undertaken at night as the greatest disruption to traffic and daily movements would occur in the daytime, whereas residents living in close proximity to the alignment route were concerned over the level of noise and disruption to households, if construction work occurred at night. The CMR (Appendix 2.1) has identified that that majority of noisy construction activities will generally be undertaken during the day. This will ensure that the quality of life and disturbance to residents will be kept to a minimal during the evening and night time hours.

20.7.56 The assessment reported in the Landscape and Visual Amenity Chapter 12 has identified that the receptors which will be most affected through changes in perception of landscape quality by the Project will be individuals and families residing in close proximity to the Project. Construction of the Project will progress throughout the construction period, with all structures being completed by the opening year of 2015. Perception of the Project to the existing landscape character is highly subjective; however it is not considered that negative perceptions of the Project will lead to any change in perception of, or actual health.

20.7.57 Social research (Stage 7) identified that a number of residents within Halton were concerned over how the local area will look whilst construction was being undertaken. Residents noted that '*its going to be horrendous isn't it. Its going to be a right eyesore whilst constructed*' and that '*I'm concerned about how the areas going to look, cause we live here*'. Based on the residents' viewpoints participating within the social research (2007), the effects of construction to the visual perception of the area will be predominantly negative.

20.7.58 Effects to health during the construction phase due to disruptions and closures of the local transport network may result from a decreased uptake in exercise from pedestrian and cycle trips and a change in access to hospitals, health centres (i.e. GPs, dentists etc.) and leisure facilities. The Transport Chapter 16 has identified that effects to pedestrians and cyclists will be of moderate negative significance in construction areas A - H. Disruptions, diversions and

closures of footpaths and cycleways resulting from Project activities may reduce the usage of these links due to a decrease in journey ambience, through unsightly construction activities, an increase in noise levels and a potential decrease in the perception of safety. Users of affected footpaths and cycleways (as identified in paragraphs 20.7.66 and 20.7.68) have not been quantified. However, as noted within the Transport Chapter 16, alternative links will be provided where footpaths are closed. Therefore it is considered that individuals are likely to only discontinue use of these links in recreational, unessential purposes. Health effects through a reduction in exercise from discontinued use of these transport links is only likely to occur to unessential journeys crossing affected links and will therefore be of low magnitude. Effects will be short term and temporary and will result indirectly from Project activities. Effects to the health of individuals within Halton will therefore be of **low negative significance**.

20.7.59 No health centres, GPs or hospitals were identified in close proximity to affected footpaths and cycleways and therefore access to these facilities via these transport links will not compromise the health of individuals within Halton. Effects to local road users using private vehicles and public transport are likely to experience effects of moderate negative significance within construction areas A - I. Social research of travelling patterns to health centres GPs and hospitals, as shown in Figures 20.15 and 20.16, identify that individuals predominantly use health centres and GPs within their residing ward, but several inter-ward trips are made to hospitals. Effects to the travelling public using the local road network in construction areas A – I were noted of moderate negative significance by the Transport Chapter 16. The main affected thoroughfare which will affect inter-ward trips to hospitals will result from disruptions in construction area I – the SJB. In addition to any disruption in access to health facilities, health effects to car users within Halton may occur through increased stress resulting from disruptions, diversions and road closures. Health effects to the travelling public (car and bus users) resulting from these disruptions are likely to be of **low negative significance**.

Changes in Access to Facilities and Social Networks around Halton

20.7.60 It is considered that all travelling social groups within Halton will be affected through a change to the local transport network as a result of construction of the Project. These receptors consist of all groups within the travelling public (i.e. car users/ bus users/ pedestrians and cyclists). Transport related issues associated with the construction of the Project will primarily occur within the designated construction route.

20.7.61 A large proportion of Halton's population do not have access to a car/ van. Figure 20.13 shows that the Project route passes directly through the LSOAs within the wards of Riverside and Castlefields, which have the least access to cars/ vans (>45% of residents). Therefore residents within these areas will be more sensitive to any disruption to footpaths, cycleways and bridleways and any disruption to the local public transport network within these areas.

20.7.62 Data obtained from the Transport Chapter 16 has identified that car users will be affected through disruptions and road closures resulting from construction activities of the Project. Car users within the wards of Riverside, Castlefields, Halton Brook, Heath, Grange and Beechwood (construction areas A,B,C,D, E, F,G, H and I) were noted to experience effects of moderate negative significance.

20.7.63 Data obtained from the Transport Chapter 16 shows that disruptions to pedestrians, cyclists, equestrians and bus users will occur as a result of construction activities throughout a number of wards bordering the Project. Halton wards identified with above average levels of no car/ van ownership were noted in Ditton, Hough Green, south Kingsway, south Halton View, Riverside, Castlefields, Mersey, Grange, Halton Brook, Windmill Hill, Halton Lea and north Norton South. As shown in Figure 20.13 the majority of the Project route traverses directly through these wards. Consequently, pedestrians, cyclists and bus users within the vicinity of the Project will

be highly vulnerable to any disruptions to footpaths, cycleways and buses as residents within these wards will be more dependent on these transportation methods.

20.7.64 The Transport Chapter 16 noted that effects to bus users through road closures, disruptions and traffic management (including the rerouting of services along the A557 Widnes Eastern Bypass within the wards of Mersey and Heath) resulting from construction activities were deemed of moderate negative significance in construction areas A,B,C,D,E,F,G and H). Effects to bus users in construction area I (Mersey ward) will be of low negative significance.

20.7.65 There will be no effect to public use of railways as a result of construction of the Project.

20.7.66 The Transport Chapter 16 concluded that disruptions, closures and rerouting of footpaths will incur effects of moderate negative significance to pedestrians at the locations detailed below:

a. PRoW linking Cross Street and Ashley Way with Spike Island and the Transpennine Trail in the ward of Riverside
b. PRoW across St Michael's Golf Course within the ward of Riverside;
c. PRoW along the Manchester Ship Canal and footpaths along Wigg Island in the ward of Castlefields;
d. PRoW along Astmoor Road within the ward of Castlefields;
e. Prow along the Bridgewater Canal within the wards of Castlefields and Halton Brook; and
f. PRoW across the Central Expressway within the wards of Castlefields, Halton Brook, Grange and Halton Lea; and
g. PRoW east of the new Lodge Lane Junction.

20.7.67 All of the above footpaths are located within areas with low car/ van ownership and are therefore considered highly important. The effect to users of the remaining footpaths within Halton, including the SJB, is not considered to be significant.

20.7.68 The Transport Chapter 16 also concluded that the effect to cyclists through cycleway closures and disruptions will be of moderate negative significance at the locations detailed below:

a. Cycleway at Ditton roundabout and Victoria Road within the ward of Riverside;
b. Cycleway along the Manchester Ship Canal and cyclepaths along Wigg Island in the ward of Castlefields;
c. Cycleways across the Central Expressway within the wards of Castlefields, Halton Brook, Grange and Halton Lea;
d. Cycleway along Astmoor Road within the ward of Castlefields;
e. Cycleway along Bridgewater Canal within the ward of Castlefields;
f. Cycleways linking the ward of Halton Lea with Halton Lodge in the ward of Grange;
g. Cycleway access to Spike Island within the ward of Riverside; and
h. Transpennine Trail within the ward of Riverside.

20.7.69 These cycleways, like the footpaths noted in paragraph 20.7.66, are all located in areas of low car/ van ownership and consequently users are considered of high importance. Further to effective mitigation (as detailed within the Transport Chapter 16) there will be no significant effects to cyclists using the SJB.

20.7.70 Construction activities may result in disruption to existing businesses and employees within Halton, through disruption to the local road network. All existing employees within Halton are considered to be of high importance. The potential for effects to occur is considered to be of moderate magnitude, as a number of employment areas have been identified in close proximity to the Project construction route. Road disruptions and construction activities may result in consumers not utilising specific businesses, as in some cases, if the route to access the area of business has been disrupted or closed, consumers may assume that the business is not

operating or, through fear of route uncertainty and an increase in journey travel time, an alternative business may be used.

20.7.71 Construction activities have the potential to disrupt the daily transport/ delivery movements of businesses through disruptions to the local road network. Furthermore, increased noise and vibration associated within construction activities may cause disruption to the daily operations of businesses including to employee concentration. These effects will be temporary in nature, as they will only occur during the construction period and will be short lived. However, due to the extent of area which may be affected, effects to existing employees are considered to be of **moderate negative significance.**

20.7.72 The extent of travel which is undertaken by individuals to attend specific facilities is dependent upon the number and standard of facilities close to the individual's home. Respondents interviewed within Social Research Community Facilities Report (Stage 5) identified that social trips were primarily undertaken on a weekly or monthly basis (of 42.1% and 39.6% respectively). Individuals were often noted to travel to community facilities outside of their residing ward, and therefore the effect of inter ward disruption must be considered within the assessment. Respondents noted that the primary method of transport to reach social locations is via a car/ van (at 46.1%) with 21.7% walking.

20.7.73 Stage 5 social research identified that a significant proportion of journeys are made by residents within Halton over the SJB in order to access hospitals. The Community Facilities report identified that of these journeys across the SJB to access hospitals over 70% were made by private car/ van and over 20% were made by bus. However, 84% of respondents only visited the hospital 'either once or twice a year or less frequently'. Therefore any disruptions to roads near the hospital which may alter access will be of limited significance for the majority of residents due to the low frequency of trips made. Due to the large catchment area which the hospitals within and surrounding Halton cover and the high extent of health deprivation which is experienced by many wards within Halton, any change in access to hospitals will be of high importance.

20.7.74 In contrast to hospitals, fewer trips were made across the River to access local GPs and health centres. The only areas where trips were noted across the River to access health facilities were between Halton View, Appleton and Kingsway to Halton Brook, Grange and Heath and Castlefields, Halton Lea and Beechwood. Residents accessing local GPs and health centres also stated that they were less reliant on private vehicles than when accessing hospitals, with less than 60% using a private car/ van, 24.6% walking and 15.9% using public transport. However, 35% of residents stated that they undertake trips to GPs and health centres more frequently than hospitals (i.e. weekly or monthly). Therefore, delays and disruptions resulting from construction activities to the local road network would impact fewer individuals, although they would be affected more frequently.

20.7.75 Consequently, receptors which may be affected through a change in access to hospitals and health centres are the travelling public.

20.7.76 Social research (Stage 5) identified that the majority of individuals within Halton access health centres close to where they live. Approximately half of these individuals access health centres by car/ van, one quarter by walking and 15% by bus. Due to the wide distribution of health centres across Halton, it is considered that all residents within Halton may potentially be affected through a change in access to these essential services. Results obtained from the Transportation Chapter 16 show there will be effects of moderate negative significance to car and bus users in construction areas A – I as a result of construction activities. Effects will result from delays to journey times, alterations to travel plans, driver stress and an associated change to individuals` day to day movements. However, effects of this scale will not be incurred by all residents in Halton as only a small number of health centres have been identified adjacent to

the construction route, as shown in Figure 20.14. Furthermore, as shown through Social Research, residents predominantly access facilities within their residing ward (with the exception of hospitals) and therefore long distance trips across the Borough to access health centres is unlikely. Some health facilities which have been specifically identified in close proximity to the Project include The West Bank Medical Centre and Newton Health Centre within Riverside and Tower House GP in Mersey.

20.7.77 Consequently, the change in access to health centres, GPs and hospitals will be of low magnitude to all receptors and of **low negative significance** to the travelling public – car and bus users.

20.7.78 Disruptions to footpaths and cycleways will be isolated occurrences and are not located in thoroughfares to the identified GPs, health centres and hospitals. Furthermore, diversionary routes will be provided where footpaths will be temporarily closed as a result of the Project. Therefore, access to health facilities via footpaths and cycleways will not be significantly affected throughout the construction phase and will not compromise the health of local residents through any change in access.

20.7.79 The importance of accessing places of education was highlighted by the Social Research Community Facilities Report (Stage 5). Research established that over half of survey respondents travelled to an education centre daily, with nearly nine in ten respondents travelling to a centre at least once a week. Of these respondents, over half accessed education centres by car and over one third by walking. Therefore, receptors who may be affected through a change in access to education establishments are the travelling public. All of these individuals are considered to be of high importance.

20.7.80 Social research identified that a '*significant number of trips that involve crossing the river are made to sites of higher education*'. The extent of trips recorded by research participants is presented in Figure 20.12. The five identified sites of further education in Halton, which residents noted they make significant trips across the Mersey to access, are located in the wards of Heath (south of the Mersey), Kingsway and Farnworth (north of the Mersey). As previously noted within paragraph 20.6.58, further education facilities are of particularly high importance within Halton due to the fact that recent statistics have shown that the number of individuals educated to NVQ level 4 and above within the Borough is below both the regional and national average. Consequently, a concerted effort needs to be made to ensure that access to these facilities is not hindered and that individuals are not dissuaded from attending these facilities. Despite the fact that sites of further education are not located in close proximity to the Project, the magnitude of effect to users of the local road network will be moderate due to the high level of inter ward trips made (specifically those which cross the River). Although not detailed within the social research, inter ward trips are also more likely to occur to special schools, due to the specific nature of these facilities. Special schools are located in the more peripheral wards in Halton of; Broadheath, Halton View and Heath and are shown in Figure 20.9. Effects to users of further education facilities and special schools will indirectly result from disruptions and diversions on the local road network during construction activities as detailed within the Transport Chapter 16. Due to the distances travelled to further education facilities (as shown in Figure 20.12) and the likely distances travelled to special schools, receptors which may be affected through a change in access are considered to be the travelling public (car and bus users). Any change in access to further education facilities and special schools will be temporary and short term in nature, as effects will be associated with the construction phase. Consequently, individuals accessing further education facilities and special schools crossing the River via the SJB and travelling in close proximity to the Project via car and bus may be subject to disruptions of **moderate negative significance** on the local road network as a result of construction activities.

20.7.81 Education establishments which have been identified in close proximity to the Project are predominantly primary schools. Social research has identified that individuals predominantly use primary and secondary schools close to their residing ward. Individuals accessing primary and secondary sites of education will therefore only be undertaking short intra ward trips and consequently receptors which will be affected throughout the construction phase by changes to the local road network are the travelling public. As individuals accessing these education facilities, as shown in Figures 20.10 and 20.11 will not be travelling far along the local road network, the magnitude of effect will be low. As noted above in paragraph 20.7.80, effects to users of primary and secondary education facilities will result indirectly from disruptions to the local road network. However, effects will be short term and temporary in duration as they are associated with construction activities. Consequently, the effect of the Project to the travelling public accessing primary and secondary education facilities by car and bus will be of **low negative significance**.

20.7.82 Disruptions to the cycleway and footpath network as a result of construction activities have also been considered with regard to a change in access to education establishments as over 30% of individuals' access places of education via walking, as shown in through social research detailed below in Table 20.19.

Table 20.19 - Mode of transport used to access education facilities within Halton (2005)

Mode of Transport	Percentage of Respondents
Car/ van	50.6
Walk	39.3
Bus	7.9
Train	2.2

20.7.83 Several footpaths and cycleways may incur disruptions as noted within paragraphs 20.7.66 and 20.7.68. However, the majority of these disruptions will not occur in main routes to education establishments and therefore effects will be of low magnitude. Consequently the effect of footpath and cycleway disruptions to a change in access to education establishments will be of **low negative significance.**

20.7.84 A number of other services and facilities are presented in Figure 20.17. This Figure shows that access to a number of these areas could be affected throughout the construction period, via disruptions to the local road network, footpaths and cycleways. In addition to these identified facilities the travelling public use the transport network within the Borough to travel within and across Halton to visit friends and family. Effects to the road network, footpaths, cycleways and bus routes within Halton will primarily occur within the construction route. Consequently, effects to the travelling public will be of moderate magnitude, with specific effects occurring to individuals either residing in, or visiting areas, in close proximity to the Project. Disruptions caused through construction activities may result in individuals and families altering their social behaviour as a result of fear of route uncertainty, driver stress, an increase in journey times through delays, diversions and road disruptions, and closures and disruption to footpaths and cycleways. Therefore, the change in access to social networks within Halton will be of **moderate negative significance**.

20.7.85 The Navigation ES Chapter 18 has identified a number of effects to users of watercourses within Halton as a result of the construction of the Project. Prevention or disturbance to users of watercourses has been identified along The Bridgewater Canal, The River, The Manchester Ship Canal and St Helen's Canal. Specific potential effects to users of watercourses include reduced headroom for boats and increased congestion on the waterways which may result in increased stress, decreased pleasure and the increased potential for accidents to occur. Receptors who may be affected through a change in navigable waterways are residents of Halton and the surrounding area who use watercourses for pleasure and commercial purposes.

Further to the implementation of appropriate mitigation measures outlined in the Navigation Chapter, effects to users of the River will be of **low negative significance**. Effects to users of all other watercourses will not be significant.

20.7.86 A wildfowl shooting club has been identified within close proximity to the Project along the Mersey Estuary. The members of this club have rights to shoot wildfowl during certain times of the year on part of Wigg Island and the Estuary. Continued operation of this club will compromise the safety of workers and users of the Project and therefore shooting activities will have to be restricted and in some cases stopped in close vicinity to the Project. Restrictions to shooting will occur as an indirect result of the Project and will be permanent in effect, as restrictions will have to remain in place further to operation of the Project. Members of the club are of low importance, due to the fact that no vulnerable groups are likely to be affected and the highly specific nature of receptors. Construction of the Project will only have implications to the defined receptors within a restricted area and therefore effects will be of low magnitude. Consequently, effects to recreational users of the shooting club are considered to be of **low negative significance**.

Change in Availability of Amenity and Recreational Land

20.7.87 The Land Use Assessment ES Chapter 9 has identified that construction of the Project will result in the temporary and permanent loss of greenspace and commercial/ industrial property. No residential properties are proposed to be demolished.

20.7.88 All land take will be within the Project Area as shown in Figure 1.3 of this ES (Chapter 1). The sensitivity of receptors to land take is dependent on the type of land being lost. These issues are detailed below.

Commercial/ Industrial Property

20.7.89 As previously noted in paragraph 20.7.42 approximately 72 businesses will be affected through CPOs. These businesses are located within three main areas in Halton as detailed below;

a. Ditton Road – including a number of established businesses such as Gussion Transport and S. Evans scrapyard;
b. Catalyst Trade Park – which is predominantly occupied by single storey, fairly modern light industrial units; and
c. Astmoor Industrial Estate – including a number of industrial buildings and units.

20.7.90 Sites which may require compulsory purchase orders (CPO) are located within the wards of Ditton, Riverside, Kingsway, Mersey, Castlefields and Halton Lea. The Council maintain the right to purchase these commercial areas and evict tenants from properties.

20.7.91 The effect of demolition of the commercial/ industrial properties will be of high importance to residents of Halton and those who travel to Halton for employment. The loss of commercial and industrial properties will result in the loss of associated jobs as detailed in paragraph 20.7.42. The Land Use Chapter 9 has identified that approximately 20.23Ha of industrial/ commercial land will be permanently required for the Project. The Land Use Chapter states that further to effective mitigation the loss of commercial/ industrial land in terms of land take will be of high negative significance. With regards to social receptors the loss of commercial/ industrial land will mean a potential loss in land to provide Halton residents with job opportunities. At present, the Council have identified that there is a shortage of possible sites within the Borough for affected businesses to relocate to. The Project will directly reduce the amount of industrial/ commercial land within the Borough and therefore affect the amount of jobs available within the Borough. Prior to effective mitigation it is considered that the loss of industrial/ commercial land will be **of high negative significance** to existing employees of the businesses being displaced,

but also to potential consumers, potential future employees and Halton's economy as local services previously utilised are lost.

20.7.92 Land take for use as construction compounds will predominantly occur within the wards of Riverside and Castlefields and is detailed further in Chapter 9 of this ES. However, positioning of these compounds will be temporary and short term for the duration of the construction phase. The land used for construction compounds has the potential to be returned to productive use and consequently there will be no permanent effect from construction compounds to communities surrounding the Project.

Greenspace

20.7.93 Chapter 9 of this ES details the total amount of greenspace which will be lost as a result of Project construction activities. The loss of greenspace will result in a subsequent loss of public recreational area and associated visual impacts. All greenspace to be lost is located within the Project Area. The majority of greenspace land being lost is either within St Michaels Golf Course (loss of 10.53Ha) which is currently closed and disused and saltmarsh. All greenspace which will be lost from the Project is shown in Figure 9.3 of this ES.

20.7.94 St Michael's Golf Course is currently closed on public health grounds due to high levels of contamination. Despite the fact that St Michael's Golf Course is currently closed to the public, the Council have stated an ambition to reopen of the golf course and therefore this parcel of land has the potential to be a future area of recreational value. The 18 hole golf course was constructed between 1970 and 1980 on reclaimed derelict contaminated land and subsequently closed for public health grounds in 2004. Current 'informal' land use of the golf course includes use as an informal footpath thoroughfare.

20.7.95 Receptors which may be affected through loss of part of the golf course include individuals and families within Halton utilising the area as an informal recreational area, despite its public closure, and people from Halton and the surrounding area whom play golf. At present there are two other golf courses within Halton; Cavendish Farm Golf Course located south of the river, within the ward of Heath and Widnes Golf Course, located north of the river in the ward of Kingsway. With two other golfing facilities available to Halton residents and the specific nature of receptors utilising the potential facilities (i.e. walkers currently utilising the area and golfers) the loss of 10.53Ha of land within St Michael's Golf Course is considered to be of moderate social importance.

20.7.96 The loss of 10.53Ha of land within St Michael's Golf Course for land take as part of the Project will be long term and permanent in effect. As noted within Chapter 9 of this ES, the Council have stated an ambition to reopen the golf course in the future, and therefore residents will be able to use the remaining area as a recreational area once the Project is operational. Other areas of greenspace have also been identified by Chapter 9 of this ES which will be lost as a result of construction activities, including 2.71Ha of the Community Park on Wigg Island and part of an area currently used as an informal football pitch.

20.7.97 It is likely that effects will be moderate magnitude to individuals and families within communities and LSOAs surrounding the Project, as it will be these individuals predominantly utilising the greenspace. However, residents within the rest of Halton are likely to experience a low magnitude of effect, as they may also use the greenspace being lost. Greenspace is noted as a valuable resource within the Borough and therefore the loss of this land will be of **moderate negative** significance to individuals and families within communities and LSOAs surrounding the Project and of **low negative significance** to individuals and families within the rest of Halton.

20.7.98 The temporary loss of 6.23Ha of saltmarsh will occur due to the placement of the New Bridge piers. As these areas are located within the River residents of Halton are not likely to be

affected by this loss of recreational land. Effects resulting from additional structures within the River are likely to affect navigational activities within the River; however these effects are detailed in Navigation Chapter 18.

Do Something - Operational Effects

Change in population structure

20.7.99 Guidance provided by Burdge (Ref. 11) does not relate to operational effects of a change to population structure. Further to completion, it is expected that 98 jobs will be provided to maintain operation of the Project. Of these positions approximately 33 jobs will be available to residents from outside of Halton. Consequently, there is the potential for the permanent influx of 33 workers. As previously noted, an influx of workers can increase pressure on existing facilities and services and due to the relatively deprived baseline which the Borough currently experiences, these effects are considered to be of high importance to individuals and families within Halton. The potential exists for construction workers and families to remain within Halton Borough further to completion of construction works, however, no data on these numbers can be quantified and in most cases this scenario is unlikely and actual numbers are likely to be minimal. Due to the minimal number of employees which will remain post construction and the relatively low number of workers which will be employed from outside of Halton, effects are considered to be of low magnitude. It is considered that the effect of population change resulting from the Project during operation **not be significant**.

Change in Employment Opportunities

20.7.100 The Project is estimated to provide approximately 98 direct operational jobs. These jobs are likely to comprise the following

a. Management - 10 jobs;
b. Administration incl. Toll Collection - 63 jobs;
c. Security - 10 jobs; and
d. Maintenance - 15 jobs.

20.7.101 Discussions undertaken with Mersey Travel with regards to the Mersey Tunnels have identified that it is likely that approximately 66% of these jobs (which equates to 65 jobs) will be available to residents within RAs.

20.7.102 A large proportion (64%) of the operational jobs will be provided through toll booth collections. The toll booth operation positions will be located at the toll booth plazas within the ward of Riverside. The LSOA within the east of Riverside is ranked within the worst 4% for employment deprivation and has an unemployment rate of 7.07%, which is above the average unemployment rate for Halton (of 5.53%). The LSOA within the west of Riverside, where the main toll plaza will be located, is designated within the worst 20% for employment deprivation and has an unemployment rate of 3.98%, (which is below the Halton average). The majority of neighbouring LSOAs have unemployment rates of >5.53%. In addition, the ward of Riverside has been highlighted as a priority area for deprivation including employment, under Halton's Local Area Agreement (2007 – 2010). The communities within Riverside are therefore highly sensitive to changes in employment opportunities, but due to the small number of job positions available and small area over which these jobs will be provided, direct operational job opportunities will be of low magnitude and consequently of **moderate positive significance**.

20.7.103 Some beneficial effects are likely to be noted to businesses for which road transport forms a major part of daily operations. Journey times and journey reliability will be improved for HGV and car users

20.7.104 Implementation of tolling for the SJB and New Bridge may affect employees who travel to Halton for employment and also those who live locally and work in Halton.

20.7.105 Social research (Stage 3) indicates that tolling could increase social exclusion for the poorer members of society by raising barriers to jobs, leisure, education and services. Tolls were shown to have a greater impact on those on a low income, the disabled and older people. Research has shown that as a result of tolls it is these groups who sacrifice crossings and seek local employment, education and services therefore reducing opportunities available to them. If such a sacrifice is not an option these groups were shown to suffer economically and socially as a result of tolls. Social research (2007) identified that, as a result of tolling, residents may choose to alter their travel plans, including where they would look for work. Furthermore, if toll levels are perceived to be too high, some individuals may decide to remain unemployed or quit work due to increased travel to work expenses. Due to the large catchment area which will be affected through implementation of tolls on the SJB and the New Bridge the effect of toll charging to employment opportunities is of high magnitude. Any changes in employment due to tolling will be an indirect result of the Project. Tolling of the SJB and New Bridge will be permanent and long term in effect. Consequently, the effect of toll charging to the employees (who travel to Halton by private vehicle) will be of **high negative significance**.

Change in Perception of, or Actual Health and Safety issues for Individuals in Halton

20.7.106 The following TAG Sub Objective data detailed in paragraphs 20.7.107 to 20.7.113 was sourced from work undertaken for the Transport Chapter 16.

20.7.107 The TAG Physical Fitness Sub Objective assessment undertaken in the Transport Chapter 16 identified that both walking and cycle journeys undertaken across the SJB exceed the 30 minutes per day exercise level recommended by the government. This assumption is based on the journey being undertaken daily during the working week (i.e. Monday – Friday). A comparison of the recorded level of pedestrians and cyclists on the SJB undertaken on 4/12/2007 and 2001 'journey to work' census data for Halton provided an estimate of how many individuals may potentially use the SJB. 'Travel to work' trips across the SJB, recorded on 4/12/2007 comprised 96.6% via car, 2% by cycle and 1.4% by walking. 102 pedestrian trips were recorded on the SJB between 7am and 7pm, with the highest number occurring between 10am and 11am. Trips during the AM peak (of 8am to 9am) comprised of 7045 vehicles, 2 pedestrian trips and 17 cycle trips.

20.7.108 Results obtained from the Physical Fitness survey suggest that improved pedestrian facilities on the SJB as a result of the Project could encourage up to 11.8% (i.e. 146) additional pedestrian trips across the river during the AM peak and 10.6% (i.e. 133) additional pedestrian trips during the PM peak.

20.7.109 The numbers of cycling trips across the SJB recorded on 4/12/2007 were compared in the Transportation Chapter 16 with the 2001 'journey to work'[17] census data. These data indicated that improved cycling facilities may result in 8 additional cycle trips within the AM peak. As this data is based on 2001 journey to work Census data, when no alternative safe means of cycling facilities across the river were available, the actual change to the number of cyclists whom may utilise the improved facilities across the SJB could be significantly higher.

20.7.110 The Project includes the potential to improve pedestrian and cycling facilities across the SJB. Renovated, safer and more accessible facilities across the SJB have the potential to increase the number of pedestrian and cycle trips across the river. The Options Values Sub Objective (TAG Unit 3.6.1) assessment undertaken in the Transport Chapter 16 identified that approximately 1,950 of Halton's residents could potentially use improved cycling and walking facilities along the SJB as a realistic travel option due to the relative distance of their home from

[17] Journey to Work census data identifies which mode of transport Halton residents use to access their place of work.

the SJB. Realistic pedestrian and cycling travel distances from the SJB were taken at 2km and 5km respectively. Using these distances it can be assumed that the whole of Halton may potentially be affected through improved pedestrian and cycling facilities. Pedestrian and cycling facilities will not be provided across the New Bridge. Pedestrian trips across the SJB will be of localised origin and would therefore primarily commence and finish within the wards of Mersey and Riverside. Health benefits resulting from potential improvements to pedestrian and cycling facilities will have the greatest impact to areas identified with high health deprivation levels. The LSOAs in which the SJB is located are within the worst 4% nationally for health deprivation and consequently health benefits to individuals within these wards will be of high importance. In line with the Transport Chapter TAG Physical Fitness Sub Objective, health benefits to residents in Halton through increased and improved walking and cycling opportunities, (additional trips over 30 minutes) will be of positive significance. Effects of **high positive significance** will be noted to residents in the 2km walking distance from the SJB and 5km cycling distance from the SJB as these will be where effects from improvements to facilities on the SJB are most likely to be noticed. However, as the Project will lead indirectly to the provision of other footpaths and cycleways and therefore effects to residents within the rest of Halton will be of **moderate positive significance**.

20.7.111 It is likely that the number of individuals using improved pedestrian and cycling facilities across the SJB will increase as a result of the implementation of toll charges on both the New Bridge and the SJB. Individuals are more likely to choose crossing the River via the footpath and cycleway on the SJB as opposed to paying the tolls, which will result indirectly in health benefits to individuals within Halton.

20.7.112 The Journey Ambience Sub Objective assessment was measured by reference to traveller care, traveller views and traveller stress. Traveller care was assessed through cleanliness, facilities, information and environment to all road users (i.e. pedestrians, cyclists, equestrians, private vehicle road users and public transport users). In all cases the attributes were noted to either benefit from the Project or have a neutral impact. Traveller stress was assessed to all road users through frustration, fear of potential accidents and uncertainty of route). As noted within the traveller care assessment, for the Transport Chapter 16, effects to road users will be either of *beneficial or neutral significance*.

20.7.113 The TAG Security Sub Objective assesses the change in security to road users (including freight) based on security to the road itself, the service areas and car parks etc. and at signals and junctions. The impact on the security sub objective, resulting from the implementation of the Project will be of *moderate positive effect*.

20.7.114 Data obtained from the Contamination of Soils, Sediment and Groundwater Assessment Chapter 14 identified the effect of potential contamination issues to social receptors. The assessment concluded that further to the implementation of appropriate mitigation measures effects to social receptors were not considered to be significant.

20.7.115 The Air Quality Chapter 19 has identified that users of the SJB and users of the Greenway Road in Runcorn will be subject to effects of high positive significance to due to a decrease in emissions of NO_2 and effects of moderate positive significance due to a decrease in emissions of PM_{10}. Furthermore, effects of low positive significance will be noted to the health of individuals at a regional level due to predicted changes in the regional NO_x, PM_{10} and CO_2 emissions. Air quality effects have only been considered up to the opening year of 2015. Effects of low negative significance have been identified to users of the A533 Central Expressway (in Castlefields, Halton Brook and Whitehouse), the Whitehouse Expressway (Palacefields), the New Bridge, the M56 Motorway and Deacon Road, Widnes.

20.7.116 In general, the Project will result in noise effects of **moderate positive significance** to residential properties within close proximity to the Project, specifically those properties

surrounding the SJB. Beneficial noise effects will result where traffic is removed from the local transport network. However, there will be localised effects of **high positive significance** to individuals at West Bank Primary School and Weston Point Community School and of **low negative significance** to residential properties in construction areas F, G and H. Negative effects are likely to cause disturbance and nuisance to residential properties, and in some cases, where noise is a permanent disturbance, cause a reduced quality of life.

20.7.117 Effects to local resident's perception of the area once the Project is operational were informed by Chapter 12; Landscape and Visual Amenity. Perception of landscape is highly subjective, and in some cases individuals will consider the Project (with specific regards to the New Bridge) of high positive significance to the landscape character. Alternatively, individuals may also consider the Project to be of high negative significance in that the New Bridge and other Project components are intrusive to the existing landscape. These effects will be permanent and long term. Effects of the Project within the opening year 2015 and design year 2030 are not likely to alter significantly due to the fact that mitigation can not be provided for large structures, such as the New Bridge. The potential also exists for individuals to change their opinion of the Project over periods of time. Perception of the Project is not considered to result in significant health effects on individuals within Halton.

20.7.118 However, residents' expectations, of the landscape further to the Project being complete, identified from Social research indicates a general positive attitude towards the New Bridge with respondents stating that 'I *think the new bridge will make the area look nice*' and that '*I think it will be a benefit, quite aesthetic, look good for the area*'. No negative comments were received in the survey when considering how the local area will look once the Project is complete.

Changes in access to facilities and social networks around Halton

20.7.119 The Transport Chapter 16 was reviewed to obtain information relating to a change in access during the operation of the Project. Receptors that may be affected through a change in transport have been taken as the travelling public (car users, bus users, pedestrians and cyclists).

20.7.120 Improved traffic management and rerouting of traffic flows in Halton resulting from the Project will result in a reduction in congestion and local and regional vehicle journey times from those predicted in 2015 without the Project.

20.7.121 As noted in paragraph 20.7.110 the Options Values Sub Objective (TAG Unit 3.6.1) assessment undertaken in the Transport Chapter 16 identified that approximately 1,950 of Halton's residents could potentially view improved cycling and walking facilities along the SJB as a realistic travel option. Using these distances it can be assumed that the whole of Halton may potentially be affected through improved pedestrian and cycling facilities. Based on the TAG scoring advice the impact of a new facility to 500 to 1999 people will be of *moderate beneficial effect* to all residents within Halton.

20.7.122 Assessment of the Project to the public transport system (i.e. access to public transport services) was undertaken using the Access to the Transport System Sub Objective (Tag Unit 3.6.3). This assessment concluded that the Project is likely to have a positive effect to the local public transport system with a beneficial effect on service frequency and reliability. This conclusion was based upon the knowledge that most of Halton's population live within walking distance of a bus stop and therefore have access to public transport.

20.7.123 The Transport Interchange Sub Objective (TAG Unit 3.7.1) assesses the information, physical linkages and connection time services of freight and public transport interchange both with and without the Project in operation. No effect to freight interchange was identified. The only transport interchange locations identified in close proximity to the Project are Runcorn Mainline Rail Station and Runcorn Bus Station. The services provided by these locations were deemed

to experience *moderate beneficial impacts* as a result of the Project, compared with the 'do nothing' assessment. This assessment was based on provision of improved information, increased reliability of physical linkages for the next stage of journey and a decreased risk in missing connecting public services.

20.7.124 The Transport Chapter 16 has identified that construction of the Project is predicted to relieve the SJB of over 81,000 vehicles per day by 2015 to approximately 12,000 vehicles per day. The current theoretical capacity for the SJB is 65,000 vehicles per day, therefore the predicted future flows per day are well within the SJB capacity. A reduction in vehicle flows on the SJB to below the capacity level will contribute towards reducing the amount of essential maintenance work which is required on the SJB and the associated delays and costs affecting Halton residents which would be incurred by such work.

20.7.125 Social research (Stage 4) identified through car driver questionnaires that if both bridges were tolled, with each bridge offering a five minute time saving, over half of the respondents surveyed would still prefer to use the existing SJB rather than the New Bridge. However, it is unlikely that all respondents who stated that they would continue to use the SJB would do so, as rerouting of main thoroughfares and delinking of the SJB from the regional transport network would discourage trips over the SJB from those travelling across the Borough.

20.7.126 The majority of respondents interviewed within the Stage 4 social research exercise who stated that they would prefer to use the SJB were those undertaking leisure and personal business trips and making local journeys. The majority of respondents stating that they would prefer to use the New Bridge were those travelling on business and making non-local journeys. The design of the Project reflects these prospective travel patterns in that the New Bridge and associated road junction modifications will divert regional traffic away from the SJB, leaving the SJB for local traffic only. Therefore, due to the proposed decrease in traffic congestion effects to residents in Halton will be of high positive significance. The decrease in local traffic and provision of a reliable through route via the New Bridge will result in effects of **high positive significance** to car users and users of public transport, in that their journey times will be slightly reduced, journey reliability will be improved and there will be an associated decrease in traveller stress.

20.7.127 The Transport Chapter 16 has identified that there will be effects of **high positive significance** to pedestrians and cyclists undertaking cross river trips, through provision of improved, dedicated facilities on the SJB. The Council's LTP household survey (2004) indicates that the majority of respondents stated they use cars for convenience and due to a lack of alternatives. This indicates that individuals within Halton will use new facilities across the River if they were provided.

20.7.128 The above assessment mirrors the views of focus groups interviewed during the 2007 social research exercise (Stage 7). Respondents from all groups believed that the Project would result in a significant positive effect to the local transport network and improve access within and through Halton. These views show the positive attitude of residents towards completion of the Project with regards to the transport network.

20.7.129 All identified social facilities within Halton are presented on Figure 20.17. Transport modelling undertaken as part of the Transport Chapter 16 has identified that once the Project is operational the change to local vehicular movements and consequently the potential ability of local residents to access services and facilities will be of **high positive significance**.

20.7.130 It is also likely that there will be effects of **low negative significance** (as identified by the Transport Chapter 16) to pedestrians using two PRoWs between Croft Street to the Transpennine Trail and Victoria Street and the PRoW across St Michael's Golf Course (Old Lane Path) as these paths will be permanently lost. Furthermore, effects of **low negative significance** were also noted by the Transport Chapter to cyclists using the National Cycle

Network Trail 62 at Widnes Loops Junction and the Hallwood Park cycleway near the junction between the Central Expressway and the Southern Expressway.

20.7.131 Proposed tolling of the SJB and New Bridge will affect access to facilities and social networks through financial exclusion of individuals with a lower expendable income or individuals who do want to pay a toll to visit social networks (including friends and family) and facilities which were previously free to access.

20.7.132 As previously noted, tolls on the New Bridge and SJB are likely to mirror those on the Mersey Tunnels. These charges are detailed in paragraph 20.6.68. Therefore, tolling of the New Bridge and the SJB has the potential to significantly affect access to services, facilities, employment and social facilities throughout Halton, where trips involve crossing the River by private vehicle.

20.7.133 As noted in paragraph 20.7.105 it is likely that the most vulnerable groups to tolling will be low income groups and disabled residents. Low income groups were identified using the 2007 IMD income deprivation indices. The most vulnerable areas in terms of 2007 IMD income deprivation (based on the worst 20% LSOA) are located in the wards of Hough Green, Ditton, Riverside, Halton View, Castlefields, Grange, Halton Brook, Halton Lea, Windmill Hill, Norton North and Norton South. The greatest proportions of disabled residents are located in the income deprived wards of Riverside, Castlefields, Ditton, Halton Brook, Windmill Hill and Halton Lea.

20.7.134 Focus groups interviewed during social research for the Project (2007) highlighted their concern over proposed toll charges on the SJB and the New Bridge to Halton residents with specific regards to local businesses, local employees and those individuals and families on low incomes. Despite concerns over the toll charges most members of the focus groups stated that, ultimately most users would resign themselves to paying the toll through necessity and convenience.

20.7.135 The only alternative routes for private vehicles over the River to avoid paying tolls would be to travel via Warrington town centre or Thelwall Viaduct on the M6 with travel times in the region of 40 and 65 minutes respectively from the southern to the northern side of the SJB. As noted by focus group interviews, these journey times are inconvenient and would incur additional time and travel costs through increased fuel consumption.

20.7.136 Social research (Stage 3) identified that individuals may reduce cross river social trips to friends and family. A reduction in trips may result in less frequent visits to see elderly relatives or individuals with LTLIs in addition to other social networking trips. A reduction in social visits may result in a decreased quality of life for some individuals. Furthermore, it was noted that implementation of tolls may hinder access to hospitals, including access to hospital appointments or visiting sick friends/ relatives.

20.7.137 Tolling of the New Bridge and SJB is likely to result in the perceived removal of transport choice to individuals within Halton.

20.7.138 Implementation of tolls may result in a change in access to facilities, services and social networks through social exclusion of individuals with low incomes. All receptors that may be affected include the travelling public (using private vehicles). Due to the potential of social exclusion to a large proportion of the population within and surrounding the Borough, and the extent of income deprivation within the area, effects of toll charging to access is considered to be of high importance. Due to the large catchment area which will be affected through implementation of tolls on the SJB and the New Bridge the effect of toll charging to a change in access is of high magnitude. Any change in access due to tolling will be an indirect result of the Project. Tolling of the SJB and New Bridge will be permanent and long term in effect. Consequently, the effect of toll charging to the travelling public (by private vehicle) will be of **high negative significance**.

20.7.139 The Severance Sub Objective (TAG Unit 3.6.2) was assessed as part of the Transportation ES Chapter. This sub objective assessed community severance through a change in the 2015 'do minimum' and 'do something' 24 hour AADT traffic flows. Road links where a 30% increase or decrease in traffic flows were identified. Catchments of community facilities were taken as a 2km walking radius and a 5km cycling radius. The change in access to key community facilities[18] via greenways, bridleways, cycleways and PRoW as a result of a 30% increase/ decrease in traffic flows was assessed. These included the following routes through the wards of Riverside, Castlefields, Halton Lea, Heath and Mersey;

20.7.140 The effect to local communities through a change in access to facilities via the above access routes was not considered to be significant.

20.7.141 Table 20.20 presented below, details a summary of all identified effects to social receptors which may potentially arise as a result of the Project.

[18] schools, GPs, hospitals, care homes, shopping centres, churches, parks, play areas, sports centres, bus and train stations and libraries

Table 20.20 - Summary of Potentially Significant Social Effects

Impact	Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
Construction Phase				
Change in population structure	Increased pressure to community facilities and services (e.g. health centres, hospitals, leisure facilities).	Individuals and families within communities and LSOAs surrounding the Project – High Importance	Temporary Moderate magnitude Short term Indirect	Moderate Negative
		Individuals and families within the rest of Halton – Moderate Importance	Temporary Low magnitude Short term Indirect	Low Negative
	Increased feeling of insecurity amongst residents (associated with an influx of workers to the area)	Individuals and families within communities and LSOAs surrounding the Project – High Importance	Temporary Moderate magnitude Short term Indirect	Moderate Negative
		Individuals and families within the rest of Halton – High Importance	Temporary Low magnitude Short term Indirect	Low Negative
	Economic benefits through increased expenditure within Halton (e.g. through local shops, leisure centres, private renting sector)	Individuals and families within Halton – High Importance	Temporary Low magnitude Short term Indirect	Low Positive
Change in Employment Opportunities	Increase/ decrease in job opportunities available to local residents	Appropriately skilled/ qualified individuals seeking employment within Halton – High Importance	Temporary High magnitude Short term Direct	High Positive
	Effects to employees of businesses affected through Project CPOs.	Employees who travel to Halton for employment and also those who live locally and work in Halton – High Importance	Permanent High Magnitude Long term Direct	High Negative
Change in perception or actual health and safety issues for individuals in Halton	Health implications through disruption in access to health facilities and increased traveller stress	Travelling Public (Car and Bus users) High Importance	Temporary Low Magnitude Short term Indirect	Low Negative
		Travelling Public (Pedestrians and Cyclists) High Importance	Temporary Low Magnitude Short term Indirect	Not Significant
	Change in exercise uptake through disruptions to footpaths and cycleways	Travelling Public (Pedestrians and Cyclists) High Importance	Temporary Low Magnitude Short term Indirect	Low Negative

Impact	Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
	Construction compound and associated traffic movement health and safety issues;	Individuals and families within communities and LSOAs surrounding the Mersey Gateway Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative
		Travelling Public High Importance	Temporary Low Magnitude Short term Direct	Low Negative
		Employees working within or adjacent to the Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative
	Contamination risks through soil, sediment, and groundwater.	All Receptors – as defined in Chapter 14		Not Significant
	Change in surface water quality	Users of watercourses within Halton (As defined within Chapter 8)		Not Significant
	Creation of Project related Wastes (Dust)	Individuals and families within communities and LSOAs surrounding the Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative
		Employees working within or adjacent to the Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative
	Changes in Air quality resulting from construction traffic emissions (NO_2 and PM_{10})	All social receptors within 200m of Construction Areas A – I High Importance	Temporary Low Magnitude Short term Direct	Low Negative
	Changes in Air Quality resulting from road traffic emissions (NO_2 and PM_{10})	All social receptors within 200m of Construction Areas A – I High Importance	Temporary Low Magnitude Short term Direct	Moderate Negative
	Changes in Noise & Vibration	Individuals and families within communities and LSOAs surrounding the Mersey Gateway Project High Importance	Temporary Moderate Magnitude Short term Direct	Low - Moderate Negative
		Individuals and families within Construction Area G, Wigg Island and Woodside Primary School High Importance	Temporary Moderate Magnitude Short term Direct	High Negative
	Changes in health due to perception of a change in	Individuals and families within Halton	Temporary	Not Significant

Impact	Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
	landscape and amenity	High Importance	Low Magnitude Short term Indirect	
Change in access to facilities and social networks	Effects to existing employers/ employees within Halton resulting from disruption from Project construction activities	Employees who travel to Halton for employment and also those who live locally and work in Halton – High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative
	Change in access to GPs, health centres and hospitals	Travelling Public – Car Users High Importance	Temporary Low Magnitude Short term Indirect	Low Negative
		Travelling Public – pedestrians and cyclists High Importance	Temporary Low magnitude Short term Indirect	Not Significant
	Change in access to Further Education establishments and special schools	Travelling Public – Car users High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative
	Change in access to Primary and Secondary Education establishments	Travelling Public – Car Users High Importance	Temporary Low Magnitude Short term Indirect	Low Negative
		Travelling Public – pedestrians and cyclists High Importance	Temporary Low Magnitude Short term Indirect	Low Negative
	Navigational Effects to users of the River	Users of the River Mersey within Halton - High Importance	Temporary Low Magnitude Short term Direct	Low Significance
	Change in daily movements	Travelling Public – Car Users High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative
		Travelling Public – pedestrians and cyclists High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative
	Change in recreational shooting opportunities in Astmoor	Astmoor Shooting Club Low Importance	Temporary Low Magnitude Short term Indirect	Low Negative

Impact	Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
Change in availability of amenity and recreational land	Loss of Commercial/ Industrial Land/ Property	Employees who travel to Halton for employment and also those who live locally and work in Halton High Importance	Permanent High Magnitude Long term Direct	High Negative
		Individuals and families within Halton High Importance	Permanent High Magnitude Long term Indirect	High Negative
	Loss of Greenspace	Individuals and families within communities and LSOAs surrounding the Project Moderate Importance	Permanent Moderate Magnitude Long term Direct	Moderate Negative
		Individuals and families within the rest of Halton – Moderate Importance	Permanent Low Magnitude Long term Direct	Low Negative
Operational Phase				
Change to Population Structure	Jobs created through operation of the Project	Individuals and families within Halton High Importance	Permanent Low Magnitude Long term Direct	Not Significant
Change to Employment Opportunities	Creation of jobs directly through operation of the Project	Appropriately skilled/ qualified individuals seeking employment within Halton – High Importance	Permanent High Magnitude Long term Direct	Moderate Positive
	Change in travel patterns and job catchment areas due to tolling	Employees – who travel to work in Halton by private vehicle High Importance	Permanent High Magnitude Long term Direct	High Negative
Change in perception of, or actual health and safety issues for individuals in Halton	Provision of pedestrian and cycling facilities (directly and indirectly as a result of the Project)	Individuals and families within 2km walking distance and 5km cycling distance from the SJB High Importance	Permanent Moderate Magnitude Long term Indirect	High Positive
		Individuals and families within the rest of Halton Moderate Importance	Permanent Low Magnitude Long term Indirect	Moderate Positive
	Contamination risks through soil, sediment, and groundwater.	All Receptors – as defined in Chapter 14		Not Significant
	Changes in Air Quality – emissions of NO_2	Users of the SJB and Greenway Road High Importance	Permanent Moderate Magnitude Long term Indirect	High Positive

Impact	Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
	Changes in Air Quality – emissions of NO_2	Individuals and families within the rest of Halton High Importance	Permanent Moderate Magnitude Long term Indirect	Moderate Positive
	Changes in Air Quality – emissions of NO_2, PM_{10} and CO_2	Individuals and families within the North West High Importance	Permanent Moderate Magnitude Long term Indirect	Low Positive
	Changes in Noise and Vibration	Individuals at Weston Point and West Bank School High Importance	Permanent High Magnitude Long term Indirect	High Positive
		Individuals and families residing in close proximity to the SJB High Importance	Permanent Moderate Magnitude Long term Indirect	Moderate Positive
		Individuals and families residing in close proximity to construction areas F, G and H High Importance	Permanent Low Magnitude Long term Indirect	Low Negative
	Changes in health due to perception of a change in landscape and amenity	Individuals and families within Halton High Importance	Temporary Low Magnitude Short term Indirect	Not Significant
Change in access to facilities and social networks	Navigational Effects to users of Watercourses	Users of watercourses within Halton - High Importance	Temporary Low Magnitude Long term Direct	Not Significant
	Provision of improved access routes	Travelling Public – Car Users – High Importance	Permanent Moderate magnitude Long term Direct	High Positive
		Pedestrians and cyclists undertaking cross River trips within Halton High Importance	Permanent Moderate magnitude Long term Direct	High Positive
		Users of Public Transport undertaking cross River trips in Halton High Importance	Permanent Moderate magnitude Long term Direct	High Positive

Impact	Effect	Receptor and Importance	Nature of Effect (Permanent / Temporary and Magnitude)	Significance (High, Moderate, Low and Positive / Negative)
	Disruption and closure of footpaths and cycleways	Pedestrians and cyclists within Halton undertaking non cross River trips High Importance	Permanent Low magnitude Long term Direct	Low Negative
	Change to daily movements through implementation of tolling	Travelling Public – Car Users High Importance	Temporary High Magnitude Long term Direct	High Negative

20.8 Mitigation, Enhancement and Monitoring

Consultation and Public Engagement

20.8.1 Consultation and advertisement of the Project has been widely undertaken throughout the Borough to date. However, to ensure that all residents within the Borough are aware of Project proposals and the implications of the Project to their daily activities, further Project awareness campaigns will be undertaken including the distribution of data through brochures, exhibitions, press releases and other Council publications. When details of construction works have been finalised, the times and locations of temporary road closures and diversion will also be advertised to the public.

20.8.2 The Council will set up a residents' liaison group with the construction company and themselves to ensure that information is provided to residents throughout the Project.

Change in Population Structure

Construction

Mitigation Measures

20.8.3 The potential for increased pressure on services and facilities in close proximity to the Project may result in a negative effect to residents in Halton. These effects have been deemed greatest to essential services such as GPs and hospitals. It is likely that contractors will make arrangements with health facilities near to the residential construction camps. All local users of health facilities which will be utilised by construction workers should be informed of the increased pressures which may be experienced at their local centres so that they will be aware of a potential increase in waiting times and alternative arrangements can be made if necessary. Where specific pressure points have been identified by PCTs to essential services, provision of appropriately targeted financial contributions will be provided to relieve strain.

20.8.4 The Project will provide a community liaison officer to ensure relations between construction workers and residents are maintained and reduce any feelings of insecurity within the area. Furthermore, in order that residents can contact the contractor to report any incidents or fear of incidents resulting from the influx of workers into the Borough and maintain their feeling of safety, a contact name and number will be provided to local residents, community groups and local police. This contact will act as a representative of the contractor and act upon any complaints or concerns received.

Operation

Mitigation Measures

20.8.5 No measures are required to mitigate against the change in population structure once the Project is operational as effects will not be significant.

Monitoring Measures

20.8.6 A point of correspondence between Halton's PCT and local hospitals and GPs being used by construction workers should be identified and updates regularly provided to ensure the early identification of pressure points. Any change in population structure should be undertaken with an updated Borough wide census review.

Change in Employment Opportunities

Construction

Mitigation Measures

20.8.7 To ensure disruption to existing businesses and employees within the Borough is minimal the Council will provide adequate advance awareness of the construction route and all road closures and diversions which will occur to residents within the Borough. Awareness of construction activities will ensure both businesses and consumers can adequately plan around construction activities and will not be subject to stressful, unexpected journey delays and diversions along the road network.

20.8.8 The Council have produced a Mersey Gateway Relocation Strategy in order to aid businesses which will be displaced through Project CPOs. This strategy identifies that the Council will work with individual businesses on a case by case basis to understand specific needs of each business, provide support with clear communication links and help identify suitable alternative premises. The relocation strategy aims to keep any disturbance to affected businesses at a minimum.

Operation

20.8.9 No measures are required to enhance employment opportunities once the Project is operational as skilled job opportunities will be limited.

Monitoring Measures

20.8.10 The Council should ensure that all jobs both directly created and lost as a result of the Project are identified and recorded.

20.8.11 The Council should keep a detailed record of the retention figure of individuals attending Project training initiatives who are subsequently employed during construction activities.

Mitigation

20.8.12 A Sustainable Transport Strategy is currently being prepared for the Borough. This strategy aims to relieve congestion on the SJB by promoting an integrated transport system for Halton through improving bus services and opportunities for walking and cycling. Provision of improved facilities will reduce the reliance of local residents on private vehicles, where possible. Improved public transport facilities, footpaths and cycleways will therefore provide local residents with another option of crossing the River, which does not involve paying the toll.

Enhancement Measures

20.8.13 In anticipation of construction, local training initiatives and opportunities should be provided for local residents to decrease the skills gap and provide adequate and targeted training for construction workers to subsequently obtain jobs for the Project. Training opportunities would increase the potential number of jobs available to local residents and provide Halton with a greater skills pool from which to resource. Training programmes are in line with Council policies in that '*Halton will implement its basic skills strategy and develop activity that enables local people to access employment*' and '*Halton will continually map, review and address the skill deficits in the Borough to enable businesses to recruit and develop their workforce*' (Halton Gateway to Prosperity 2005 – 2008). The Council are currently working with Halton People into Jobs and Construction for Merseyside to increase local skills available for the Project. A number of construction training programmes are currently available from a number of colleges within and surrounding Halton, including Halton College ranging from a BTEC 1st Diploma to a BTEC National Diploma which can be used for Project training resources. A number of schools

within Halton (providing further education) are looking into proving a Diploma in Construction and the Built Environment.

20.8.14 In order to provide additional indirect job opportunities, the Project allows implementation of the Mersey Gateway Regeneration Strategy. This strategy will aim to attract individuals and families into the area through provision of employment and improved transport links.

Change in Perception of, or Actual Health and Safety issues for Individuals in Halton

Construction

20.8.15 In order to reduce any risk to human health and safety directly resulting from construction activities the contractor will ensure that a Construction Health and Safety Plan is prepared prior to construction activities commencing. Furthermore, appropriate traffic management will be implemented at areas of construction, including safety provisions for pedestrians and cyclists where required. Diversions required as a result of construction traffic management should avoid residential areas where possible to further reduce any risk of accidents occurring. The Council will provide adequate signage in advance of construction works occurring detailing locations of construction compounds and areas where construction plant and HGVs will be used.

Operation

Enhancement Measures

20.8.16 All new and improved footpath and cycleway networks, both directly and indirectly resulting from the Project should be integrated into Halton's existing sustainable transport network. All new routes should be publicised to ensure that they are used by the maximum number of people. Furthermore, routes should be supplemented with adequate signage linking the routes with Halton's sustainable transport network and specific facilities (i.e. town centres, hospitals, GPs and schools).

Monitoring Measures

20.8.17 Hospital and GP admissions should be monitored by Halton's PCT to identify any areas of concern or incidents resulting from the Project.

Changes in Access to Facilities and Social Networks around Halton

Construction

Mitigation Measures

20.8.18 In line with requests identified from public research, the Council should ensure that all road, busway, cycleway, watercourse and footpath closures are clearly advertised, with diversion routes clearly marked, both during and in advance of construction works, with diversion routes clearly marked. Diversion routes created as a result of Project construction activities should, where possible, avoid any residential roads. The Council should ensure that safe, accessible footpaths and cyclepaths are provided where construction activities disrupt existing pavements and cyclelanes.

Operation

Mitigation Measures

20.8.19 No measures are required to mitigate against the change to the local transport network once the Project is operational as effects will not be significant or will be of positive significance to receptors.

20.8.20 A Sustainable Transport Strategy is currently being prepared for the Borough. This strategy aims to relieve congestion on the SJB by promoting an integrated transport system for Halton through improving bus services and opportunities for walking and cycling. Provision of improved facilities will reduce the reliance of local residents on private vehicles, where possible. Improved public transport facilities, footpaths and cycleways will therefore provide local residents with another option of crossing the River, which does not involve paying the toll.

Enhancement Measures

20.8.21 Operation of the Project will support a sustainable transport network within Halton through increasing the range of possibilities available to residents. The Project includes provision of dedicated cycling and pedestrian facilities across the SJB and indirectly will result in the potential for new pedestrian and cycling facilities including those which can be built between Runcorn Old Town and Halton College Campus following delinking of the SJB. Provision of these facilities is in line with Halton's UDP (2005) in that Halton aims to '*provide safe and attractive pedestrian routes and extend pedestrianisation of town centres*'. In light of the number of wards surrounding the Project which have been identified with low car/ van ownership, it is highly important that no negative effects to sustainable transport modes are incurred as a result of the Project, as is shown by the Transport Chapter.

Change in Availability of Amenity and Recreational Land

Mitigation Measures

20.8.22 A Mersey Gateway Relocation Strategy has been produced by the Council to aid businesses which will be displaced through Project CPOs. This strategy identifies that the Council will work with individual businesses on a case by case basis to understand specific needs of each business, provide support with clear communication links and help identify suitable alternative premises. The relocation strategy aims to keep any disturbance to affected businesses at a minimum.

20.8.23 Appendix 9.11 of the Land Use Chapter 9 details the Council's statement of intent (2008) for St Michaels Golf Course. Although part of the land currently contained within St Michael's Golf Course will be subsumed by the Project the Council consider that this will not compromise the ability to reopen the site as an 18 hole golf in the future.

20.9 Residual Impacts

20.9.1 The adoption of mitigation and enhancement measures during the construction and operation of the Project has the potential to reduce the significance of the negative effects outlined in Table 20.20. Table 20.21 details the significance of residual effects associated with the construction and operation of the Project further to the implementation of mitigation and enhancement measures.

20.9.2 Mitigation of tolling effects can be provided through the Sustainable Transport Strategy. This strategy is described in more detail within the Transport Chapter 16. This strategy will be of benefit to individuals within Halton, in that it will provide individuals with a greater transport choice and an alternative for using private vehicles. Individuals undertaking cross river trips could therefore use an alternative transport mode which will consequently not require payment of tolls. The Council's LTP household survey, undertaken in 2004 identified that individuals within Halton used their cars for convenience and due to a perceived lack of alternatives. In light of this data, it is likely that provision of sustainable transport measures will be highly sought after and beneficial to individuals in Halton.

20.9.3 The Project will include passive provision for light rapid transport infrastructure to be provided in the future. The proposed concession arrangements include provisions for the Council to share in the toll revenue and, where this revenue is passed to the Council, it will be used to support toll discount schemes and funding for the preferred sustainable transport programme. Although it is acknowledged that the sustainable transport strategy will provide the opportunity to help mitigate the effects of tolling for individuals within Halton, effects are currently unquantifiable as no commitment has currently been made towards which sustainable measures will be implemented and where.

20.9.4 The Council has made a commitment to the Project team that certain classes of disabled individuals will be exempt from tolling on the New Bridge and SJB. Tolling effects will consequently be eliminated for those individuals who qualify under the disabled banding adopted. It is noted that tolling exemptions will be beneficial for the classified individuals, however as no strategy has been published these effects are currently unquantifiable and therefore mitigation effects have not been assessed within this chapter.

20.9.5 As noted within the SEIA methodology, detailed in Section 20.5, effects sourced from other assessments have assumed the incorporation of mitigation and enhancement measures recommended by the relevant chapter. Therefore, it was not considered relevant to recommend further mitigation to that provided within the original chapters.

20.9.6 Implementation of the Mersey Gateway Regeneration Strategy would result in additional effects being noticed within the Borough. This Strategy details that approximately 3,600 jobs could be created over the following areas:

a. Southern Widnes (including West Bank);
b. Runcorn Old Town;
c. Halton Lea;
d. Astmoor Industrial Estate/ Wigg Island; and
e. Rocksavage and Clifton.

20.9.7 Regeneration within Halton may encourage immigration to the Borough and discourage emigration from the area. Regeneration of Halton, in line with the Regeneration Strategy, will result in permanent, long term positive effects of greater economic prosperity through the provision of jobs, improved social connectivity, new residential development and new and improved leisure and recreational areas. Effects resulting from regeneration opportunities provided by the Project are likely to be of **high positive significance** to individuals and families within Halton.

20.9.8 However, an influx of people to the area may also result in increased pressure to existing community services and facilities (e.g. education facilities, GPs and hospitals). Due to the relatively deprived social baseline which Halton experiences in comparison with other Boroughs, any pressure to existing services will be of high importance. Regeneration is planned Borough wide and therefore pressure to facilities and services will be spread across Halton. Consequently, it is likely that effects will be of moderate magnitude to all individuals and families within Halton and of **moderate negative significance**. It should be noted that the indirect effects resulting from enhancement measures associated with the Project are not within the remit of the SEIA to assess.

Table 20.21 - Residual Social Effects

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
Construction Phase						
Change in population structure	Increased pressure to community facilities and services (e.g. health centres, hospitals, leisure facilities).	Individuals and families within communities and LSOAs surrounding the Project – High Importance	Temporary Moderate magnitude Short term Indirect	Moderate Negative	Raise awareness amongst local residents of facilities and services which are likely to experience increased pressures during the construction period Appropriately targeted provision of financial contributions where necessary to relieve specific pressure points within the Borough	Low Negative
		Individuals and families within the rest of Halton – Moderate Importance	Temporary Low magnitude Short term Indirect	Low Negative		Not Significant
	Increased feeling of insecurity amongst residents (associated with an influx of workers to the area)	Individuals and families within communities and LSOAs surrounding the Project – High Importance	Temporary Moderate magnitude Short term Indirect	Moderate Negative	Provision of Community liaison officer to ensure relations between construction workers and residents are upheld Provision of contact name/ number to local residents/ police to contact further to any incidents/ fear of incidents	Low Negative
		Individuals and families within the rest of Halton – High Importance	Temporary Low magnitude Short term Indirect	Low Negative		Not Significant
	Economic benefits through increased expenditure within Halton (e.g. through local shops, leisure centres, private renting sector)	Individuals and families within Halton – High Importance	Temporary Low magnitude Short term Indirect	Low Positive	No enhancement measures required	Low Positive
Change in Employment	Increase/ decrease in job opportunities	Appropriately skilled/ qualified individuals seeking	Temporary	High Positive	Provision of relevant training programmes within Halton prior to	High Positive

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
Opportunities	available to local residents	employment within Halton – High Importance	High magnitude Short term Direct		construction to ensure a greater skills pool within the area from which to resource.	
	Effects to employees of businesses affected through Project CPOs.	Employees who travel to Halton for employment and also those who live locally and work in Halton – High Importance	Permanent High Magnitude Long term Direct	High Negative	Provision of Mersey Gateway Relocation Strategy proving advice and support to affected businesses.	Low Negative
Change in perception or actual health and safety issues for individuals in Halton	Health implications through disruption in access to health facilities and increased traveller stress	Travelling Public (Car and Bus users) High Importance	Temporary Low Magnitude Short term Indirect	Low Negative	No additional mitigation to be provided further to that detailed within the Transport Chapter 16.	Low Negative
		Travelling Public (Pedestrians and Cyclists) High Importance	Temporary Low Magnitude Short term Indirect	Not Significant	No mitigation measures required	Not Significant
	Change in exercise uptake through disruptions to footpaths and cycleways	Travelling Public (Pedestrians and Cyclists) High Importance	Temporary Low Magnitude Short term Indirect	Low Negative	No Mitigation to be provided	Low Negative
	Construction compound and associated traffic movement health and safety issues;	Individuals and families within communities and LSOAs surrounding the Mersey Gateway Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative	Appropriate traffic management Implementation of Construction Health and Safety Plan	Not Significant
		Travelling Public High Importance	Temporary Low Magnitude	Low Negative	Provision of adequate signage detailing locations of construction	Not Significant

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
			Short term Direct		compounds and areas if plant/ HGV movements	
		Employees working within or adjacent to the Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative		Not Significant
	Contamination risks through soil, sediment, and groundwater.	All Receptors – as defined in Chapter 14		Not Significant	No mitigation measures required	Not Significant
	Change in surface water quality	Users of watercourses within Halton (As defined within Chapter 8)		Not Significant	No mitigation measures required	Not Significant
	Creation of Project related Wastes (Dust)	Individuals and families within communities and LSOAs surrounding the Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative	No additional mitigation recommended further to that detailed within the Waste Chapter 15 and the Air Quality Chapter 19.	Low Negative
		Employees working within or adjacent to the Project High Importance	Temporary Low Magnitude Short term Direct	Low Negative	No additional mitigation recommended further to that detailed within the Air Quality Chapter 19.	Low Negative
	Changes in Air quality resulting from construction traffic emissions (NO_2 and PM_{10})	All social receptors within 200m of Construction Areas A – I High Importance	Temporary Low Magnitude Short term Direct	Low Negative	No additional mitigation recommended further to that detailed within the Air Quality Chapter 19.	Low Negative
	Changes in Air	All social receptors within	Temporary	Moderate Negative	No additional mitigation recommended	Moderate Negative

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
	Quality resulting from road traffic emissions (NO_2 and PM_{10})	200m of Construction Areas A – I High Importance	Low Magnitude Short term Direct		further to that detailed within the Air Quality Chapter 19.	
	Changes in Noise & Vibration	Individuals and families within communities and LSOAs surrounding the Mersey Gateway Project High Importance	Temporary Moderate Magnitude Short term Direct	Low - Moderate Negative	No additional mitigation recommended further to that detailed within the Noise and Vibration Chapter 17.	Low - Moderate Negative
		Individuals and families within Construction Area G, Wigg Island and Woodside Primary School High Importance	Temporary Moderate Magnitude Short term Direct	High Negative	No additional mitigation recommended further to that detailed within the Noise and Vibration Chapter 17.	High Negative
	Changes in health due to perception of a change in landscape and amenity	Individuals and families within Halton High Importance	Temporary Low Magnitude Short term Indirect	Not Significant	No mitigation measures required	Not Significant
Change in access to facilities and social networks	Effects to existing employers/ employees within Halton resulting from disruption from Project construction activities	Employees who travel to Halton for employment and also those who live locally and work in Halton – High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative	Prior awareness of construction route including all roads which will be closed/ disrupted to local consumers and businesses to ensure that day to day businesses operations are not disrupted. Prior awareness and adequate signage to local consumers and businesses of diversions and alternative routes. Provision of signage to advertise businesses which remain open in close proximity to construction activities.	Low Negative
	Change in access to	Travelling Public – Car Users	Temporary	Low Negative	Prior awareness of road closures and	Not Significant

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
	GPs, health centres and hospitals	High Importance	Low Magnitude Short term Indirect		disruptions. Provision of adequate signage detailing diversionary routes.	
		Travelling Public – pedestrians and cyclists High Importance	Temporary Low magnitude Short term Indirect	Not Significant	No Mitigation Measures required	Not Significant
	Change in access to Further Education establishments and special schools	Travelling Public – Car users High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative	Prior awareness of road closures and disruptions. Provision of adequate signage detailing diversionary routes.	Low Negative
	Change in access to Primary and Secondary Education establishments	Travelling Public – Car Users High Importance	Temporary Low Magnitude Short term Indirect	Low Negative	Prior awareness of road closures and disruptions. Provision of adequate signage detailing diversionary routes.	Not Significant
		Travelling Public – pedestrians and cyclists High Importance	Temporary Low Magnitude Short term Indirect	Low Negative	Provision of alternative/ diversionary footpath and cycleway routes. Provision of adequate signage detailing any diversionary footpaths. Provision of adequate safety measures alongside pavements.	Not Significant
	Navigational Effects	Users of the River Mersey	Temporary	Low Negative	No mitigation measures recommended	Low Negative

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
	to users of the River	within Halton - High Importance	Low Magnitude Short term Direct		further to those detailed in the Navigational Chapter 18.	
	Change in daily movements	Travelling Public – Car Users High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative	Prior awareness of road closures and disruptions. Provision of adequate signage detailing diversionary routes.	Low Negative
		Travelling Public – pedestrians and cyclists High Importance	Temporary Moderate Magnitude Short term Indirect	Moderate Negative	Provision of alternative/ diversionary footpath and cycleway routes. Provision of adequate signage detailing any diversionary footpaths. Provision of adequate safety measures alongside pavements.	Low Negative
	Change in recreational shooting opportunities in Astmoor	Astmoor Shooting Club Low Importance	Temporary Low Magnitude Short term Indirect	Low Negative	No mitigation measures recommended	Low Negative
Change in availability of amenity and recreational land	Loss of Commercial/ Industrial Land/ Property	Employees who travel to Halton for employment and also those who live locally and work in Halton High Importance	Permanent High Magnitude Long term Direct	High Negative	Provision of Mersey Gateway Relocation Strategy	Low Negative
		Individuals and families within Halton High Importance	Permanent High Magnitude Long term Indirect	High Negative	Provision of Mersey Gateway Regeneration Strategy	Low Negative

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
	Loss of Greenspace	Individuals and families within communities and LSOAs surrounding the Project Moderate Importance	Permanent Moderate Magnitude Long term Direct	Moderate Negative	Provision of Mersey Gateway Regeneration Strategy	Moderate Negative
		Individuals and families within the rest of Halton – Moderate Importance	Permanent Low Magnitude Long term Direct	Low Negative	Provision of Mersey Gateway Regeneration Strategy	Low Negative
Operational Phase						
Change to Population Structure	Jobs created through operation of the Project	Individuals and families within Halton High Importance	Permanent Low Magnitude Long term Direct	Not Significant	No mitigation measures required	Not Significant
	Regeneration attracting individuals/ families to remain/ immigrate to Halton	Individuals and families within Halton High Importance	Permanent High Magnitude Long term Indirect	High Positive	No mitigation measures provided as part of this Project	High Positive
	Increased pressure to community facilities and services (e.g. health centres, hospitals, leisure facilities).	Individuals and families within Halton High Importance	Permanent Moderate Magnitude Long term Indirect	Moderate Negative	No mitigation measures provided as part of this Project	Moderate Negative
Change to Employment Opportunities	Creation of jobs directly through operation of the Project	Appropriately skilled/ qualified individuals seeking employment within Halton High Importance	Permanent High Magnitude Long term	Moderate Positive	No enhancement measures required	Moderate Positive

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
			Direct			
	Change in travel patterns and job catchment areas due to tolling	Employees – who travel to work in Halton by private vehicle High Importance	Permanent High Magnitude Long term Direct	High Negative	Provision of Sustainable Transport Strategy	High Negative
	Creation of jobs through associated regeneration	Appropriately skilled/ qualified individuals seeking employment within Halton High Importance	Permanent High Magnitude Long term Indirect	High Positive	No enhancement measures provided as part of this Project	High Positive
Change in perception of, or actual health and safety issues for individuals in Halton	Provision of pedestrian and cycling facilities (directly and indirectly as a result of the Project)	Individuals and families within 2km walking distance and 5km cycling distance from the SJB High Importance	Permanent Moderate Magnitude Long term Indirect	High Positive	Integration of pedestrian and cycling facilities with Halton' s Sustainable Transport Network through the Sustainable Transport Strategy Increase awareness of new and improved routes with adequate signage and publicity.	High Positive
		Individuals and families within the rest of Halton Moderate Importance	Permanent Low Magnitude Long term Indirect	Moderate Positive		Moderate Positive
	Contamination risks through soil, sediment, and groundwater.	All Receptors – as defined in Chapter 14		Not Significant	No mitigation measures required	Not Significant
	Changes in Air Quality – emissions of NO_2	Users of the SJB and Greenway Road High Importance	Permanent Moderate Magnitude Long term Indirect	High Positive	No enhancement measures required	High Positive
	Changes in Air	Individuals and families	Permanent	Moderate Positive	No enhancement measures required	Moderate Positive

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
	Quality – emissions of NO_2	within the rest of Halton High Importance	Moderate Magnitude Long term Indirect			
	Changes in Air Quality – emissions of NO_2, PM_{10} and CO_2	Individuals and families within the North West Moderate Importance	Permanent Moderate Magnitude Long term Indirect	Low Positive	No enhancement measures required	Low Positive
	Changes in Noise and Vibration	Individuals at Weston Point and West Bank School High Importance	Permanent High Magnitude Long term Indirect	High Positive	No enhancement measures required	High Positive
		Individuals and families residing in close proximity to the SJB High Importance	Permanent Moderate Magnitude Long term Indirect	Moderate Positive	No enhancement measures required	High Positive
		Individuals and families residing in close proximity to construction areas F, G and H High Importance	Permanent Low Magnitude Long term Indirect	Low Negative	No additional mitigation recommended further to that detailed within the Noise and Vibration Chapter 17.	Low Negative
	Changes in health due to perception of a change in landscape and amenity	Individuals and families within Halton High Importance	Temporary Low Magnitude Short term Indirect	Not Significant	No mitigation measures required	Not Significant
Change in access	Navigational Effects	Users of watercourses within	Temporary	Not Significant	No mitigation measures required	Not Significant

Impact	Effect	Receptor and Importance	Nature of Effect	Significance (High/ Moderate/ Low and Positive / Negative)	Mitigation and Enhancement Measure	Residual Significance (Positive/ Negative and High/ Moderate/ Low)
	to users of Watercourses	Halton - High Importance	Low Magnitude Long term Direct			
to facilities and social networks	Provision of improved access routes	Travelling Public – Car Users High Importance	Permanent Moderate magnitude Long term Direct	High Positive	No enhancement measures required	High Positive
		Pedestrians and cyclists undertaking cross River trips within Halton High Importance	Permanent Moderate magnitude Long term Direct	High Positive	No enhancement measures required	High Positive
		Users of Public Transport undertaking cross River trips in Halton High Importance	Permanent Low magnitude Long term Direct	High Positive	No enhancement measures required	High Positive
	Disruption and closure of footpaths and cycleways	Pedestrians and cyclists within Halton undertaking non cross River trips High Importance	Permanent Low magnitude Long term Direct	Low Negative	No mitigation measures recommended further to those detailed within the Transport Chapter 16.	Low Negative
	Change to daily movements through implementation of tolling	Travelling Public – Car Users High Importance	Temporary High Magnitude Long term Direct	High Negative	Provision of Sustainable Transport Strategy	High Negative

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