

Strategic Consulting Report: 644-00206b  
September 2010

# City Waterside East Regeneration Masterplan Options Health Impact Assessment MAIN HIA REPORT FINAL

Report prepared by: Dr Salim Vohra, Centre for Health Impact Assessment  
Gifty Amo-Danse, Centre for Health Impact Assessment  
Alexandra Moores, Stoke-on-Trent Healthy Cities  
Dr Marcus Chilaka, University of Salford

COMMISSIONED BY

NORTH  
STAFFORDSHIRE  
*Regeneration*  
PARTNERSHIP

**renew**  
North Staffordshire  
*changing places: transforming lives*



**NHS**  
**Stoke on Trent**  
**NHS**

**North Staffordshire**  
**STAFFORDSHIRE**  
*moorlands*  
DISTRICT COUNCIL

RESEARCH CONSULTING SERVICES

Multi-disciplinary specialists in Occupational and Environmental Health and Hygiene

[www.iom-world.org](http://www.iom-world.org)



The Institute of Occupational Medicine is a major independent centre of scientific excellence in the fields of occupational, environmental and public health, hygiene and safety. We were founded as a charity in 1969 by the UK coal industry in conjunction with the University of Edinburgh and became fully independent in 1990. Our mission is to benefit those at work and in the community by providing quality research, consultancy and training and by maintaining our independent, impartial position as an International Centre of Excellence. The Institute has more than 120 scientific and technical staff based in Edinburgh, Chesterfield, London, and Stafford. Consultancy work is undertaken through IOM Consulting Limited which is a wholly owned subsidiary.

IOM's core values are: independence, integrity and authority.

The Centre for Health Impact Assessment was set up in September 2007 to provide a strategic focus to the HIA research and consulting work of the Institute.

The vision of IOM CHIA is to be a Centre of Excellence in:

- Health impact assessment theory and practice
- Healthy public policy
- Evidence-based analysis and evaluation of the impacts of policies and programmes on health
- Researching the wider determinants of health and wellbeing
- Tackling environmental and health inequalities
- Healthy urban planning and development
- Urban and rural regeneration and health



## **Acknowledgements**

We would like to thank and acknowledge the feedback and contribution of:

- The HIA Steering Group
- Mike Gilbert, RENEW North Staffordshire



# Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
<b>2</b>	<b>What is Health Impact Assessment?.....</b>	<b>3</b>
2.1	Introduction .....	3
2.2	Health Impact Assessment .....	3
2.3	A holistic approach to health impacts .....	6
2.4	General steps in HIA .....	6
<b>3</b>	<b>Methodology and Scope of this HIA.....</b>	<b>8</b>
3.1	Introduction .....	8
3.2	Screening.....	8
3.3	Scoping.....	8
3.4	Baseline assessment and community health profile .....	10
3.5	Consultation and involvement .....	10
3.6	Evidence and analysis .....	10
3.7	Recommendations.....	12
3.8	Follow up .....	13
3.9	Limitations of this HIA.....	13
<b>4</b>	<b>Background to the City Waterside East Masterplan Design Options .....</b>	<b>14</b>
4.1	Introduction .....	14
4.2	Background to the proposed scheme .....	14
4.3	Aim of the proposal .....	15
<b>5</b>	<b>Policies Relevant to the City Waterside East Masterplan Design Options</b>	<b>25</b>
5.1	Introduction .....	25
5.2	National policy.....	25
5.3	Regional policy.....	32
5.4	Local policy .....	34
5.5	Policy analysis .....	36
<b>6</b>	<b>Baseline and Community Profile.....</b>	<b>37</b>
6.1	Introduction .....	37
6.2	Stoke on Trent City health profile .....	37
6.3	Population characteristics .....	39
6.4	Ethnic profile .....	39
6.5	Religion.....	40
6.6	Family structure.....	40
6.7	Health and wellbeing status .....	41
6.8	Deprivation, social capital and community cohesion .....	43
6.9	Housing.....	45
6.10	Education .....	46
6.11	Employment and economy .....	48
6.12	Transport and connectivity .....	49
6.13	Health and social care .....	50
6.14	Crime and safety .....	50
6.15	Shops and retail amenities.....	52
6.16	Culture and leisure .....	52
6.17	Land and spatial.....	53
6.18	Summary of community profile .....	53
<b>7</b>	<b>Evidence on the Health Impacts of Housing Led Regeneration Schemes.</b>	<b>55</b>
7.1	Introduction .....	55
7.2	New Housing and Housing Improvements .....	57

7.3	Land use mix.....	58
7.4	Access and availability of services.....	59
7.5	Transport and Connectivity.....	60
7.6	Proximity of employment sites to residential areas.....	61
7.7	Greenspace.....	62
7.8	Climate Change.....	63
7.9	Conclusion.....	64
<b>8</b>	<b>City Waterside East Masterplan Design Options ‘Health Proofing’ Review Findings.....</b>	<b>65</b>
8.1	Introduction.....	65
8.2	Healthy Urban Planning Principles used to Guide the Analysis of Potential Health Impacts.....	66
8.3	Analysis of the Four Masterplan Options.....	68
8.4	Recommendations.....	71
<b>9</b>	<b>Community Views on the City Waterside East Masterplan Design Options.....</b>	<b>75</b>
9.1	Introduction.....	75
Table 9.1	Community feedback on the CWE 4 Draft Masterplan Design Options.....	76
9.2	Conclusion.....	76
<b>10</b>	<b>Health Impacts of the Final Preferred City Waterside East Masterplan Design Option.....</b>	<b>77</b>
10.1	Introduction.....	77
10.2	Factors influencing the implementation phase.....	79
10.3	Factors influencing the operation phase.....	79
10.4	Health impacts – implementation phase.....	80
10.5	Health impacts – short term/long term operation phase.....	83
10.6	Health impacts on existing residents.....	86
10.7	Health impacts on new residents.....	86
10.8	Health impacts on children and young people.....	86
10.9	Health impacts on women.....	87
10.10	Health impacts on older people.....	88
10.11	Health impacts on people with disabilities.....	88
10.12	Health impacts on black and minority ethnic groups.....	88
10.13	Health impacts on low income/unemployed people.....	89
10.14	Long term and cumulative impacts.....	89
10.15	Equity impacts.....	90
10.16	Conclusion.....	90
<b>11</b>	<b>Measures to Optimise the Potential Health Outcomes.....</b>	<b>95</b>
11.1	Introduction.....	95
11.2	Design aspects.....	96
11.3	Implementation phase.....	99
11.4	Operation phase.....	103
11.5	Health activities allied to the operation phase.....	104
11.6	Climate change considerations in design aspects and implementation and operation phases.....	104
<b>12</b>	<b>Monitoring and Evaluation of the Potential Health Impacts.....</b>	<b>105</b>
12.1	Introduction.....	105
12.2	Monitoring and evaluation.....	106
<b>13</b>	<b>Conclusion.....</b>	<b>108</b>
<b>Appendix A: HIA Project Steering Group Members.....</b>		<b>109</b>
<b>Appendix B: Search Strategy for the Evidence Review.....</b>		<b>113</b>
<b>Appendix C: Detailed Health Impact Tables.....</b>		<b>117</b>



# 1 Introduction

1.1.1 This Health Impact Assessment is one of four which have been commissioned by RENEW North Staffordshire, North Staffordshire Regeneration Partnership, NHS North Staffordshire, Staffordshire Moorlands District Council, NHS Stoke-on-Trent and Stoke City Council.

1.1.2 The HIA assessed the potential health and wellbeing impacts of the City Waterside East (CWE) Masterplanning Design Options and identified opportunities for maximising the potential positive and minimising the potential negative impacts of the Final Preferred Design Option.

1.1.3 The objectives of the HIA were to:

- i. **Identify health and wellbeing impacts of the Four Draft Masterplan Options and the Final Preferred Masterplan Option by conducting:**
  - A rapid review of the Four Masterplan Design Options
  - A rapid HIA of the Final Preferred Masterplan Option.
- ii. **To identify and prioritise the potential direct and indirect health impacts on existing and new residents of CWE.** The key areas of focus were:
  - Incorporation of greenspace and how this can be used to mitigate poor health/maximise health outcomes for new residents and the wider community.
  - Issues of community cohesion (particularly in relation to culture/ethnicity) and health inequalities.
  - Promotion of economic inclusion and the local economy.
  - Promotion of active living and physical activity.
  - Promotion of sustainability and 'Green' Agendas
- iii. **Develop a set of recommendations for optimising the impacts on health and wellbeing:**

To develop a range of mitigation and enhancement measures to minimise the negative health impacts and maximise the positive health benefits of the

Preferred Masterplan Option. Identified measures would need to be feasible, financially viable, deliverable and able to be incorporated into the Detailed Final Preferred Masterplan design and its implementation.

iv. **Identify possible monitoring and evaluation indicators:**

To identify, where possible, health and wellbeing indicators that could be used to monitor and evaluate the actual health and wellbeing impacts of the Preferred Masterplan Option during its implementation and short and long term operation phases.

v. **Prepare an innovation and learning research paper on the feasibility, and merit of HIA to the longer term sustainability and 'green' agendas including sustainable development and climate change:**

To use the action learning from the HIA process to assess the value of HIA in promoting sustainability agendas through sustainable development and adapting to climate change. This will form the basis for informing future thinking around sustainability principles in Stoke-on-Trent to ensure that both positive and negative potential health impacts are not overlooked.

1.1.4 The HIA drew on past and current work on developing a sustainable and viable Masterplan Design to physically regenerate the CWE area.

## 2 What is Health Impact Assessment?

### 2.1 Introduction

2.1.1 This chapter outlines what health impact assessment (HIA) is and the Institute of Occupational Medicine's ethos and approach to HIA.

### 2.2 Health Impact Assessment

2.2.1 The international Gothenburg consensus definition of HIA is: "A combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population."<sup>1</sup>

2.2.2 HIA is a key systematic approach to predicting the magnitude and significance of the potential health and wellbeing impacts, both positive and negative, of new plans and projects.

2.2.3 HIA uses a range of structured and evaluated sources of qualitative and quantitative evidence that includes public and other stakeholders' perceptions and experiences as well as public health, epidemiological, toxicological and medical knowledge.

2.2.4 HIA is particularly concerned with the distribution of effects within a population, as different groups are likely to be affected in different ways, and therefore looks at how health and social inequalities might be reduced or widened by a proposed plan or project.

2.2.5 The aim of HIA is to support and add value to the decision-making process by providing a systematic analysis of the potential impacts as well as recommending options, where appropriate, for enhancing the positive impacts, mitigating the negative ones and reducing health inequalities.

2.2.6 HIA uses both a biomedical and social definition of health, recognising that though illness and disease (mortality and morbidity) are useful ways of understanding and measuring health they need to be fitted within a broader understanding of health and wellbeing to be properly useful (See Figure 2.1).

---

<sup>1</sup> WHO European Centre for Health Policy; Health impact assessment: main concepts and suggested approach; Gothenburg consensus paper; WHO Regional Office for Europe; 1999.

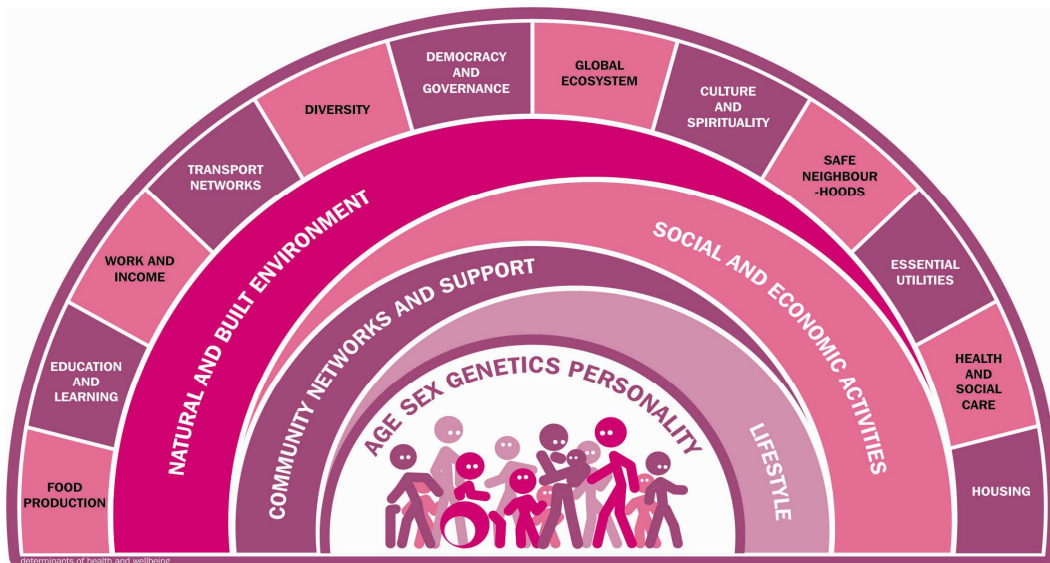


Figure 2.1: The determinants of health and wellbeing<sup>2</sup>

2.2.7 HIA therefore uses the following World Health Organization psycho-social definition of health in our work: Health is “the extent to which an individual or group is able to realise aspirations and satisfy needs, and to change or cope with the environment. Health is therefore a resource for everyday life, not the objective of living; it is a positive concept, emphasizing social and personal resources, as well as physical capacities.”<sup>3</sup>

2.2.8 This definition builds on and is complementary to the longer established World Health Organization definition that “Health is a state of complete physical, social and mental wellbeing and not simply the absence of disease or infirmity”<sup>4</sup>.

2.2.9 The general methodology is based on established good practice guidance on HIA developed by the Department of Health and the Devolved Regions.<sup>5 6 7 8</sup>

<sup>2</sup> Adapted by Salim Vohra and Dean Biddlecombe from Dahlgren G and Whitehead, Policies and strategies to promote social equity in health; Institute of Future Studies; Stockholm; 1991.

<sup>3</sup> World Health Organization; Health Promotion: A Discussion Document on the Concepts and Principles; WHO Regional Office for Europe; Copenhagen; 1984.

<sup>4</sup> World Health Organization; Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June 1946, and entered into force on 7 April 1948.

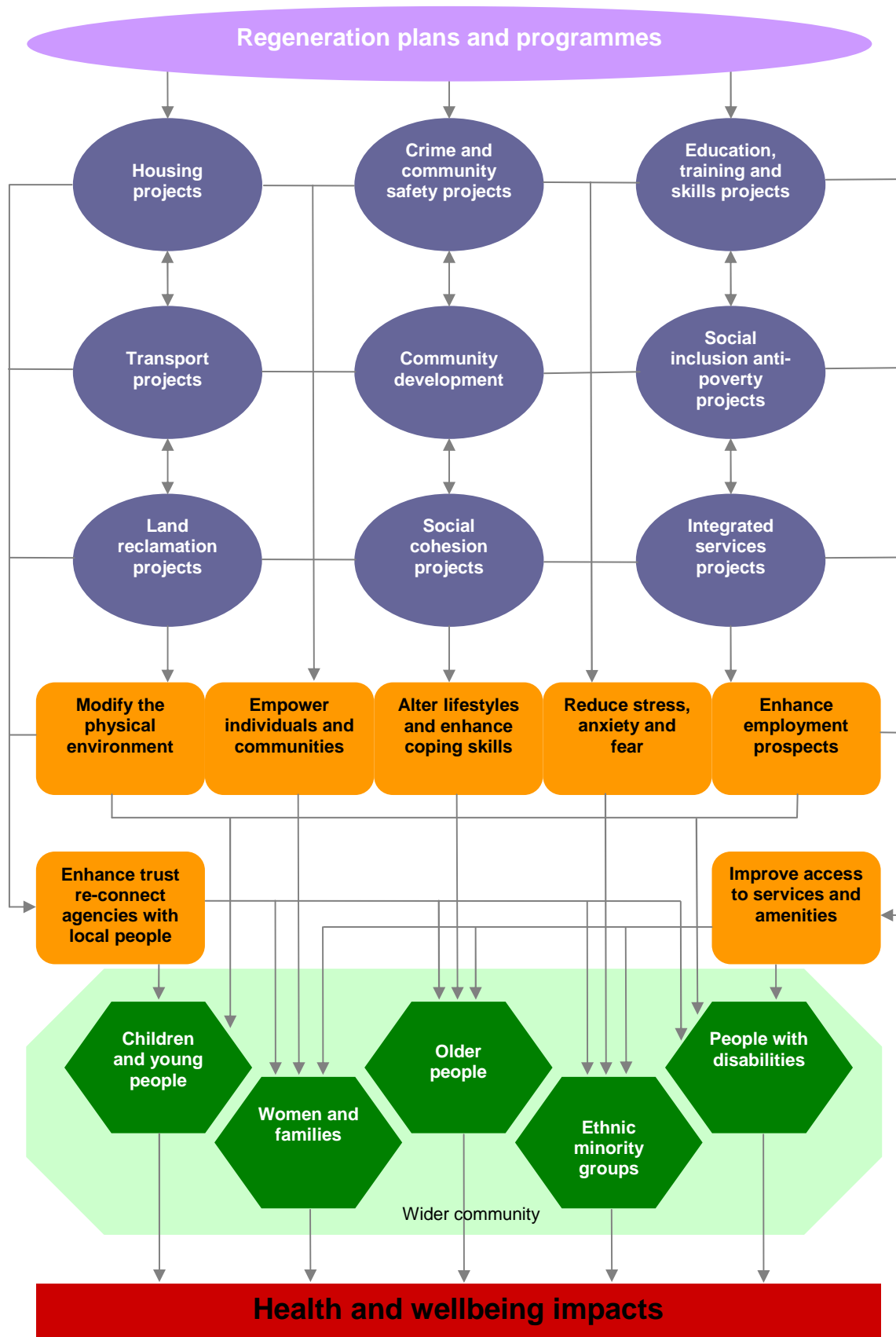
<sup>5</sup> Health Development Agency, Introducing health impact assessment (HIA) informing the decision-making process, England; 2002.

<sup>6</sup> NHS Executive; Resources for HIA: Volumes 1 & 2; England; 2000.

<sup>7</sup> Welsh Assembly Government and Health Challenge Wales; Improving Health and Reducing Inequalities: a practical guide to health impact assessment; 2004.

<sup>8</sup> Public Health Institute of Scotland; HIA: a guide for local authorities; Scottish HIA network; 2001.

Fig 2.2: A systems view of regeneration and health impacts (adapted from Hirschfield et al, 2001)



## 2.3 A holistic approach to health impacts

2.3.1 This HIA takes a holistic or 'systems view' of potential health impacts and Figure 2.2 shows how this HIA conceptualises the general links between regeneration plans and programmes and health and wellbeing impacts.<sup>9</sup>

## 2.4 General steps in HIA

### Screening

2.4.1 This stage assesses the value of carrying out a HIA by examining the importance of a plan or project and the significance of any potential health impacts.

### Scoping

2.4.2 This stage sets the 'terms of reference' for the HIA i.e. the aspects to be considered, geographical scope, population groups that might need particular focus, what will be excluded from the HIA, how the HIA process will be managed and so on.

### Baseline assessment and community profile

2.4.3 This stage uses routine national and local datasets e.g. national census, local surveys, area profiles, and other demographic, social, economic, environmental and health information to develop a community profile with a strong focus on health and wellbeing issues, and identification of vulnerable groups, as a baseline from which to assess the potential positive and negative impacts on health and any health inequalities.

### Stakeholder consultation and involvement<sup>10</sup>

2.4.4 This stage applies to intermediate and comprehensive HIAs where no previous consultation on a development has taken place. It uses workshops, questionnaires, interviews, surveys and other methods of consultation and involvement to engage key stakeholders, in particular local people, in the

---

<sup>9</sup> Hirschfield et al; Health impact assessment: measuring the effect of public policy on variation in health; University of Liverpool; 2001.

<sup>10</sup> **Rapid HIAs** are rapid desktop analyses that take days or weeks to carry out. **Intermediate HIAs** are detailed desktop analyses with some focussed stakeholder consultation or feedback, e.g. stakeholder workshops and interviews, that take weeks and months to carry out. **Comprehensive HIAs** are exhaustive analyses involving comprehensive consultation of stakeholders through representative surveys, workshops and interviews that take a year or more to carry out.

identification and analysis of the potential health and wellbeing impacts, in the development of mitigation and enhancement measures; and in developing options for monitoring and evaluating the identified impacts.

#### Evidence and analysis

2.4.5 This stage involves the collation of key evidence and the systematic analysis of the potential impacts, their significance, the groups likely to be most affected and the strength of the evidence for these impacts through the use of tables, matrices and models.

#### Mitigation and enhancement measures

2.4.6 This stage involves the identification of a range of measures to minimise the potential negative health effects and maximise the positive health benefits identified in the previous stages.

#### Health impact statement

2.4.7 This stage produces the final HIA report or health statement.

2.4.8 It involves summarising the key conclusions, options and recommendations emerging from the assessment including identifying, where appropriate, monitoring indicators to ensure that health and wellbeing are maintained during the whole lifecycle of a project or plan.

#### Follow up

2.4.9 This stage involves the active follow up of the project or plan to monitor and/or ensure that mitigation and enhancement measures have been put in place after a project or plan is approved.

2.4.10 It can also involve: a) the development of a specific Health Management Plan or Health Action Plan b) presentation of the findings to key professional stakeholders; c) the development and implementation of a health impact communication plan to ensure that local communities fully understand the findings of the HIA and how and why it was carried out; and d) the evaluation of the effectiveness and value of the HIA process itself.

## 3 Methodology and Scope of this HIA

### 3.1 Introduction

3.1.1 The following sections describe the methodology applied to this HIA. It describes the scope of the HIA in terms of the study area and population; sources of information consulted; level of stakeholder consultation and involvement; and the assessment criteria and framework used.

3.1.2 The HIA used existing data and information from earlier assessment studies and consultations as well as routine data sources such as Stoke-on-Trent Knowledge Management Unit, the Office for National Statistics, NHS North Staffordshire, the West Midlands Public Health Observatory and the Audit Commission.

3.1.3 This assessment was an intermediate level in-depth HIA which included focused discussions with key public sector stakeholders and liaison with RENEW North Staffordshire.

3.1.4 The HIA was undertaken between August 2009 and July 2010.

### 3.2 Screening

3.2.1 A screening undertaken by the HIA Project Steering Group identified the value of undertaking a HIA on the regeneration of CWE in 2008.

### 3.3 Scoping

#### Project Steering Group

3.3.1 A HIA project steering group made up of a range of stakeholders provided advice, guidance and support during the 4 Pilot HIAs. A full list of the HIA Project Steering Group members is provided in Appendix A.

#### Study area

3.3.2 The geographic scope of this HIA, where the potential negative health and wellbeing impacts are most likely to be experienced, was the CWE masterplan boundary. See Chapter 4 and Figure 4.1.



### Study population

3.3.3 The population scope of this HIA was:

- 3.3.3.1 Existing residents living in CWE.
- 3.3.3.2 New residents who are likely to move into CWE when the new housing is built.
- 3.3.3.3 Other residents in the area surrounding CWE.

3.3.4 The key population sub-groups that the HIA focused on were: older people; people with disabilities; women; children and young people; people from minority ethnic backgrounds and those on low incomes/or are unemployed.

### Determinants of health considered

3.3.5 The key determinants of health and wellbeing that were considered were:

- infectious diseases
- acute and chronic diseases (including the effects from air, water, soil and noise pollution)
- physical injury (including poisoning)
- mental health and wellbeing (including nuisance and annoyance effects)
- jobs and economy
- housing and shelter
- transport and connectivity
- education and learning
- crime and safety
- health and social care services
- shops and retail amenities
- social capital and community cohesion
- arts and leisure
- lifestyle and daily routines
- energy and waste
- land and spatial.

### **3.4 Baseline assessment and community health profile**

- 3.4.1 The baseline assessment and community profile was developed from data collected by the Stoke-on-Trent Knowledge Management Unit, Stoke City Council Office for National Statistics, West Midlands Public Health Observatory and the Audit Commission
- 3.4.2 The baseline studies carried out by Taylor Young were also used to inform the profile.

### **3.5 Consultation and involvement**

- 3.5.1 There was a wider Masterplan Community Consultation Programme carried out by Taylor Young to gather feedback from local residents on their views about the positives and negatives of the Four Draft Masterplan Design Options and the Final Preferred Masterplan Design Option. A separate HIA-specific community consultation was therefore not undertaken.
- 3.5.2 As part of the HIA, discussions were held on the Four Draft Masterplan Design Options with a range of stakeholders to gain feedback on what aspects of the masterplans worked well, or not, in terms of community health and wellbeing, based on their knowledge and experience of working in the area.

### **3.6 Evidence and analysis**

- 3.6.1 The HIA used past HIAs and evidence reviews on the health impacts of housing renewal-led regeneration schemes and regeneration in general to inform the analysis of the likely positive and negative health and wellbeing impacts of the proposed regeneration. Appendix B outlines the approach used to collate the evidence.
- 3.6.2 The HIA was qualitative and used a matrix table to identify the potential positive and negative health and wellbeing impacts (See Appendix C). The identified impacts were then classified using the levels of impact defined in Table 3.1.
- 3.6.3 The potential impacts were compared to a 'Do Nothing' option for the implementation, short term operation and long term operation phases of the Final Preferred Masterplan Option.

**Table 3.1: Definition of the levels of potential impact**

Significance Level	Criteria
<p>Major +++/-- (positive or negative)</p>	<p>Health effects are categorised as a major positive if they prevent deaths/prolong lives, reduce/prevent the occurrence of acute or chronic diseases or significantly enhance mental wellbeing would be a major positive.</p> <p>Health effects are categorised as a major negative if they could lead directly to deaths, acute or chronic diseases or mental ill health.</p> <p>The exposures tend to be of high intensity and/or long duration and/or over a wide geographical area and/or likely to affect a large number of people (e.g. over 500) and/or sensitive groups e.g. children/older people.</p> <p>They can affect either or both physical and mental health and either directly or through the wider determinants of health and wellbeing.</p> <p>They can be temporary or permanent in nature.</p> <p>These effects can be important local, district, regional and national considerations.</p> <p>Mitigation measures and detailed design work can reduce the level of negative effect though residual effects are likely to remain.</p>
<p>Moderate ++/-- (positive or negative)</p>	<p>Health effects are categorised as a moderate positive if they enhance mental wellbeing significantly and/or reduce exacerbations to existing illness and reduce the occurrence of acute or chronic diseases.</p> <p>Health effects are categorised as a moderate negative if the effects are long term nuisance impacts, such smell and noise, or may lead to exacerbations of existing illness. The negative impacts may be nuisance/quality of life impacts which may affect physical and mental health either directly or through the wider determinants of health.</p> <p>The exposures tend to be of moderate intensity and/or over a relatively localised area and/or of intermittent duration and/or likely to affect a moderate-large number of people e.g. between 100-500 or so and/or sensitive groups.</p> <p>The cumulative effect of a set of moderate effects can lead to a major effect.</p> <p>These effects can be important local, district and regional considerations.</p> <p>Mitigation measures and detailed design work can reduce and in some/many cases remove the negative and enhance the positive effects though residual effects are likely to remain.</p>

Significance Level	Criteria
Minor/Mild +/- (positive or negative)	<p>Health effects are categorised as minor/mild whether, positive or negative, if they are generally lower level quality of life or wellbeing impacts.</p> <p>Increases or reductions in noise, odour, visual amenity, etc are examples of such effects.</p> <p>The exposures tend to be of low intensity and/or short/intermittent duration and/or over a small area and/or affect a small number of people e.g. less than 100 or so.</p> <p>They can be permanent or temporary in nature.</p> <p>These effects can be important local considerations.</p> <p>Mitigation measures and detailed design work can reduce the negative and enhance the positive effects such that there are only some residual effects remaining.</p>
Neutral/No Effect ~	No health effect or effects within the bounds of normal/accepted variation.

#### 3.6.4 For each potential health impact ten key issues were considered

- Which population groups are affected and in what way?
- Is the effect reversible or irreversible?
- Does the effect occur over the short, medium or long term?
- Is the effect permanent or temporary?
- Does it increase or decrease with time?
- Is it of local, regional or national importance?
- Is it beneficial, neutral or adverse?
- Are health standards or environmental objectives threatened?
- Are mitigating measures available and is it reasonable to require these?
- Are the effects direct, indirect and or cumulative?

### 3.7 Recommendations

3.7.1 A set of general recommendations were developed on the Four Draft Masterplan Options as well as for the Final Preferred Masterplan Option. In addition a set of recommendations for the mitigation and enhancement for the implementation and short and long term operation phases were also developed.

### **3.8 Follow up**

3.8.1 Health and wellbeing indicators that could be used to monitor and evaluate the scheme were identified.

### **3.9 Limitations of this HIA**

3.9.1 The main limitations were:

- The lack of current population statistics due to the frequent movement of people out of the area caused by the demolition process.
- The data available for CWE covers a much wider area, Hanley East and Joiner Square Neighbourhood Zone and therefore there is a difficulty in establishing how well the data is representative of CWE.

# 4 Background to the City Waterside East Masterplan Design Options

## 4.1 Introduction

4.1.1 This chapter provides background details of the four Draft Masterplan Design Options and the Final Preferred City Waterside East (CWE) Masterplan Design Option. See Figures 4.3-4.5 for the Draft Masterplan Design Options. The Final Preferred Masterplan Design Option can be found in Chapter 10.

## 4.2 Background to the proposed scheme<sup>11</sup>

4.2.1 CWE in Stoke-on-Trent is located within Neighbourhood Zone 26- Hanley East and Joiner Square. (See Figure 4.2)

4.2.2 This area is known for its natural scenery with countryside views and the Caldon Canal which runs through it from east to west. Historically, the area was an important hub for the pottery industry with many canalside factories with the Caldon Canal transporting limestone to The Potteries from quarries in the Peak District. However, since the decline of the pottery industry, the area is now characterised by vacant and derelict sites which adversely affects the image of the area.

4.2.3 RENEW North Staffordshire along with other partners (Stoke-on-Trent City Council, British Waterways, North Staffordshire Regeneration Zone and the Housing Corporation) commissioned EDAW to produce an area masterplan to define the vision for the whole of City Waterside. Taylor Young were then commissioned to build upon this vision and area masterplan and produce a Comprehensive Masterplan for the CWE area only.

4.2.4 A baseline report was initially produced which provided the context and informed the detailed CWE Masterplan Design Options and the Final Preferred Masterplan Design.

---

<sup>11</sup> City Waterside East Masterplan Baseline Report. Taylor Young. 2009.

4.2.5 The four Draft Masterplans Design Options produced by Taylor Young were then presented to local professional stakeholders for feedback. These four options were also presented to local communities at a series of workshops and exhibitions to obtain their feedback.

4.2.6 The final stage focused on developing the Final Preferred Masterplan Design Option for CWE based on testing of the alternative options in terms of feasibility, economic viability and consideration of the feedback received from the workshops and exhibitions (See the separate Visions and Options Report by Taylor Young).

### 4.3 Aim of the proposal

4.3.1 The overarching masterplanning vision for City Waterside East is:<sup>12</sup>

*“The creation of a thriving neighbourhood close to the City Centre, which includes existing residents and businesses and attracts new people into the area so that a vibrant community spirit is nurtured and sustained well into the future.”*

4.3.2 Six key aims which each option had to fulfil were developed from the key issues and challenges facing the area:

- i. **Connecting communities:** This involves joining together new developments with the existing neighbourhood. Improving access to the town centre, bus station, a new community centre; local shops and businesses.
- ii. **Making the most of the location and its attributes:** This involves providing St. Luke’s Primary School with green space and a pick-up/drop-off facility. Creating attractive areas of public space and new development at the canal side. Making use of views of the countryside and using the south facing slope to maximise sunshine.
- iii. **Making an asset out of the canal:** This involves providing public open space at the canal, as well as promoting leisure, and food and drink uses here. Providing a new pedestrian bridge to improve access to the towpath; and “opening up” more of the canal to the public.
- iv. **Building something unique and special:** This involves making an attractive feature of the canal. Creating a place where families want to live

---

<sup>12</sup> <http://citywaterside.stoke.gov.uk/ccm/navigation/the-vision/>

by making the most of local architecture and design; and ensuring sustainable and high quality new developments.

- v. **Creating meaningful and well used open space:** This involves creating open space which can be used by more than one user, for example the school and community together. Making sure the open space is well designed, overlooked and regarded by the community as theirs. Using open spaces to improve the image of the area and small pocket parks to help people navigate through City Waterside East.
  
- vi. **Revitalising the housing market:** This involves creating good size development plots which are attractive to private sector developers; providing a mix of high quality house types (private and rented) to encourage people and families of all ages to live here; and provide job and business opportunities in the neighbourhood.



Figure 4.1 Map of the CWE Area, boundary identified by thick blue/black line [Source: Google Maps]



Figure 4.2: City Waterside East (inner blue/black line) as part of Neighbourhood Zone 26 - Hanley East and Joiner Square (outer red/black line)

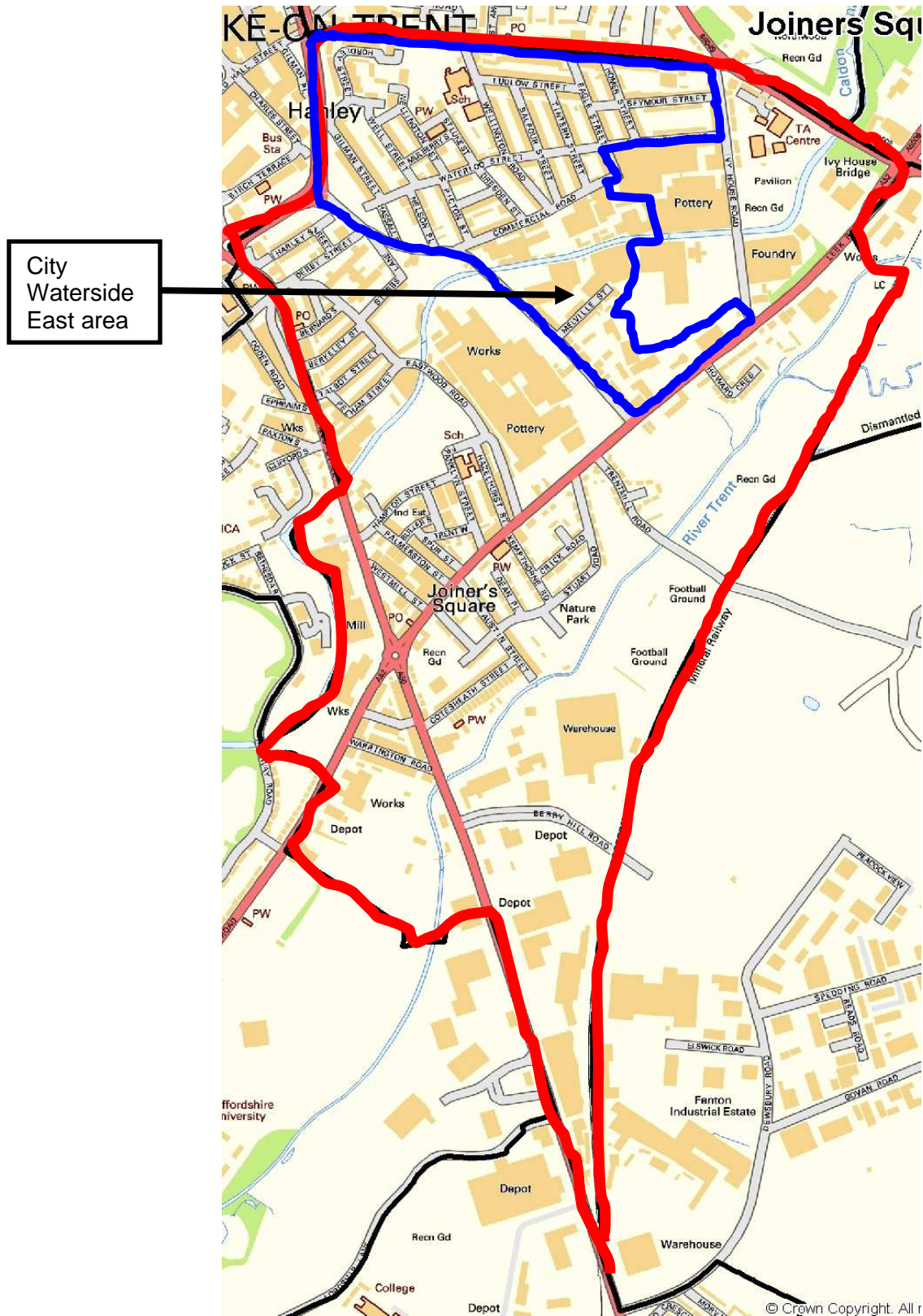


Figure 4.3: City Waterside East Masterplan Option 1 (Community Heart)

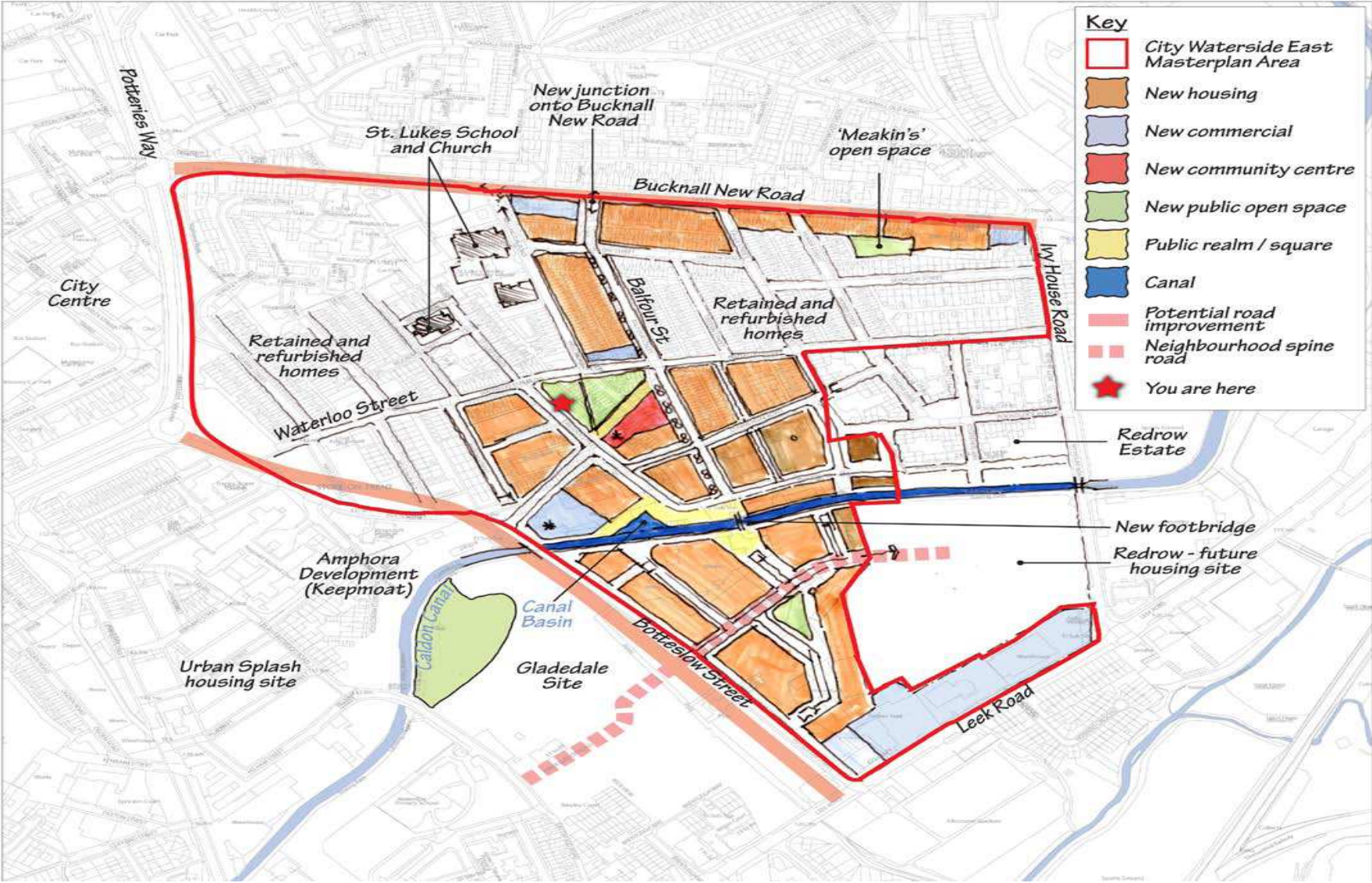


Figure 4.4: City Waterside East Masterplan Option 2 (Waterside Residential)

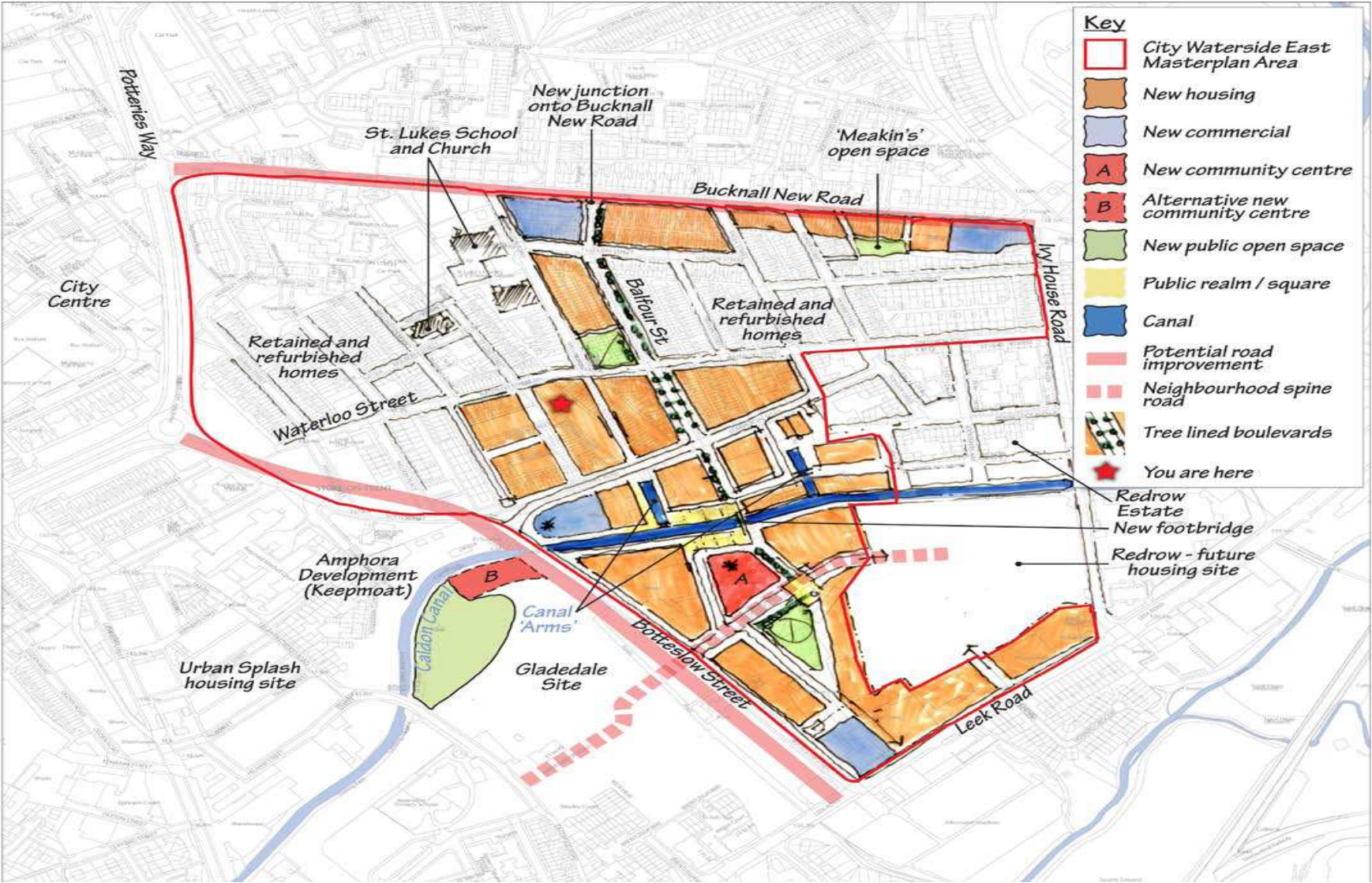


Figure 4.5: City Waterside East Masterplan Option 3 (Canal Side)

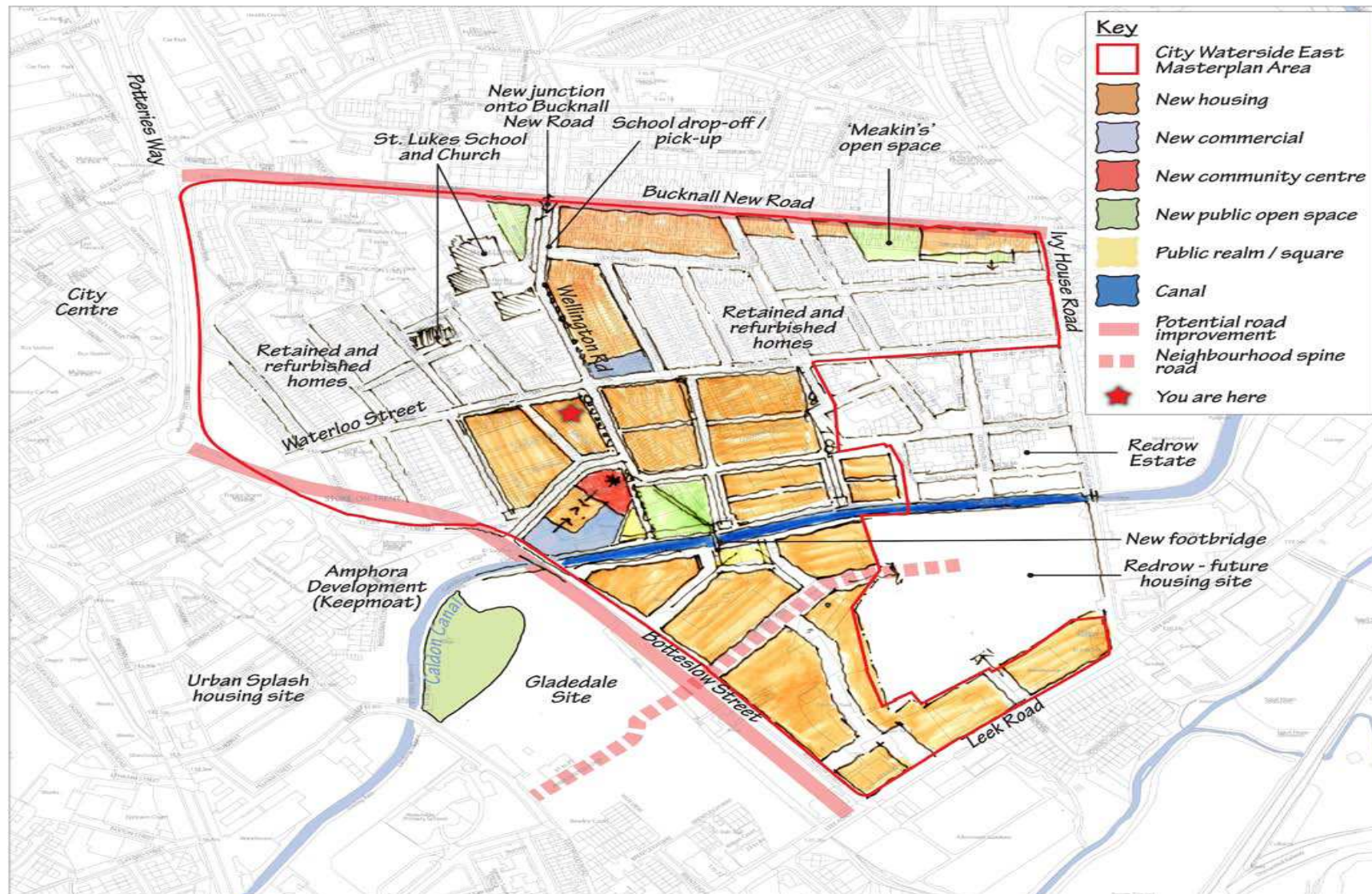
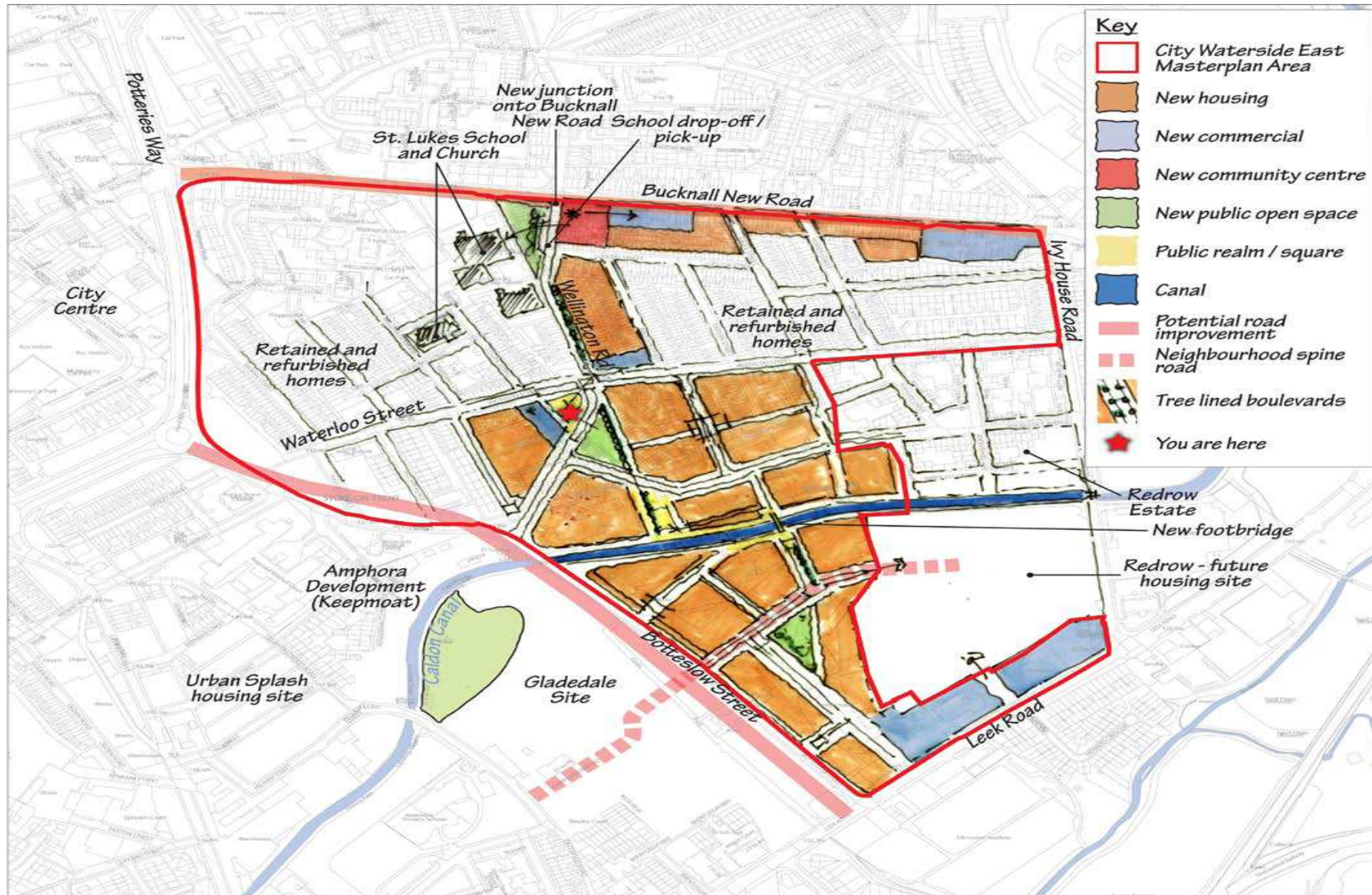


Figure 4.6: City Waterside East Masterplan Option 4 (Central Boulevard)



## CWE Masterplan Option One (1) : Community Heart

### *(Commentary by Taylor Young)*

It is essentially residential led, with the frontage onto Leek Road being predominantly used for shops and businesses.

Shops and business areas are located at the key focal points to maximise viability.

The community centre is located right in the heart of the existing residential area.

Open space is located adjacent the community centre for ease of management and access.

North – south access from Bucknall New Road is via a widened and extended Balfour Street. This ends with a pedestrian route crossing the canal linking north and south.

East –west access is provided via a network of new routes. Commercial Road disappears at Dresden Street.

Use of the canal side is maximised by residential development.

There is an opportunity to create a new, canal basin and public areas around the canal.

## CWE Masterplan Option Two (2) : Waterside Residential

### *(Commentary by Taylor Young)*

It is essentially residential led, with the frontage onto Leek Road being predominantly residential.

Shops and businesses are located where there is a lot of passing trade.

Community Centre (alternative option A) is located south of the canal at Melville Court.

Community Centre (alternative option B) is located south of the canal, north of the Gladedale site and fronts Botteslow Street.

Open space is located next to the community centre for ease of management and access.

North – south access from Bucknall New Road is via a widened and extended Balfour Street. This ends with a pedestrian route crossing the canal linking north and south via the community centre and new public open space. Open spaces is positioned along the 'route', including the community centre.

'Meakin's open space' is retained.

East –west access is provided via a slightly realigned Commercial Road.

Residential development at the canal side.

There is an opportunity to create a series of water spaces and public area around the canal, overlooked by the community centre on the tow path side.

### CWE Masterplan Option Three (3) : Canal Side

#### *(Commentary by Taylor Young)*

It is essentially residential led, with the frontage onto Leek Road being predominantly residential.

The shops and business areas are kept to a minimum with one large area off Botteslow Street and a smaller area along Waterloo Street complement existing shops and businesses.

The community centre is located north of the canal in the proximity of Commercial Road close to shops and businesses and the public open space.

The main area of open space is located between the canal and community centre. The realigned Wellington Road provides the school with open green space and 'Meakin's open space' is retained and extended.

North – south access from Bucknall New Road is via a widened, extended and boulevard Wellington Road. This ends at the community centre and open space with a pedestrian route to a bridge crossing the canal linking north and south.

With the realigned and widened Wellington Road, there is now the opportunity to provide a school pick up and drop off facility.

East –west access is provided via a new route from Botteslow Street to the new boulevard.

Residential development with the community centre / shops and businesses at the canal side.

### CWE Masterplan Option Four (4) : Central Boulevard

#### *(Commentary by Taylor Young)*

It is essentially residential led, with a mix of residential and commercial on Leek Road.

The shops and businesses areas are kept to a minimum with one large area off Leek Road and another area along Bucknall New Road to take advantage of passing trade. The existing local outlets along Waterloo Street could be strengthened by a cluster of new facilities around the open space.

Public open space is provided along the main north –south boulevard which terminates at the canal with a pedestrian footbridge to link up with more open space south of the canal. The school benefits from green space and pick up and drop off facilities.

North – south access from Bucknall New Road is via a widened, extended and boulevard Wellington Road. This ends at an area of open space at the canal side with a pedestrian route to a bridge crossing the canal linking north and south.

East –west access is provided via a new route from Botteslow Street to the new boulevard focusing on the small commercial area and open space.

Residential development at the canal side.



# 5 Policies Relevant to the City Waterside East Masterplan Design Options

## 5.1 Introduction

5.1.1 This chapter summarises the key policy context in relation to the CWE regeneration.

5.1.2 The issues emerging from the masterplanning process can be summed as 'a need for a housing and community renewal' through: a) revitalising housing, b) enhancing greenspace, c) improving connectivity and access for communities and d) making most of the heritage and assets as focal features.

## 5.2 National policy

### 5.2.1 Housing Market Renewal Pathfinder Programme (2002)

People living in areas affected by low demand often have limited housing choices. Their homes are typically valued at prices significantly below local averages, making it difficult to move. The stock available to them is often unpopular, and in poor condition.

These neighbourhoods have typically experienced long periods of economic decline, as job patterns have shifted and people have moved away to take up new opportunities. Despite being within cities where the economy is growing, these neighbourhoods remain disconnected from new jobs, with residents experiencing low skills levels, worklessness, high levels of crime or fear of crime, and poor facilities.

In 2002, nine such areas were identified by the Government as needing specific housing market renewal support through the pathfinder programme. The pathfinder programme is about housing and a much wider concerted effort to revitalise communities and economies across the North and West Midlands. North Staffordshire is one of these areas.

### 5.2.2 Homes for the future: more affordable, more sustainable - Green Paper (2007)

This Green Paper sets out proposals to improve the housing in England. It states that Government will work with its partners to provide:

- More homes to meet growing demand delivering 2 million homes by 2016 and 3 million homes by 2020 where they are needed.
- Well-designed and greener homes, linked to good schools, transport and healthcare.
- More affordable homes to buy or rent.

### 5.2.3 **Ends and means: the future roles of social housing in England (2007)**

This report examines the role of social housing in the 21st Century. It argues for more attention to four key areas:

- To increase the attention given to the existing stock and tenant population.
- To support more of an income mix within existing communities.
- To support the livelihoods of tenants and others in housing need.
- To offer a “more varied menu” for both prospective and existing tenants.

### 5.2.4 **Strong and Prosperous Communities - The Local Government White Paper (2006)**

The aim of this White Paper is to give local people and local communities more influence and power to improve their lives. It is about creating strong, prosperous communities and delivering better public services through a rebalancing of the relationship between central government, local government and local people. The key themes of the White Paper are Community Safety; Health and Wellbeing; Vulnerable People; Children, Young People and Families; Economic Development, Housing and Planning; Climate Change; and the Third Sector.

In relation to Health and Wellbeing the aim of the White paper is to improve the health and well-being of every local community and ensure that health and social care services reflect the needs and priorities of patients and their families. This White Paper will enhance local leadership on health and well-being, and will make

it easier for local authorities and NHS bodies to work together to tackle health inequalities and to deliver better services for their local area.

In relation to Vulnerable People and equalities issues the aim is to tackle social exclusion and deprivation, promoting equality for all citizens and addressing the needs of vulnerable people.

#### **5.2.5 Choosing Health: Making Healthy Choices Easier, Department of Health (2004)**

This White Paper sets out how the Government and the NHS will help people to make healthier choices for themselves; protect people's health from the actions of others; and recognise the particular needs and the importance of emotional and physical development of children and young people whilst achieving a balance between healthy outcomes and people's freedom to choose their own way of life.

#### **5.2.6 Public Service Agreement (PSA) Floor Targets**

Life expectancy: to substantially reduce mortality rates by 2010 (PSA 1)

- From heart disease, stroke and related diseases by at least 40% in people under 75 years of age, with at least a 40% reduction in the inequalities gap between the fifth of areas with the worst health and deprivation indicators and the population as a whole.
- From cancer by at least 20% in people under 75 years of age, with a reduction in the inequalities gap of at least 6% between the fifth of areas with the worst health and deprivation indicators and the population as a whole.
- Health inequalities: reduce health inequalities by 10% by 2010 as measured by infant mortality and life expectancy at birth (PSA 2)

Tackling the determinants of ill health and health inequalities by:

- Reducing adult smoking rates to 21% or less by 2010, with a reduction in prevalence among routine and manual groups to 26% or less.
- Reducing the under-18 conception rate by 50% by 2010 as part of a broader strategy to improve sexual health.

- Increasing the rate of physical activity (of at least 20 minutes a time) by 10% by 2010.
- A reduction in prescribing rates for mental health conditions to the Stoke-on-Trent average by 2010.

#### **5.2.7 Lifetime Homes, Lifetime Neighbourhoods: A National Strategy for Housing in an Ageing Society (2008)**

This strategy sets out the Government's response to the global challenge of ageing. It also outlines the Government's plans for making sure that there is enough appropriate housing available in future to relieve the forecasted unsustainable pressures on homes, health and social care services.

The first key element of this strategy is the use of the Lifetime Homes Standards. Lifetime Homes Standards are inexpensive, simple features designed to make homes more flexible and functional for all. The Government will ensure that all public sector funded housing is built to Lifetime Homes Standards by 2011 and will work closely with developers, architects, planners and other professionals to encourage take-up and to establish the most economic way to deliver the benefits of Lifetime Homes Standards.

The second is the concept of the Lifetime Neighbourhoods. It is linked to the concept of Lifetime Homes and is a neighbourhood designed to be welcoming, accessible, and inviting for everyone, regardless of age, or health, or disability. In some places these ideas are linked to 'Age-Friendly Cities'. The lifetime neighbourhood is sustainable in terms of changing climatic conditions, but it also means that transport services, housing, public services, civic space and amenities, all make it possible for people to have a full life and take part in the life of the community around them.

#### **5.2.8 Sustainable Communities: building for the future (2003)**

One element of this action plan is 'Decent Homes, Decent Places' with the aim of ensuring that all social tenants have a decent home by 2010 and to improve conditions for vulnerable people in private accommodation; to ensure all tenants, social and private, get an excellent service from their landlord; and to ensure all

communities have a clean, safe and attractive environment in which people can take pride. The Decent Homes Standard 2000 set out four key conditions:

- Be above the statutory minimum standard (i.e. the fitness standard).
- Be in a reasonable state of repair.
- Provide reasonably modern facilities and services.
- Provide a reasonable degree of thermal comfort.

This will mean that a) plans to improve social housing will be required to form part of a wider strategy for neighbourhood renewal and sustainable communities. Housing providers will work closely with Local Strategic Partnerships and New Deal for Communities/Neighbourhood Management Partnerships and b) tenants must be at the heart of plans at all stages in the process, starting with drawing up options for investment.

#### 5.2.9 **Planning Policy Statement 1: Delivering Sustainable Development (2006)**<sup>13</sup>

There are four key objectives of this PPS:

- Making suitable land available for development in line with economic, social and environmental objectives to improve people's quality of life;
- contributing to sustainable economic development;
- protecting and enhancing the natural and historic environment, the quality and character of the countryside, and existing communities;
- ensuring high quality development through good and inclusive design, and the efficient use of resources; and
- ensuring that development supports existing communities and contributes to the creation of safe, sustainable, liveable and mixed communities with good access to jobs and key services for all members of the community.
- Manual for Streets Guidance (DfT/Communities and Local Government).

---

<sup>13</sup> Planning Policy Statements (PPSs) set out the Government's national policies on different aspects of land use planning in England. The policies set out in PPSs need to be taken into account by regional planning bodies in the preparation of regional spatial strategies and by local planning authorities in the preparation of local development documents. They can be a material (important) consideration in individual planning applications.

#### 5.2.10 **Planning Policy Statement 3: Housing (2006)**

PPS 3 argues that Local Planning Authorities should encourage applicants to bring forward sustainable and environmentally friendly new housing developments, including affordable housing developments, and in doing so should reflect the approach set out in the forthcoming PPS on climate change, including the Code for Sustainable Homes. Matters to consider when assessing design quality include the extent to which the proposed development:

- Is easily accessible and well-connected to public transport and community facilities and services, and is well laid out so that all the space is used efficiently, is safe, accessible and user-friendly.
- Provides, or enables good access to, community-, green-, open amenity-, and recreational spaces (including play space) as well as private outdoor space such as residential gardens, patios and balconies.
- Is well integrated with, and complements, the neighbouring buildings and the local area more generally in terms of scale, density, layout and access.
- Facilitates the efficient use of resources, during construction and in use, and seeks to adapt to and reduce the impact of, and on, climate change.
- Takes a design-led approach to the provision of car-parking space that is well-integrated with a high quality public realm and streets that are pedestrian, cycle and vehicle friendly. – Creates, or enhances, a distinctive character that relates well to the surroundings and supports a sense of local pride and civic identity. – Provides for the retention or re-establishment of the biodiversity within residential environments.

#### 5.2.11 **PPS4: Planning for Sustainable Economic Development – Consultation (2007)**

PPS4 states that regional planning bodies and local planning authorities should:

- plan positively and proactively to encourage economic development, in line with the principles of sustainable development;

- use a wide evidence base to understand both existing business needs and likely changes in the market, to prepare policies to support sustainable economic development in their area;
- plan for, and facilitate a supply of land which will be able to cater for the differing needs of businesses and the expected employment needs of the whole community but which is flexible enough to be responsive to a changing economy or new business requirements;
- seek to ensure that economic development, regardless of location, is of high quality and inclusive design which improves the character and quality of an area and the way it functions;
- seek to make the most efficient and effective use of land and buildings; and
- take into account changing working patterns, economic data including price signals and the need for policies which reflect local circumstances.

#### 5.2.12 **Planning Policy Statement 6: Planning for Town Centres**

PPS 6 states that:

The Government is seeking to reduce the need to travel, to encourage the use of public transport, walking and cycling and reduce reliance on the private car, to facilitate multipurpose journeys and to ensure that everyone has access to a range of facilities. Good access to town centres is essential. Jobs, shopping, leisure and tourist facilities and a wide range of services should therefore be located in town centres wherever possible and appropriate, taking full advantage of accessibility by public transport.

#### 5.2.13 **Planning Policy Guidance 17: Planning for open space, sport and recreation (2006)**

This PPG demonstrates how open, sports and recreation spaces underpin people's quality of life and are therefore fundamental to delivering broader Government objectives such as:

**Supporting an urban renaissance** by helping to create attractive clean and safe urban environments as well as assist in meeting objectives to improve air quality.

**Promotion of social inclusion and community cohesion** as a focal point for community activities by providing opportunities for people for social interaction and improving their sense of wellbeing in the place they live.

**Promoting more sustainable development** by ensuring that the spaces are easily accessible by active travel or where they are more heavily used well served by public transport.

**Health and wellbeing**, as open, sports and recreational spaces play a vital role in promoting healthy living and social development of children through play, sporting activities and interaction with others.

The guidance also goes on to describe the importance of maintaining and enhancing an adequate supply of open, sports and recreational spaces to attract more people to use them and provide an important local amenity and offer recreational and play opportunities.

### 5.3 Regional policy

#### 5.3.1 West Midlands Spatial Strategy (Government Office for West Midlands (GOWM), 2008)

##### POLICY QE3: Creating High Quality Living and Working Environments

Past urban regeneration activity has tended to focus on the “worst areas” but has failed to change people’s perception of them. It has also failed to provide urban areas which are attractive to a broad range of people’s expectations and lifestyles. This guidance takes a more comprehensive approach, targeting radical change on selected areas, but aiming to raise the overall quality across the Major Urban Areas (MUAs).

##### POLICY QE8: Forestry and Woodlands

Tree planting can make important contributions to health, recreation, and regeneration and should be encouraged particularly in urban and urban fringe areas.



#### POLICY EN2: Energy Conservation

The incorporation of energy-efficient materials and technologies such as Combined Heat and Power can particularly improve the affordability of housing and also Prosperity for All policies by lowering business overheads.

#### POLICY CF1: Housing within the Major Urban Areas

This policy is aimed at creating attractive urban communities and living environments within which more people will wish to live and invest by mixing housing types, tenures and densities. Research into the Region's housing markets indicates that substantial areas within the MUAs are failing to provide the attractive choice of home and community environments needed to encourage economically active and independent households to stay.

### 5.3.2 West Midlands Regional Housing Strategy, June 2005

The RHS promotes the following:

- Residential development and improvements to the housing stock which protect and enhance the quality of the natural and built environment; and which maintains and enhances biodiversity in urban as well as rural areas.
- Development and improvements to the housing stock which utilise good design to reduce crime and fear of crime and increase 'passive security' and physical activity through encouraging utilisation of pleasant public spaces.
- Development and improvements to the housing stock which support healthy lifestyles, which reduce the need to travel and encourage the use of more sustainable forms of transport for example by ensuring that active travel is safe, easy and attractive as well as practicable.
- Housing that minimises greenhouse gas emissions, car travel and car dependence.
- Incorporating land within housing development for community services where appropriate, such as open space and recreation facilities, in the interests of creating sustainable, well managed and properly resourced communities.
- Historic housing and streetscapes within an area provide a valuable sense of place and community cohesion, engendering local identity.

### 5.3.3 West Midlands @2021 Planning for a Healthier West Midlands

This document highlights key planning themes some of which have already been raised in the above mentioned RSS for West Midlands and their relation to health. It also outlines the planning system in place and advocates the use of Section 106 agreements (negotiated between local authorities and developers) in ensuring that public health through performing Health Impact Assessments (HIA) is considered early on in the planning process.

## 5.4 Local policy

### 5.4.1 Stoke-on-Trent Community Strategy

This is a 10 year plan from 2004-2014, which is currently under review, and is based on the following vision and six pillars:

“By 2014 Stoke-on- Trent will be a thriving and diverse city where people want to live, work and study”

- **A Healthier City**
- **A Safer City**
- **A Learning City**
- **A Wealthier City**
- **A Green City**
- **A City with a Strong Sense of Community**

The Community Strategy Delivery Plan Update 2008 states a number of key goals for the coming years:

Young people aged 16 – 25 years (and children generally):

- Encourage our young people to lead healthy lives, with fewer being obese, smoking and mis-using alcohol and other substances.
- Increased opportunity and support for young people to enjoy and participate in physical activities.
- Ensure that young people feel safe in their own homes, neighbourhoods and schools.
- Enable young people to live in safe secure houses of good quality and condition that meet their needs.

Adults aged 26 – 65 years:

- Improved health of all adults, in particular we need to focus on reducing obesity, smoking, cancer, heart disease, substance misuse.
- Increased weekly incomes, with particular focus on debt and financial management; improved skills and help to find good jobs.
- Enable adults to live in safe secure houses of good quality and condition that meet their needs.
- Encourage and support adults to have respect and pride in their local communities.
- Increased opportunity and support for adults to enjoy and participate in physical activities.
- Ensure that adults feel safe in their own homes, neighbourhoods and schools.

#### 5.4.2 **Stoke on Trent Primary Care Trust (PCT) Local Delivery Plan (LDP) 2008/09**

The following issues are included in the strategic objectives of the LDP for 2008/09

- To tackle and reduce health inequalities
- Improve health promotion and disease prevention
- Improve public and patient engagement and service accessibility.

A major promise in the Stoke on Trent PCT Local Delivery Plan is to make more services available in the community and also to build more new healthcare facilities. In addition to a new City General and Heywood hospitals, 5 new Primary Care Centres are planned over the next 5 years. With the location of health services in different parts of the city (e.g. the University Hospital of North Staffordshire, GP and Dental practices, as well as other specialist and Community Healthcare facilities).

Additionally, the LDP (2008/09) makes provision for the investment of £2 million into the lifestyle programmes for those at high risk of serious illness. Over the next 3 years, the LDP proposes that 10,000 people will enter the programme and will lose weight and increase their physical activity.

#### 5.4.3 **Stoke-on-Trent PCT: Annual Report of the Director of Public Health (2007/08)**

The report identifies the health issues of significance for Stoke on Trent. The major health issues are long-term conditions such as circulatory diseases (heart conditions, stroke, high blood pressure and diabetes), cancer, respiratory disease, digestive system disorders and mental and behavioural disorders.

The key areas of work for 2008 onwards are:

- Tackling inequalities in health outcomes
- Improving life expectancy
- Improving infant mortality
- Improving cancer outcomes
- Improving respiratory health outcomes
- Reducing smoking and alcohol consumption

### 5.5 **Policy analysis**

5.5.1 Overall, the City Waterside East Masterplanning process is very strongly aligned with national, regional and local policies both in relation to improving housing and building sustainable and healthy communities.

## 6 Baseline and Community Profile

### 6.1 Introduction

6.1.1 This chapter provides a rapid health and wellbeing focused baseline and community profile of the City Waterside East (CWE) area. It is from this baseline understanding that the predictions on the potential health and wellbeing impacts of the Draft Final Preferred Masterplan have been developed.

6.1.2 The data presented in this profile is for the Hanley East and Joiner Square Neighbourhood Zone. This is because data is aggregated by neighbourhood zones in Stoke-on-Trent and there is very little CWE specific data. In this profile we have assumed that the characteristics of CWE are similar to the Hanley East and Joiner Square Neighbourhood Zone as a whole. It is likely, given that CWE has some of the most deprived parts of the neighbourhood zone that health and wellbeing are at the lower end of what is found in the Hanley East and Joiners Square Neighbourhood Zone.

### 6.2 Stoke on Trent City health profile<sup>14</sup>

6.2.1 The health of the people of Stoke-on-Trent is generally worse than the England average.

6.2.2 Many areas of Stoke-on-Trent are among the most deprived fifth of areas in England, although there is a small area that is in the least deprived fifth.

6.2.3 Death rates from all causes and early death rates from heart disease and stroke are higher than the England average. However it is worth noting that for heart disease and stroke the gap is narrowing.

6.2.4 In terms of the 'Our Communities' domain deprivation, children in poverty, teenage pregnancy, statutory homelessness, GCSE achievement (5 A\* - C) and violent crime are significantly worse than the England average.

6.2.5 In terms of the 'Children's and Young People's Health' domain, smoking in pregnancy is significantly lower than the England average but breast feeding, physical activity in children, children's tooth decay and teenage pregnancy is

<sup>14</sup> Stoke-on-Trent Health Profile 2007, 2008, 2009. Association of Public Health Observatories

significantly worse than the England average. Levels of childhood obesity are higher but not at a statistically significant level.

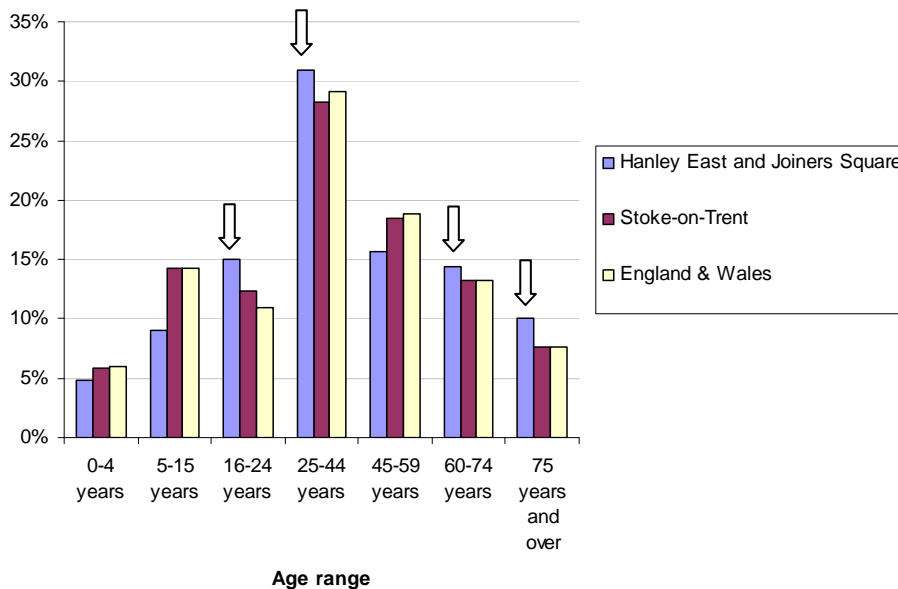
- 6.2.6 In terms of the 'Adult's Health and Lifestyle' domain, the proportion of adults who smoke, have unhealthy eating habits and are physically inactive and obese (1 in 4) is significantly higher than the England average. Evidence suggests that only 8% of adults exercise five times a week. Levels of binge drinking are higher than the England average but not at a statistically significant level.
- 6.2.7 In terms of the 'Disease and Poor Health' domain, rates of recorded and self-reported ill-health are higher than the England average. Rates of incapacity benefit for mental illness, hospital stays related to alcohol, drug misuse and people diagnosed with diabetes is significantly higher than the England average. Rates of new cases of tuberculosis and hip fractures in the over 65s is similar to the England average.
- 6.2.8 Overall, the estimated percentage of obese adults is high whilst the estimated percentage that eat healthy (fruit and vegetables) and are physically active is low.
- 6.2.9 In terms of the 'Life Expectancy and Causes of Death' domain, life expectancy for men and women is significantly less than the England average and rates of infant mortality are significantly higher. Men from the most deprived areas have almost 6 years and women 7 years less life expectancy than those from the least deprived. Data for the 1998-2005 period indicates that the Infant Mortality Rate (IMR) in Stoke-on-Trent is one-third higher than the regional rate and two-thirds higher than the England & Wales rate. Deaths from smoking are significantly worse than the England average. Deaths from all cancers are more than 30% above regional and national averages. Deaths from heart disease are above the regional and national rates; more than 55% in men, and 40% in women. Similarly, the death rate from circulatory disease is 40%, above regional and national averages. In contrast rates of road injuries and death are lower than the England average.

### 6.3 Population characteristics

6.3.1 The resident population of Hanley East and Joiners Square is approximately 4,000 compared to 241,000 in Stoke-on-Trent as a whole.

6.3.2 The highest proportion of residents, 31%, are between 25-44 years of age compared to 28% of Stoke-on-Trent and 29% of England and Wales. The lowest proportion of residents are aged 0-4 years, 5% compared to 6% of Stoke-on-Trent and England and Wales.

**Figure 6.1 Proportion of Hanley East and Joiners Square residents by age compared to Stoke-on-Trent and England and Wales as a whole [Source: ONS]**



### 6.4 Ethnic profile

6.4.1 Approximately 95% of the residents of Hanley East and Joiners Square are from a White British background.

6.4.2 2% are from a Pakistani background, compared to 3% of Stoke-on-Trent and 1% of England and Wales.

6.4.3 The percentage of households containing more than one ethnic group is 4% of Hanley East and Joiners Square compared to 3% of Stoke-on-Trent and 6% in England and Wales.

## 6.5 Religion

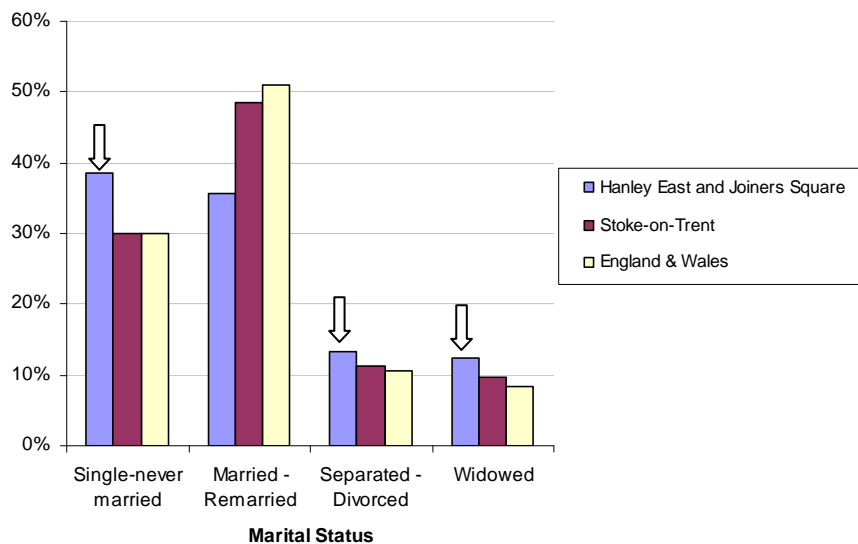
6.5.1 72% of Hanley East and Joiners Square residents are Christian compared to 75% of Stoke-on-Trent and 72% of England and Wales as a whole.

## 6.6 Family structure

6.6.1 Marital status and household composition provide a good indication of the family structure and the likely personal and social care networks that residents of an area have (See Figures 6.2 and 6.3).

6.6.2 39% of residents over the age of 16 are single and have never married compared to 30% of Stoke-on-Trent and England and Wales; 36% are married or remarried compared to 49% of Stoke-on-Trent and 51% of England and Wales; 13% are separated or divorced compared to 11% of Stoke-on-Trent and 11% of England and Wales; and 13% are widowed, compared to 10% of Stoke-on-Trent, and 8% of England and Wales.

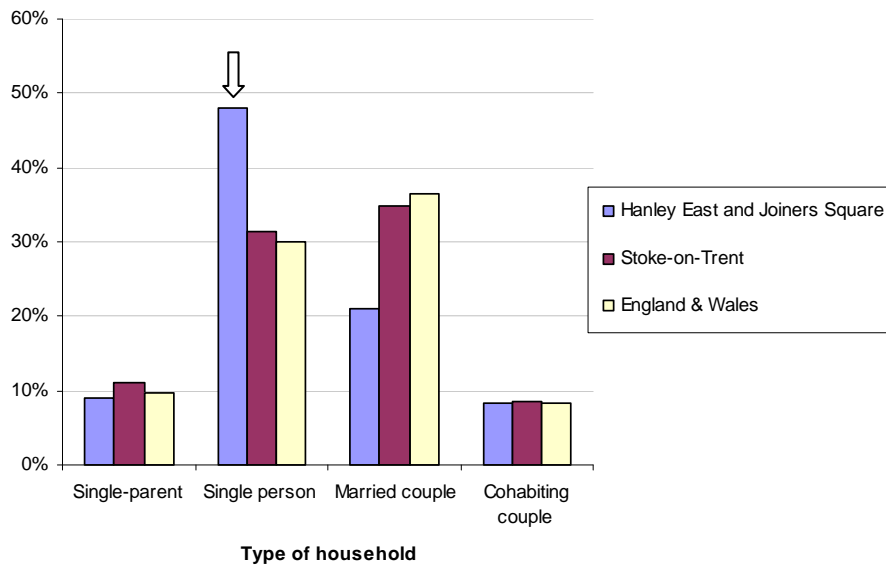
**Figure 6.2 Proportion of Hanley East and Joiners Square residents by marital status compared to Stoke-on-Trent and England and Wales as a whole [Source: ONS]**



6.6.3 Figure 6.3 shows that the proportion of single person households is 48% compared to 32% of Stoke-on-Trent and 30% of England and Wales.



**Figure 6.3 Household composition in Hanley East and Joiners Square compared to Stoke-on-Trent and England as a whole [Source: ONS]**



6.6.4 The proportion of single parent households is lower at 9% compared to 11% of Stoke-on-Trent and 10% of England and Wales.

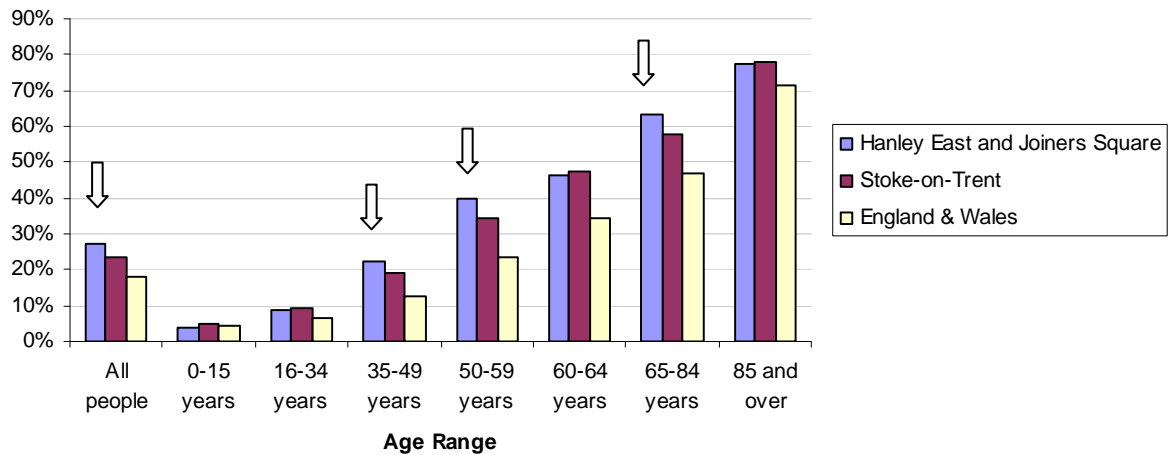
6.6.5 The proportion of married couple households is 21% in Hanley East and Joiners Square compared to 35% of Stoke-on-Trent and 37% of England and Wales.

6.6.6 The proportion of cohabiting couples is 8%, compared to 9% of Stoke-on-Trent, and similar to that of England and Wales.

## 6.7 Health and wellbeing status

6.7.1 27% of all people in Hanley East and Joiners Square are reported to have long term limiting illnesses compared to 23% of Stoke-on-Trent and 18% of England and Wales.

6.7.2 Hanley East and Joiners Square have a proportionally higher incidence of long term limiting illness in those who are 50-59 years and 65-84 years than Stoke-on-Trent and England and Wales as a whole (See Figure 6.4).

**Figure 6.4: Long term limiting illness in Hanley East and Joiners Square [Source: ONS]**

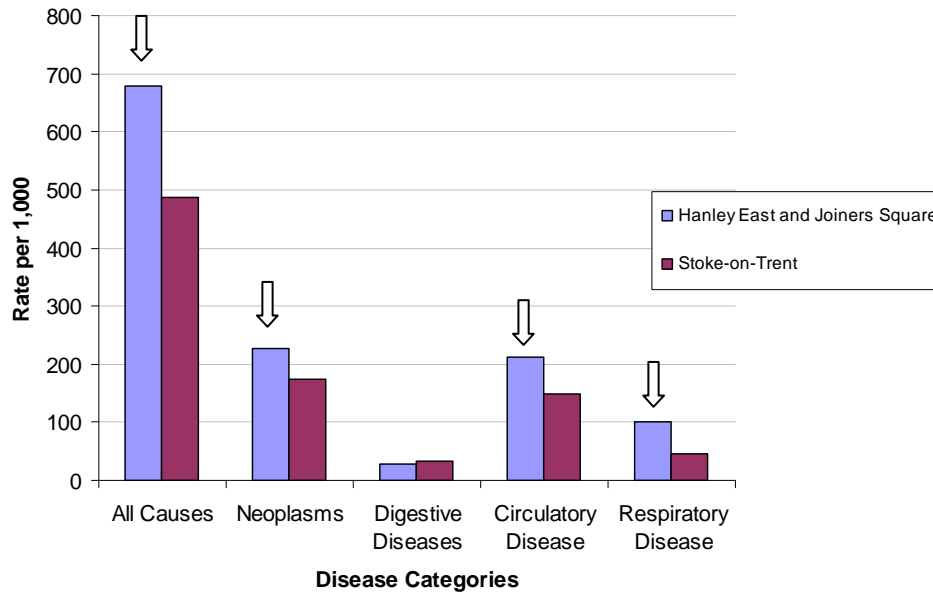
6.7.3 8% of Hanley East and Joiners Square residents provide unpaid care, compared to 11% of Stoke-on-Trent, and 10% of England and Wales.

6.7.4 People aged 50-59 years provide the highest percentage of unpaid care, 14% of Hanley East and Joiners Square, which is much lower than the 23% average in Stoke-on-Trent, and 21% in England and Wales.

6.7.5 The rate of hospital admissions from all causes in Hanley East and Joiners Square per 1,000 of the population, for those below 75 years was 255 compared to 232 for Stoke-on-Trent.

6.7.6 The rate of mortality from all causes in Hanley East and Joiners Square per 100,000 of the population, for those below 75 years was 678 compared to 487 for Stoke-on-Trent. Apart from digestive diseases, Hanley East and Joiners Square has higher rates of mortality for all other major diseases (See Figure 6.5).

**Figure 6.5: Mortality rates for major disease categories in Hanley East and Joiners Square [Source: North Staffordshire Health Intelligence Service]<sup>15</sup>**



## 6.8 Deprivation, social capital and community cohesion

6.8.1 Deprivation refers to problems caused by a general lack of resources and opportunities and not just a lack of money. It is a wider concept than poverty and includes health status, level of education, access to services, living conditions and the state of the local environment.

6.8.2 Overall, CWE is in the most deprived 20% of Lower Super Output Areas (LSOAs) in England.

6.8.3 Figure 6.6 shows Hanley East and Joiners Square compared to the other neighbourhood zones in Stoke-on-Trent.

6.8.4 Figure 6.7 shows that Hanley East and Joiners Square is one of the worst in terms of Housing, Crime, Health, Income, Lifestyle Barriers and Employment deprivation in Stoke-on-Trent.

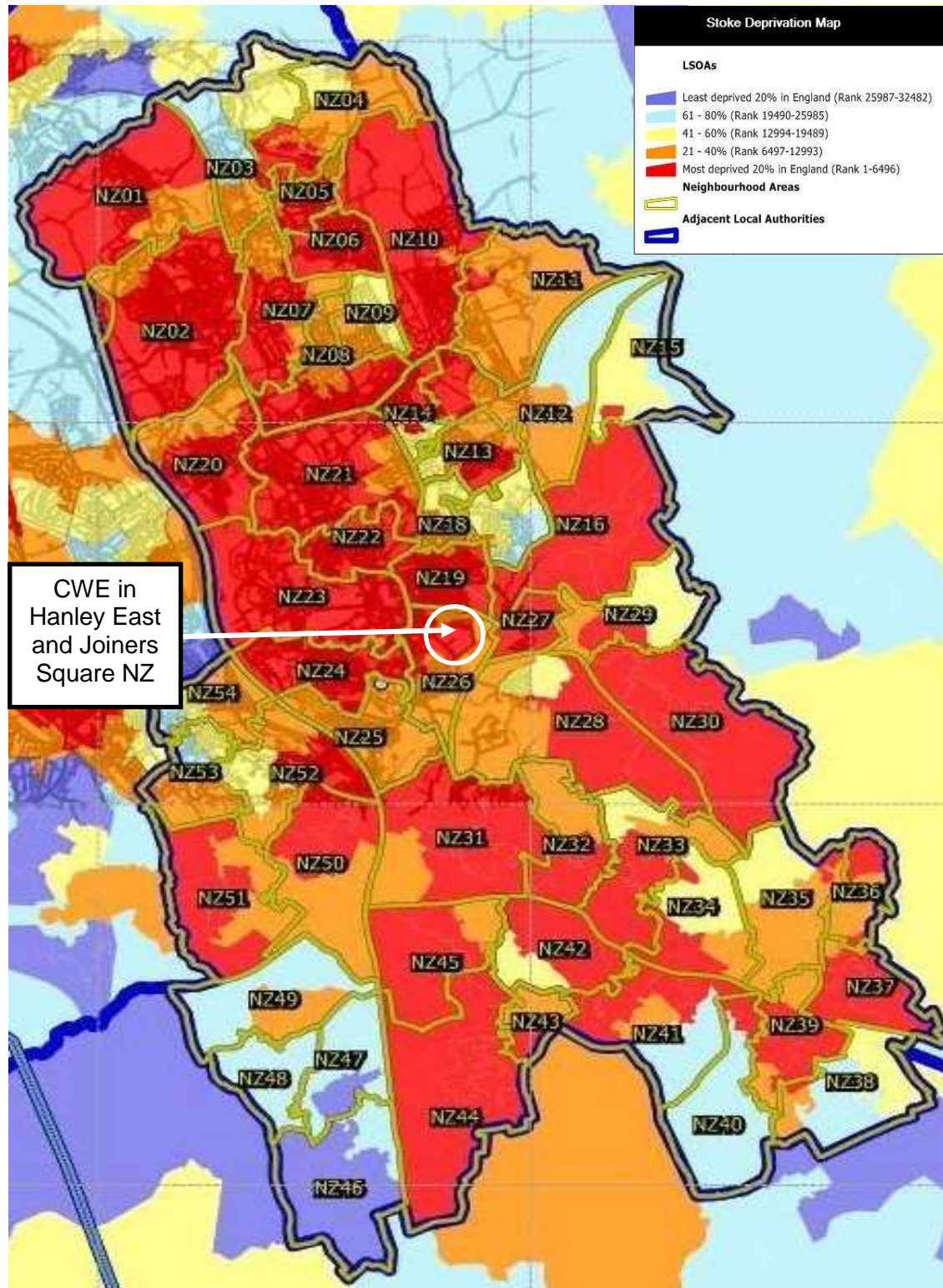
<sup>15</sup>Neoplasms- includes cancers of the digestive organs, respiratory organs, breast cancer, urinary tract and all malignant neoplasms

Digestive Diseases-includes liver disease and disease of the oesophagus, stomach and duodenum

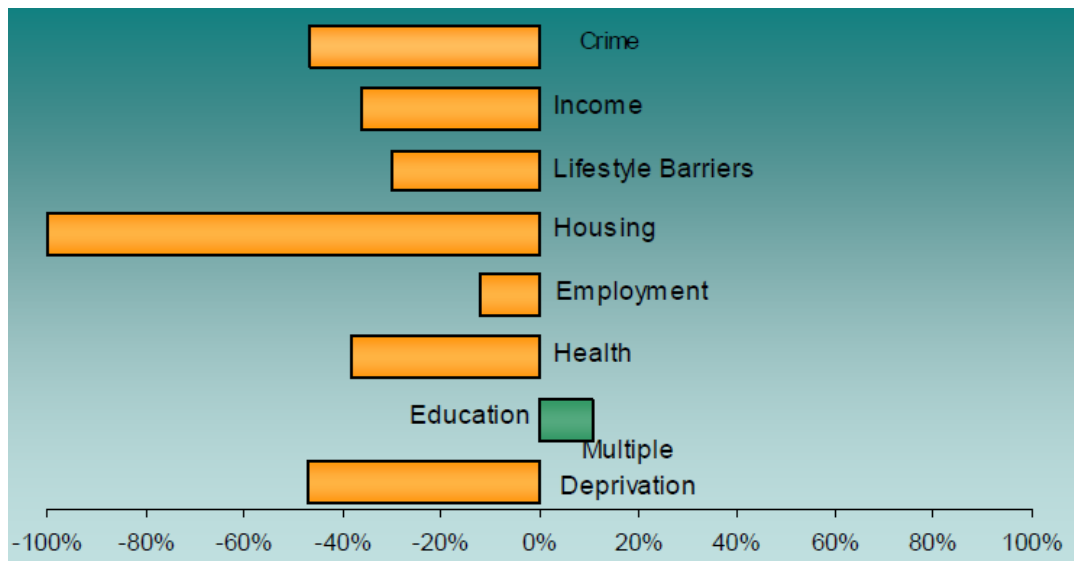
Circulatory Diseases- includes heart disease, cerebrovascular disease and other diseases of the arteries

Respiratory Disease- Includes influenza and pneumonia, lung diseases and other chronic lower respiratory diseases.

Figure 6.6 GIS mapping of deprivation in Stoke-on-Trent by Lower Super Output Areas



**Figure 6.7 Deprivation Ranking of Hanley East and Joiners Square in terms of the 54 Stoke-on-Trent Neighbourhood Zones** (The City average is 0 in each category; 100 represents the least deprived neighbourhood zone and -100 the most deprived)



- 6.8.5 51% of Hanley East and Joiners Square residents feel strongly that they belong to their immediate neighbourhood.
- 6.8.6 68% of Hanley East and Joiners Square residents are satisfied with the area as a place to live.
- 6.8.7 The percentage of Stoke-on-Trent residents who think that people being attacked because of their skin colour, ethnic origin or religion is a big problem in their local area is high at 41%.
- 6.8.8 The percentage of Stoke-on-Trent residents who think that, for their local area, community activities have got better is 76%.
- 6.8.9 Election turnout information can give a good indication of the level of involvement people have in their local areas. The turn out rate at the last European elections was low at 27%.

## 6.9 Housing

- 6.9.1 According to 2008 estimates, 55% of housing in Hanley East and Joiners Square is terraced housing compared to 31% in Stoke-on-Trent. The least common

housing in Hanley East and Joiners Square are detached houses; 2% compared to 14% in Stoke-on-Trent as a whole.

6.9.2 According to 2008 estimates, approximately, 73% of housing tenure in Hanley East and Joiners Square is private compared to 78% in Stoke-on-Trent.<sup>16</sup> 17% is in local authority housing which is a similar proportion to that in Stoke-on-Trent. 10% are Registered Social Landlord (RSL) housing, which is double that in Stoke-on-Trent as a whole.

6.9.3 Housing stock has changed in Hanley East and Joiners Square between 2001 census and 2008 estimates in the following ways:

- Terraced houses have decreased by 10% compared to a 1% decrease in Stoke-on-Trent as a whole.
- Flats/maisonettes have increased by 8% compared to a 1% increase in Stoke-on-Trent as a whole.
- Semi detached houses have increased by 1% compared to a 1% decrease in Stoke-on-Trent as a whole.
- Detached houses have remained the same compared to a 1% increase in Stoke on Trent as a whole.

6.9.4 The average house price in Stoke-on-Trent is £92,500 with terraced houses selling for £65,900, flats selling for £74,000, semi-detached houses selling for £103,900 and detached houses selling for 171,200<sup>17</sup>

## 6.10 Education

6.10.1 The schools attended by most children in Hanley East and Joiners Square are St. Luke's Church of England Primary School, Waterside Primary School and Berryhill High School.

6.10.2 Approximately, 43% of Hanley East and Joiners Square residents have no qualifications, 16% have only Level 1 qualifications, 15% have Level 2 qualifications and 10% have Level 3 and Level 4/5 qualifications.<sup>18</sup> The levels of

<sup>16</sup> Private housing tenure include owner and shared occupation as well as private rental

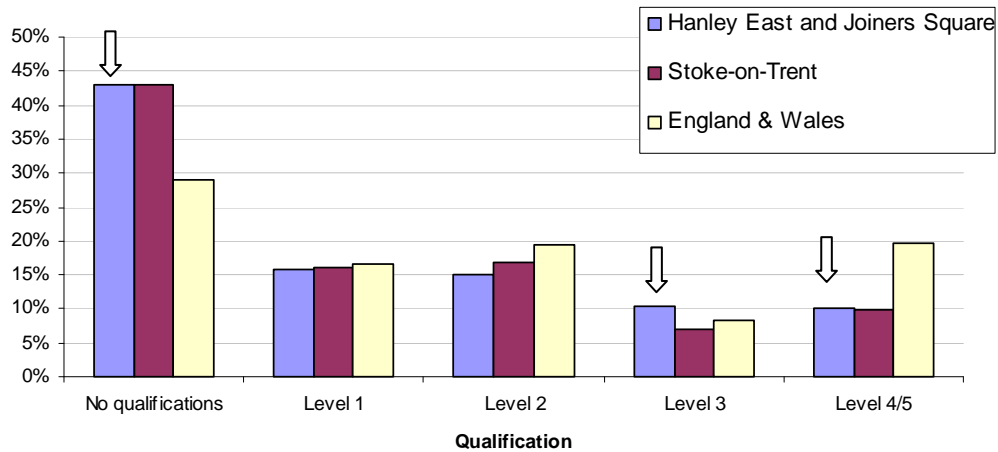
<sup>17</sup> Land Registry of England and Wales. Figures for England and Wales are for the period January to March 2010.

<sup>18</sup> No Qualifications: No academic, vocational or professional qualifications.

Level 1: 1+'O' level passes, 1+CSE/GCSE any grades, NVQ level 1, Foundation GNVQ

education are similar to Stoke-on-Trent but lower than England and Wales (See Figure 6.7).

**Figure 6.7: Proportion of residents in Hanley East and Joiners Square who have qualifications compared to Stoke-on-Trent and England and Wales as a whole [Source: ONS]**



6.10.3 In 2008, 90% of Hanley East and Joiners Square children attained both Key Stage 3 English and Maths. These were an improvement on 2006 figures where the attainments were 67% in both Maths and English.

6.10.4 In 2008, 76% of Hanley East and Joiners Square children achieved 5+ GCSEs grades A\* - C compared to 46% of Stoke-on-Trent children as a whole.

6.10.5 In 2008, 19% of LEA pupils in Hanley East and Joiners Square had Special Education Needs compared to 27% of Stoke-on-Trent, 19% were eligible for free school meals compared to 23% of Stoke-on-Trent and 20.5% had English as a second language compared to 14% of Stoke-on-Trent.

Level 2: 5+'O' level passes, 5+CSEs (grade 1), 5+GCSEs (grades A- C), School Certificate, 1+'A' levels/AS levels, NVQ level 2, Intermediate GNVQ

Level 3: 2+'A' levels, 4+AS levels, Higher School certificate, NVQ level 3, Advanced GNVQ

Level 4/5: First degree, Higher degree, NVQ levels 4 and 5, HNC, HND, Qualified Teacher status, Qualified Medical Doctor, Qualified Dentist, Qualified Nurse, Midwife, Health Visitor

Other qualifications/level unknown: Other qualifications (e.g. City and Guilds, RSA/OCR, BTEC/Edexcel), Other Professional Qualifications.

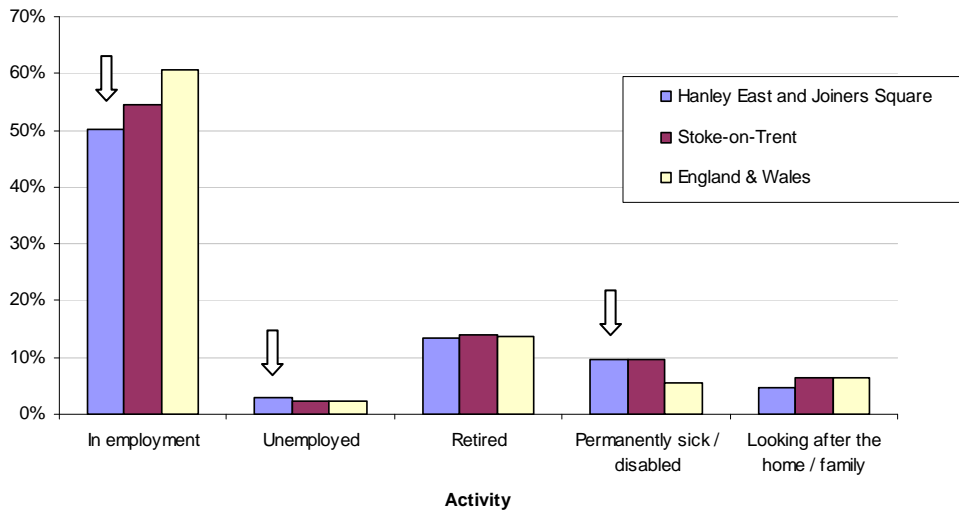
## 6.11 Employment and economy

- 6.11.1 In 2008, 7% of residents in Hanley East and Joiners Square received income support which is similar to Stoke-on-Trent but higher than the 4% in England and Wales as a whole.
- 6.11.2 50% of the residents are in employment compared to 55% of Stoke-on-Trent and 61% of England and Wales (See Figure 6.8).
- 6.11.3 3% of the residents are unemployed compared to 2% of Stoke-on-Trent and 2% of England and Wales.
- 6.11.4 5% look after a home/family compared to 6% of Stoke-on-Trent and 7% of England and Wales.
- 6.11.5 10% are permanently sick or disabled which is similar to Stoke-on-Trent but higher than the 6% in England and Wales.
- 6.11.6 14% are retired, which is similar to Stoke-on-Trent and England and Wales.
- 6.11.7 In terms of occupational groups, 32% are in routine/ semi-routine occupations; 9% are in plant and machine operation; 12% are in managerial/ professional occupations and 5% are corporate managers. There are proportionally fewer residents in managerial and professional corporate jobs than in Stoke-on-Trent and England and Wales.
- 6.11.8 The top three sectors that Hanley East and Joiners Square residents work in are manufacturing (26%); wholesale and retail distribution (22%) and health and social work, education and public administration (17%).
- 6.11.9 Hanley East and Joiners Square has the highest number of residents in social grades D and E compared to Stoke-on-Trent and England and Wales.<sup>19</sup>

---

<sup>19</sup> Social Grade AB: Higher/intermediate managerial and professional workers  
 Social Grade C1: Supervisory- clerical, junior managerial admin and professional workers  
 Social Grade C2: Skilled manual workers  
 Social grade D: Semi/unskilled manual workers  
 Social Grade E: Persons on benefits and lowest grade workers



**Figure 6.8 Employment and unemployment in Hanley East and Joiners Square [Source: ONS]**

## 6.12 Transport and connectivity

6.12.1 The bus network that serves CWE is around the periphery of the masterplan boundary along Bucknall New Road, Botteslow Street and Leek Road with Bucknall New Road being the most frequently used corridor. There are 19 bus routes serving this area.

6.12.2 Almost 51% of residents have no car compared to 35% of Stoke-on-Trent and 27% of England and Wales. 12% of residents have access to two or more cars compared to 20% of Stoke-on-Trent and 30% of England and Wales.

6.12.3 5% of residents work mainly from home compared to 7% of Stoke-on-Trent and 9% of England and Wales.

6.12.4 37% travel less than 2km, 30% travel between 2-5km and 11% travel 10km or more to work.

6.12.5 The majority of Hanley East and Joiners Square residents, 21% travel to work on foot compared to 12% of Stoke-on-Trent and 10% of England and Wales. 59%, travel to work as a passenger or driver in a car compared to 68% of Stoke-on-Trent and 62% of England and Wales. 9% travel to work by bus or coach compared to 10% of Stoke-on-Trent and 8% of England and Wales.

### 6.13 Health and social care

6.13.1 Stoke-on-Trent in general is in the 15% most under doctored areas of England and this means GPs are often dealing with higher patient list sizes than is desirable.

6.13.2 Moorcroft Medical Centre is the nearest health centre to the Hanley East and Joiners Square area and is located on the periphery of the development on Botteslow Street.

6.13.3 Other health facilities in the neighbouring areas include Harley Street Medical Centre, a Breast Screening Clinic, North Staffordshire Combined Health NHS Trust and Shelton Primary Care Centre.

6.13.4 In 2008/2009, Stoke-on-Trent PCT **fully met** 55%, **almost met** 39% and **partly met** 6% of the 44 compliant healthcare standards set out by the Care Quality Commission.

6.13.5 30% of Hanley East and Joiners Square residents consider that health services are improving.

6.13.6 The most recent annual performance assessment for adult social care services rated Stoke-on-Trent council on the following outcomes:

Outcome	Performing
Improved health and wellbeing	Well
Improved quality of life	Adequately
Making a positive contribution	Well
Increased choice and control	Well
Freedom from discrimination and harassment	Well
Economic wellbeing	Well
Maintaining personal dignity and respect	Adequately

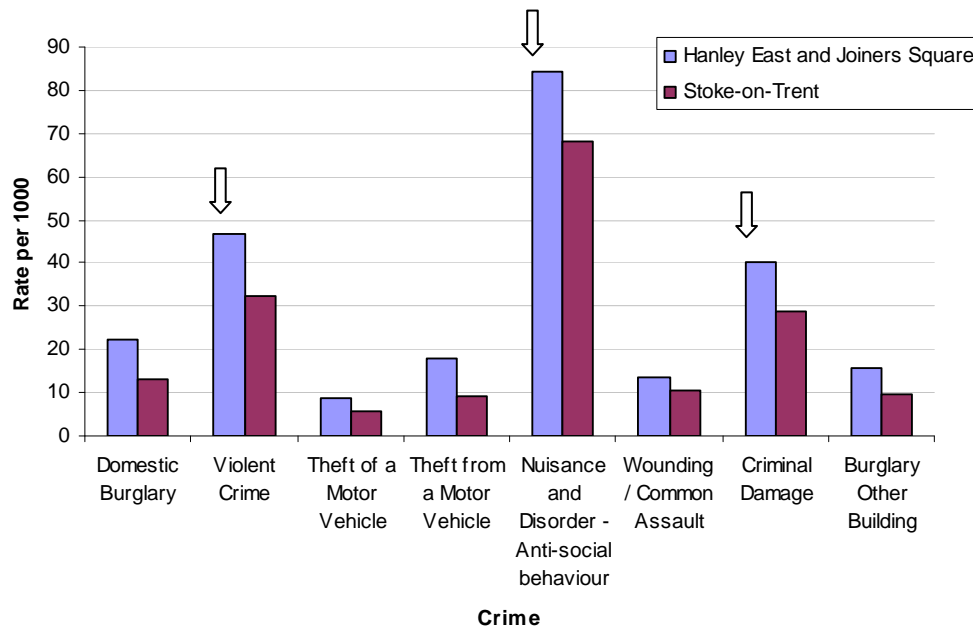
### 6.14 Crime and safety

6.14.1 The top three crime issues in Hanley East and Joiners Square are nuisance/anti-social behaviour, violence crime and criminal damage (See Figure 6.9).

6.14.2 In 2005-2006, the rates of all crimes in Hanley East and Joiners Square were proportionally higher than the rates in Stoke-on-Trent as a whole.

6.14.3 The crime with the highest rate is nuisance and disorder - anti social behaviour - with approximately 84 occurrences per 1000 head of population.

**Figure 6.9: Numbers and rates of crime in Hanley East and Joiners Square [Source: Staffordshire Police, Stoke-on-Trent division]**



6.14.4 The proportion of Stoke-on-Trent residents who feel fairly or very safe outside during the day is almost 98% while almost 68% feel fairly or very safe outside after dark. However 30% of Hanley East and Joiners Square residents think that teenagers hanging around streets are a big problem while 20% think noisy neighbours and loud parties are a big problem.

6.14.5 The proportion of Stoke-on-Trent residents who think that vandalism, graffiti and other deliberate damage to property is a big problem in their local area is 41%. While 27% of Hanley East and Joiners Square residents think that this is a big problem.

6.14.6 The proportion of Stoke-on-Trent residents who think that people using or dealing drugs is a big problem in their local area is high at 76%. While 49% of Hanley East and Joiners Square residents think that this is a big problem.

6.14.7 The proportion of Stoke-on-Trent residents who think that people being rowdy or drunk in public places is a big problem in their local area is high at 57%. While 35% of Hanley East and Joiners Square residents think that this is a big problem.

## 6.15 Shops and retail amenities

6.15.1 The local convenience shopping facilities for the CWE area is provided by local shops on Bucknall New Road and around Wellington Street.

6.15.2 The main retail area, Hanley Town Centre, although outside of the CWE masterplan boundary, is walking distance away.

6.15.3 There are also other types of shopping and retail amenities including the pottery factory shops such as the Emma Bridgewater Factory Shop.

## 6.16 Culture and leisure

6.16.1 There does not appear to be much in the way of culture and leisure activities within the CWE masterplan area however there are a wider range of leisure activities available in the surrounding neighbourhoods that can be accessed by CWE residents. These include:

- Potteries Museum and Art Gallery
- Regent Theatre and Victoria Hall
- Stoke-on-Trent Repertory Theatre
- Park Shelton
- Bucknall Park (has a city farm and sports pitches/courts/area)
- Northwood Stadium
- Shelton Swimming Pools
- City Central Library

6.16.2 42% of the population in Stoke-on-Trent are within 20 minutes travel time (urban-walking; rural-driving) of a range of 3 different sports facility types.

6.16.3 Overall, the proportion of Stoke-on-Trent residents who, in terms of their local area, think:

- that activities for teenagers has got better or stayed the same is 52%.
- that cultural facilities have got better or stayed the same is 93%.
- that facilities for young children have got better or stayed the same is 67%.
- that sports and leisure facilities have got better or stayed the same is 91%.

## 6.17 Land and spatial

- 6.17.1 4.2% of developed land in Stoke-on-Trent is derelict.
- 6.17.2 19% of land and highways in Stoke-on-Trent is assessed as having unacceptable levels of litter and detritus. 45% of Hanley East and Joiners Square residents feel that rubbish and litter lying around is a big problem.
- 6.17.3 94% of rivers in Stoke-on-Trent are assessed as having poor biological quality and 82% as having poor chemical quality.
- 6.17.4 24% of household waste in Stoke-on-Trent is sent to landfill with only 15% of household waste being recycled. Household waste composted is low 5% however the level of household waste used to recover heat and power is high 56% (compared to the national average).
- 6.17.5 Of the approximately 34 hectares of land in Stoke-on-Trent designated as a Site of Special Scientific Interest (SSSI), 16% is found to be in an unfavourable condition.
- 6.17.6 The percentage of Stoke-on-Trent residents who think that parks and open spaces in their local area have got better or stayed the same is just under 73%.

## 6.18 Summary of community profile

- 6.18.1 Hanley East and Joiners Square has a young population with a **greater proportion of residents aged 16-44 years and 60 years and over**.
- 6.18.2 The ethnic profile of Hanley East and Joiners Square is mainly **White British** with a significant minority of residents from a **Pakistani** background.
- 6.18.3 Hanley East and Joiners Square has a **higher proportion of single people and single person households** compared to Stoke-on-Trent as a whole.
- 6.18.4 **A greater proportion of residents have a limiting long term illness particularly those aged 35-59 years**, than Stoke-on-Trent and national averages. The provision of unpaid care is similar to, and in some cases lower than, national averages therefore it is likely that some residents with long term illnesses don't have family support and are reliant on themselves and support from social care services.

- 6.18.5 Hanley East and Joiners Square is one of the **most deprived areas in Stoke-on-Trent.**
- 6.18.6 The majority of accommodation in Hanley East and Joiners Square is **terraced housing. The majority of residents live in privately owned/rented housing** with the remainder renting from Stoke-on-Trent Borough Council or local housing associations.
- 6.18.7 The **educational attainment of children** in Hanley East and Joiners Square is **higher than in Stoke-on-Trent as a whole.**
- 6.18.8 **Unemployment is higher** than for Stoke-on-Trent and England and Wales.
- 6.18.9 Residents are generally working in **less skilled/non-professional jobs** and the **manufacturing sector.**
- 6.18.10 The rates of crime particularly **nuisance and disorder, criminal damage, violence, burglary and theft from motor vehicles** are well above the Stoke-on-Trent average.
- 6.18.11 A range of shops and retail amenities are easily accessible and there are a range of culture and leisure facilities.
- 6.18.12 **Rubbish and litter on streets and noisy neighbours are significant concerns.**

# 7 Evidence on the Health Impacts of Housing Led Regeneration Schemes

## 7.1 Introduction

7.1.1 This chapter provides a summary of the key evidence on the health impacts of housing led regeneration schemes.

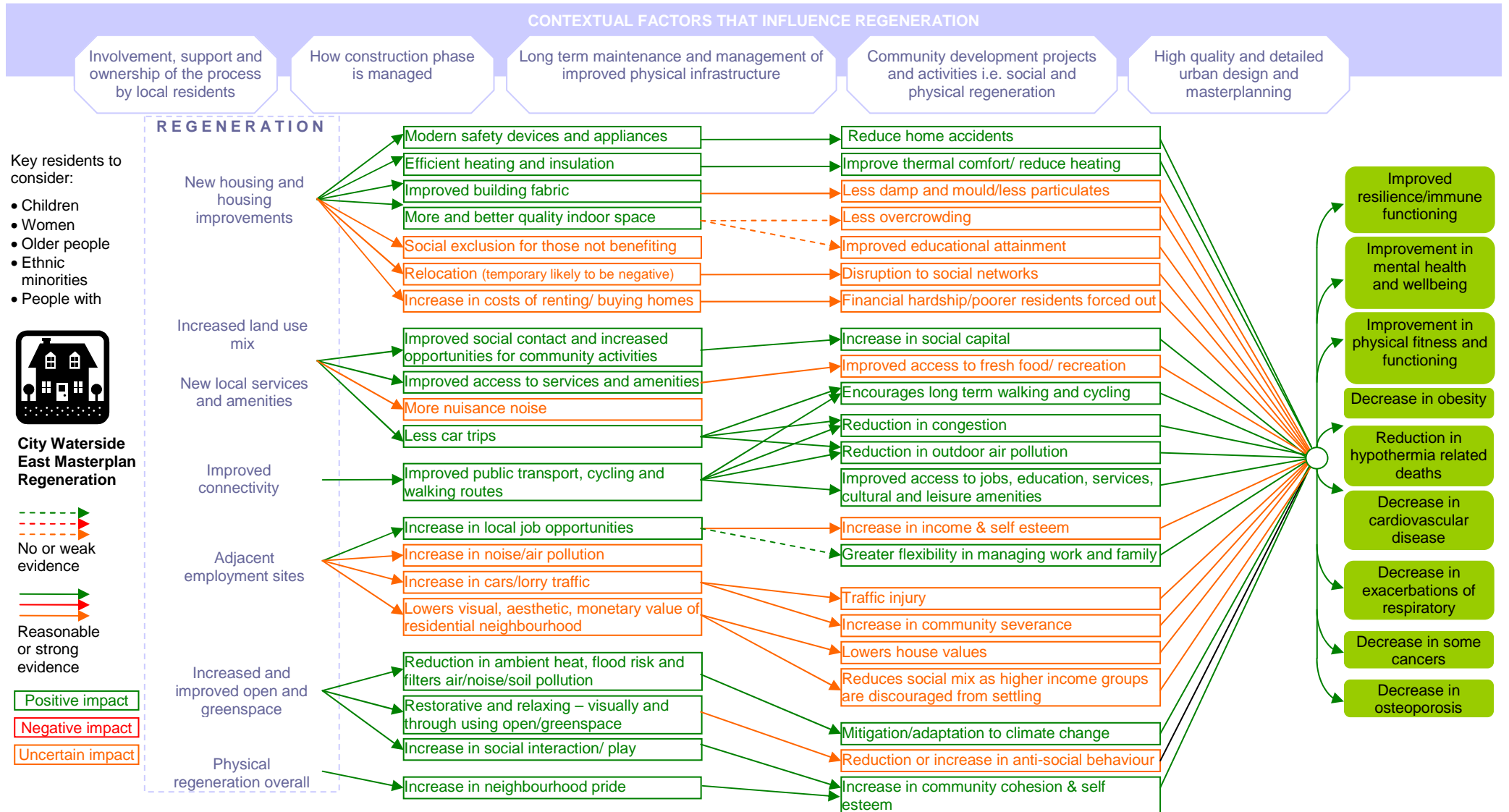
7.1.2 A causal pathway diagram as shown in Figure 7.1 has been developed showing the likely pathways through which a housing led regeneration scheme could impact on health and wellbeing.

7.1.3 The aim of this rapid review of the literature was to identify and assess the significance of the key pathways of health impact for each of the six themes below which apply to the City Waterside East Masterplan Options.

7.1.4 The key themes of the City Waterside East regeneration scheme are:

- Housing (New housing and housing improvements)
- Land use mix
- Services
- Connectivity
- Employment sites
- Greenspace
- Climate change

Figure 7.1 Causal pathway diagram for the potential health impacts of the City Waterside East Regeneration Masterplan





## 7.2 New Housing and Housing Improvements

- 7.2.1 The health impacts of new housing and housing improvements are similar except in the case of housing improvements, the need to temporarily or permanently re-locate residents.
- 7.2.2 The number of people living in Decent Homes has been recognised as being not just of benefit to the occupiers but also to the wider community and to society.<sup>20</sup>
- 7.2.3 However, housing relocation is considered to be a stressful event and it has been linked to the loss of community cohesion and the disruption of social networks.<sup>21</sup>
- 7.2.4 Improvements in physical housing conditions particularly in relation to central heating systems and improved insulation usually improves thermal comfort and reduces heating bills.<sup>22</sup>
- 7.2.5 There is a well established link between improved housing design and a reduction in home accidents through better location of appliances and the installation of safety devices such as smoke alarms and child safe windows.<sup>22</sup>
- 7.2.6 Housing costs and/or rents can increase with new and improved housing. This can affect people on low income when the added financial strain which in turn can affect diet, recreational activities and buying clothes/materials for home/school/work.<sup>23</sup> In addition it can lead to gentrification of an area where poorer people are forced out as higher income groups move in.
- 7.2.7 Poor indoor air quality from short term increases in indoor particulates produced from environmental tobacco smoke, cooking gases and certain heating appliances are associated with increased mortality and morbidity and acute cardio-pulmonary diseases particularly in vulnerable groups such as the elderly or people with asthma.<sup>24</sup>

<sup>20</sup> Chartered Institute of Environmental Health. Good housing leads to good health: a toolkit for environmental health practitioners. September 2008

<sup>21</sup> Teresa Lavin et al Institute of Public Health in Ireland. Health Impacts of the Built Environment a review. July 2006

<sup>22</sup> Thomson H, Petticrew M, Morrison D. Housing Improvement and Health Gain: A summary and systematic review. MRC Social and Public Health Unit. January 2002

<sup>23</sup> Moloughney B. Housing and Population Health: The State of Current Research Knowledge. Department of Public Health. University of Toronto. June 2004

<sup>24</sup> WHO. Guidelines for Air Quality. December 1997

- 7.2.8 Dampness is associated with encouraging the growth of mites and moulds which can act as allergens and immuno-suppressors that can lead to sneezing, coughing and exacerbation of asthma. People living in damp homes have been known to suffer from persistent respiratory symptoms e.g. sneezing, runny nose, coughing which reduces general health and wellbeing.<sup>25</sup> In old homes this can be as a result of poor damp proofing and too little ventilation. In new housing it can be a result of too little ventilation.
- 7.2.9 Children can be particularly affected by living in overcrowded housing. The effects of overcrowding can include increased irritability and aggression. In children it can also lead to poor educational attainments and poor mental health due to the lack of play space and privacy.<sup>22</sup>
- 7.2.10 There is also the possibility of increased social exclusion and divisions between existing and new residents when existing residents in or near a regeneration area see no improvements to their own homes or neighbourhoods.<sup>26</sup>

### 7.3 Land use mix

- 7.3.1 Land use mix refers to how residential, commercial, public and recreational land uses are spatially located with each other. This mix can either be vertical within a single, large multi-storey development or horizontally across several different developments.
- 7.3.2 It has been shown that the same amount of land used for multiple amenities produces fewer trips than when it is divided into separate pockets located some distance from each other. The benefits are through enabling people to walk to nearby amenities and socialise when they would otherwise drive to the amenities. A modelling exercise carried out by the Institute of Transport Engineers suggested that a 100,000 sq ft office development when split into 25,000 sq ft of office space, 25,000 sq ft of research and development space, 40,000 sq ft of family apartments

---

<sup>25</sup> Page A. Journal of Environmental Health Research Volume 1, Issue 1; Poor housing and mental health in the United Kingdom: Changing the focus for Intervention, 2002

<sup>26</sup> Douglas M, Thomson H, Gaughan M. Health Impact Assessment of Housing Improvements: A Guide, Public Health Institute of Scotland, Glasgow, 2003.

and 10,000 sq ft of retail, would see rates of daily vehicle trips fall by almost 20%.<sup>27</sup>

7.3.3 Mixed land use generally results in reduced car trips, reduced traffic congestion, reduced air pollution, greater physical activity and greater social interaction.<sup>29</sup>

7.3.4 However on the negative side though there is reduced vehicle use, land use mix because they create higher density neighbourhoods can lead to greater overall levels of local air pollution because of the increased number of cars and other vehicles in the area.<sup>29</sup>

7.3.5 In mixed land use settings, as the density increases per person hours and miles of car travel tend to decline and walking, cycling and the public transport use tends to increase.<sup>29</sup>

## 7.4 Access and availability of services

7.4.1 Amenities and services have been identified as channels for creating and maintaining social networks and interactions through the promotion and facilitation of informal meetings and social cohesion. This in turn can help relieve stress and enhance mental health and wellbeing.<sup>28</sup>

7.4.2 Research shows that wellbeing in older age is a function of personal choice and determination hence the quality of life, especially for older people, is partly dependent on the availability and accessibility of opportunities for social interaction/community participation. The same factors also influence children's wellbeing.<sup>24</sup>

7.4.3 Providing a cluster of local services and amenities increases the opportunity for multi-use trips, social interactions, active travel and physical activity.<sup>29</sup>

<sup>27</sup>Lawrence D Frank, Mr. Peter Engelke; How Land Use and Transportation Systems Impact Public Health: A Literature Review of the Relationship between Physical Activity and Built Form

<sup>28</sup> Thomson H, Kearns A, Petticrew M. Assessing the health impact of local amenities: a qualitative study of contrasting experiences of local swimming pool and leisure provision in two areas of Glasgow *J Epidemiol Community Health* 2003;57:663-667

<sup>29</sup> H. Barton, and C. Tsourou. *Healthy Urban Planning*. 2000. World Health Organisation. Spon Press. pp 132-135

## 7.5 Transport and Connectivity

- 7.5.1 There is evidence that the availability of public transport makes it possible for people to access jobs further away.<sup>30</sup>
- 7.5.2 Provision of subsidised, frequent and reliable public transport, and improved road connectivity, provides improved access to a range of opportunities and services such as education, recreational activities and health and social care services. These in turn can improve individual quality of life and reduce social isolation.<sup>31</sup>
- 7.5.3 However, improved connectivity can bring with it increased risks of injuries and casualties particularly for cyclists and pedestrians especially when major roads are close to houses and schools.<sup>25</sup> Though overall studies have shown that the provision of cycle and footpaths reduces cycle and pedestrian casualties and can lead to long term increase in levels of cycling and walking and thus an increase physical fitness and functions.<sup>32</sup>
- 7.5.4 Inaccessible and unreliable public transport tends to be found in deprived areas leading to greater social and health inequality. Those who benefit most from improved public transport and connectivity are women, children and disabled people, people from minority ethnic groups, older people and people on low incomes.<sup>33</sup>
- 7.5.5 In the UK, children in the poorest families are 4 times more likely to die in road accidents than those in the richest social class. It has also been clearly identified that the risk to child pedestrians is related to the number of roads they have to cross.<sup>28</sup>
- 7.5.6 Major roads running through housing communities can result in severance. Severance is the physical presence of traffic, as well as the perceived risks of accidents, which creates a barrier to social interaction and community cohesion particularly for children and older people. There is evidence which indicates that increased social contact can result in lower overall death rates.<sup>26</sup>

---

<sup>30</sup> Kjellstrom T, and Hill S. New Zealand evidence for health impacts of transport: background paper prepared for the Public Health Advisory Committee, December 2002

<sup>31</sup> On the move | Informing transport health impact assessment in London October 2000

<sup>32</sup> Physical activity and the environment; Review One: TRANSPORT NICE Public Health Collaborating Centre – Physical activity 5 Sep 2006

<sup>33</sup> Cave B, Cooke A, Benson K. Urban Renaissance Lewisham health and social impact assessment; March 2004

7.5.7 A number of studies point to the negative health impacts of noise levels associated with transport. Key noise effects include annoyance, sleep disturbance and in children lower educational performance.<sup>23 26</sup>

7.5.8 Increased connectivity can also lead to congestion. Congestion causes motor vehicles to travel at low speeds which increase local levels of exhaust emissions.

7.5.9 The adverse health effects of air pollution from vehicles have been well documented and include small but measurable increases in:<sup>34</sup>

- Premature deaths from cardio-respiratory disease
- Exacerbation of existing respiratory illnesses
- Increase in respiratory symptoms e.g. coughing, shortness of breath

## **7.6 Proximity of employment sites to residential areas**

7.6.1 There are many studies and research that document the likely health impacts of heavy industrial sites near housing e.g. mining, chemical and waste sectors.

7.6.2 However there is very little research on the health impact of light industrial sites such as potteries/manufacturing/offices near residential areas.

7.6.3 The potential health impacts described below have therefore been drawn from basic themes that emerge from research that applies to industrial and commercial sites in general.

7.6.4 Proximity of employment sites to housing, provided that local residents take up employment in the sites is likely to enhance the local economy and wellbeing of local residents.

7.6.5 In addition, local employment enables people to manage their jobs and families with greater flexibility and hence reduces the likelihood of family conflicts and work stress linked to commuting.

7.6.6 The travel distance to work when employment sites are close to residential areas is shorter. This alongside increased connectivity can encourage more walking and cycling.

---

<sup>34</sup> World Health Organization. 2005. Health effects of transport related air pollution

- 7.6.7 On the negative side, employment sites and residential mix can negatively impact on communities through noise and air pollution. Both types of pollution can be brought about through increase in road traffic, transporting people and goods to and from the sites.
- 7.6.8 As described previously, air pollution has been documented to increase the risk of various respiratory conditions whilst noise pollution is likely to cause general annoyance, sleep disturbance and difficulty in concentrating.
- 7.6.9 The visual appearance of employment sites may also be off-putting to people from higher socio-economic groups. This might discourage the influx of a mix of new residents and lead to higher outflow from the area of current higher socio-economic group residents.
- 7.6.10 Regeneration developments usually see increase in house prices however, where there are industrial employment sites in close proximity to residential areas, this may result in a lower increase in house prices due to the perceived lower visual amenity.

## 7.7 Greenspace

- 7.7.1 Direct and indirect contact with nature e.g. gardens and parks have a restorative effect that improves wellbeing.<sup>35 36 40</sup>
- 7.7.2 It has been suggested that the likelihood of being physically active can be up to three times higher in residential environments that contain high levels of greenery and the likelihood of being overweight or obese can be up to 40% less.<sup>37</sup>
- 7.7.3 A variety of landscape features and its attractiveness encourages higher levels of walking.<sup>38</sup>
- 7.7.4 Apart from encouraging higher levels of walking other reported impacts of attractive and well maintained greenspaces include reducing stress and mental fatigue; pleasurable sensory experiences and increased social interactions.<sup>32 41 43</sup>

---

<sup>35</sup> Hartig T, Mang M, Evans G. Restorative Effects of Natural Environmental Experiences, *Environment and Behaviour*; 1991 23: 3-26

<sup>36</sup> Murphy L, Mental Capital and Wellbeing: Making the most of ourselves in the 21<sup>st</sup> century, National Institute for Occupational Safety and Health

7.7.5 There is also evidence of the ability of greenspace to provide direct protection from environmental exposures, for example providing shade from hot weather conditions, improving air quality through their uptake of particles and to reduce the risk of flooding by reducing surface water runoff especially in flood prone areas.<sup>39</sup>

## 7.8 Climate Change<sup>40 41</sup>

7.8.1 Increasing levels of carbon dioxide and other greenhouse gases is likely to produce significant long term changes to local, regional and global weather patterns. In the context of the UK these are likely to be:

- Warmer summer (with the strong potential for heatwaves)
- Milder wetter winters
- Floods and droughts
- Extreme weather events e.g. thunderstorms and hurricanes

7.8.2 All of the above are likely to affect health and wellbeing directly.

7.8.3 In temperate countries, deaths rates during the winter season have tended to be higher than those in the summer however this may/is likely to change with more deaths related to heat stroke.

7.8.4 Changes in air quality from air pollutants and intense pollen seasons associated with climate change may exacerbate existing cardio-respiratory diseases.

7.8.5 Increased incidence of floods and droughts is likely to affect agricultural land use which will affect the quality and availability of affordable food production. This has an indirect impact on levels of nutrition or malnutrition.

<sup>37</sup> Ellaway A, Macintyre S, Xavier B. Graffiti, greenery, and obesity in adults: secondary analysis of European crosses sectional survey. *BMJ* 2005; 331:611-612.

<sup>38</sup> Greenspace Scotland :The links between greenspace and health: a critical literature review, October 2007

<sup>39</sup> Forestry Commission. Determining the benefits of woodland on air quality:

<http://www.forestry.gov.uk/website/forestresearch.nsf/ByUnique/INFD-62DFHK>

<sup>40</sup> WHO. Climate change and human health. [http://www.searo.who.int/en/Section260/Section2468\\_14932.htm](http://www.searo.who.int/en/Section260/Section2468_14932.htm)

<sup>41</sup> Health Protection Agency. Health effects of climate change in the UK 2008. 2008.

- 7.8.6 Issues surrounding water shortage and quality are likely to intensify in situations where there is drought or reduced rainfall. This is likely to have an impact on sanitation and transmission of water borne diseases.
- 7.8.7 There is an indirect link between climate change and disease transmission as increasing temperatures may provide opportunities for disease vectors, such as mosquitoes and malaria, to increase replication rates and change their infection and survival patterns.
- 7.8.8 This means that the kinds of homes and neighbourhoods in the UK will need to reflect the potential changes that climate change is likely to bring.

## 7.9 Conclusion

- 7.9.1 Judging from the evidence gathered, regeneration as a whole is generally beneficial to new and existing residents and overall has positive impacts on health and wellbeing. However, the implementation of a regeneration programme is important in ensuring that potential negatives are minimised and positives maximised.
- 7.9.2 The seven themes described above should be simultaneously implemented in order to produce the maximum benefits from a regeneration programme.
- 7.9.3 In order for any housing-led regeneration to be successful, both physical infrastructure and community development should be considered concurrently as new developments cannot by themselves create 'communities' but they can encourage or discourage the formation of social cohesion and capital.<sup>42</sup>
- 7.9.4 Regeneration also needs to take into account ongoing adaptation to climate change.

---

<sup>42</sup> Cave, B., Molyneux, P., and Coutts, A. *Healthy sustainable communities: What works?* 2004. Chapter 3. Milton Keynes & South Midlands Health & Social Care Group.



## 8 City Waterside East Masterplan Design Options 'Health Proofing' Review Findings

### 8.1 Introduction

8.1.1 This chapter describes the City Waterside East (CWE) Draft Four Masterplan Options health proofing review that was undertaken by Centre for Health Impact Assessment, IOM as well as feedback from a consultation with a range of other stakeholders who had knowledge of the City Waterside East area.

8.1.2 There were three main objectives of this review:

- To 'health proof' the emerging Masterplan Option Designs for CWE.
- To incorporate public health themes, based on the World Health Organisation (WHO) healthy urban planning principles into the vision and objectives of the regeneration scheme and the Final Preferred Masterplan Option Design.
- To raise awareness amongst other stakeholders of the CWE Masterplanning Process and the Design Options.

8.1.3 The systematic 'health proofing' of masterplans is a relatively new approach that was part of the learning outcomes for the project as a whole. This learning was used to inform the development of a guide for future assessments of masterplans so that this approach could be embedded into the planning processes of Stoke-on-Trent and North Staffordshire more generally.

8.1.4 In contrast to the workshop approach used in the Middleport HIA, for City Waterside East independent reviews from a range of stakeholders were collated highlighting an alternative methodology that can be used when there is limited time to organise a workshop to review masterplans.

## 8.2 Healthy Urban Planning Principles used to Guide the Analysis of Potential Health Impacts

8.2.1 The Four Draft Masterplan Options were reviewed against the 12 WHO healthy urban planning principles. These are:

	Theme	Principle	Example
1.	<b>Healthy Lifestyles</b>	Do planning policies and proposals encourage and promote healthy exercise/physical activity?	Appropriate density housing, nearby amenities, safe and walkable/cyclable neighbourhoods for children and adults
2.	<b>Social cohesion</b>	Do planning policies and proposals encourage and promote social cohesion i.e. integration between communities and active engagement of communities in neighbourhood activities?	Low to medium levels of traffic through home zones and traffic calming measures, safe crossing points, wide pavements/footpaths, well lit and looked after public spaces, human scale business/industrial developments
3.	<b>Housing quality</b>	Do planning policies and proposals encourage and promote housing quality	High quality design, high quality building materials, appropriate levels of internal room spacing, appropriate location/orientation e.g. to maximise natural light, mixed density developments, mixed tenure, mixed demography dwellings (single people, couples, families, older people)
4.	<b>Access to employment and education opportunities</b>	Do planning policies and proposals encourage and promote access to employment and education opportunities?	Range of accessible and well connected business/industrial premises and educational institutions.
5.	<b>Accessibility</b>	Do planning policies and proposals encourage and promote accessibility	Reliable and frequent public transport, accessible and available health/social care/other public services, availability and accessibility of commercial services e.g. banks, local shops, supermarket hairdresser, drycleaner, pharmacist, etc.
6.	<b>Local low-input food production</b>	Do planning policies and proposals encourage and promote local food production with low input of chemical fertiliser and pesticides?	Protection of high value agricultural land and allotments, support for composting, community gardening and growing vegetable patches in private gardens
7.	<b>Safety</b>	Do planning policies and proposals encourage and promote safety and feeling of	Residential and commercial design that incorporates passive surveillance through overlooking windows and encouragement of

Theme	Principle	Example
	safety in the community?	passing foot, cycle and public transport traffic, removal of graffiti, maintenance and cleaning of green and built open spaces, repair of vandalised street furniture, creating community spaces where adults and children of all ages can meet and chat.
8.	<b>Equity</b> Do planning policies and proposals encourage and promote equity and the development of social capital?	Targeting deprives and environmentally poor areas for physical regeneration, ensuring high quality housing and business developments in these areas, improving street lighting, public transport and pedestrian connectivity in these areas, building in home zones and traffic calming measures.
9.	<b>Air quality and aesthetics</b> Do planning policies and proposals encourage and promote good air quality, protection from excessive noise and an attractive environment for living and working?	Regulate and reduce air emissions and noise from motor vehicles, domestic sources and businesses. Use noise barriers and trees and shrubs as sinks for barriers to air pollution exposures
10.	<b>Water and sanitation quality</b> Do planning policies and proposals encourage and promote improved water and sanitation quality?	Mains connection to drinking water and sewage systems, appropriate systems where mains connection are not feasible, reduce water usage in taps and appliances, incorporation of Surface water Urban Drainage Schemes (SUDS)
11.	<b>Quality of land and mineral resources</b> Do planning policies and proposals encourage and promote the conservation and quality of land and mineral resources?	Protection, maintenance and enhancement of high quality agricultural land, green and blue spaces, high quality remediation of contaminated land, appropriate development of mines and mineral refining facilities away from human settlements as much as possible, minimise use of non renewable mineral resources and land uses and practices that can degrade soil quality.
12.	<b>Climate Stability</b> Do planning policies and proposals encourage and promote climate stability  (and reduce the potential impact of climate change)	Design of energy efficient and well insulated homes that can cope with varying temperatures and rainfall to provide appropriate levels of thermal comfort for residents, use of sustainable building materials, use of energy efficient appliances, recycling of building waste, recycling and appropriate treatment of other waste, use of renewable energy sources and protection, maintenance and enhancement of urban and rural biodiversity.

8.2.2 In addition to the WHO healthy urban planning principles, the supplementary consultation reviewed the draft masterplan options against seven key masterplan features namely:

- Community Centre
- New Public Open Spaces
- Canal Side
- School drop-off/pick-up
- Leek Road Frontage
- East-West Access across the neighbourhood
- North-South Access across the neighbourhood

8.2.3 For a more detailed description of the masterplan options review, a separate document 'City Waterside East Masterplan Options Appraisal' is available as a case study of the use of the 'Health proofing' approach.

### **8.3 Analysis of the Four Masterplan Options**

8.3.1 The four masterplan options were analysed using rapid and in-depth review tables.

8.3.2 Tables 8.1 to 8.4 provide a summary of some of the positive and negative elements for each of the masterplan options reviewed.

**Table 8.1: Potential health and wellbeing impacts from Masterplan Option 1**

Positive (+) health impacts	Negative (-) health impacts
Public open and greenspaces pocketed in different parts of development which means more people have good access to one or more open space	
Balfour Street will be widened and tree lined and is likely to encourage people to walk/cycle.	
The increased connectivity by foot/cycle to Bucknall New Road is likely to encourage active travel.	
The increased public open space and accessibility to the canal is likely to increase outdoor physical and social activity.	The canal acts as a barrier north and south. However there are three crossing points, one centrally and one each where the canal intersect the major roads west and east of the development area.
Location of the community centre near public realm/square and public open space will encourage diversity in activities because of the option to use the outdoors.	Community centre at the far top near Bucknall New Road may be, or perceived to be less accessible for people living on the southern side of the development area because of the need to cross the canal.

**Table 8.2: Potential health and wellbeing impacts from Masterplan Option 2**

Positive (+) health impacts	Negative (-) health impacts
New commercial spaces pepper potted across the north side of the development providing good accessibility to residents in the northern end of the development and greater retail opportunities.	
	Alternative community centre B is outside the boundaries of the development and thus might not encourage residents to actively use the centre.
The widening of Balfour Road and connection to Bucknall New Road may reduce traffic on Wellington Road, where St Luke's School is located.	Employment site near St Luke's School could be a potential negative because of traffic, noise and depending on the business potential for emissions into the air.
Generally connectivity is enhanced north-south and west-east in a way that preserves natural surveillance because of the large amount of housing. Open and green spaces as well as commercial spaces are overlooked by housing.	

**Table 8.3: Potential health and wellbeing impacts from Masterplan Option 3**

Positive (+) health impacts	Negative (-) health impacts
Wellington Road will be widened and tree lined and is likely to encourage people to walk/cycle.	
	No commercial spaces to the south of the development area
	No greenspace on the southern side of the development area.
	There is no connected open public space across the canal
Public realm/square by the canal and by the community centre is easily accessible from all parts of the community and this will encourage more frequent use of the space for socialising.	
Provision of new central crossing point across the canal and footpath/cycleway along the canal.	No canal basin or 'arms' therefore a more restricted use of the canal

**Table 8.4: Potential health and wellbeing impacts from Masterplan Option 4**

Positive (+) health impacts	Negative (-) health impacts
	Community centre may be, or perceived to be less accessible by many residents especially those on the southern side given its location at the far north of the development area.
The increased public open space and accessibility to the canal is likely to increase outdoor physical and social activity.	
	There is less connected open public space across the canal
The open and green spaces are small enough for there to be visibility from all sides – inside and outside.	
Open, green, blue spaces integrated with housing hence there is provision for natural surveillance	

## 8.4 Recommendations

8.4.1 The recommendations that were developed for input into the Final Preferred Masterplan Design Option were

### 8.4.2 Healthy Option

The best option from a public health perspective is Option 1: Community Heart.

The value of developing a 'community street' that ran down the middle of the area with strong links being developed through the clustering of the community centre, greenspace, the school and a boulevard of shops and local services.

### 8.4.3 Greenspace

Maximising the amount of greenspace in the development area and ensuring that it is multi-functional e.g. allowing a variety of outdoor activities such as children's play area, informal sports pitches, footpaths as well as picnic spots and seating.

Retain the entire Meakin's open space as it is important as an integral part of City Waterside East's heritage given that Sir Stanley Matthews learnt to play football there. In addition, it was also noted that residents around Meakin's Space are receptive when called upon, have a good residents association and the space has no anti-social behavioural problems or late night drinking.

Though there was support for greenspace near the school it also raised concerns because of the fact that it could encourage an extension of the drug-dealing and anti-social behaviour that already takes place on the other side of Bucknall New Road.

Landscaping and greening should be appropriately designed and laid out so that they do not obscure sightlines along key paths.

Ensure as much greening of roads within the development area especially where there is retained and refurbished housing.

### 8.4.4 Community centre/facilities

The community centre should be designed for multipurpose use with adequate space and provide a range of different activities and services to cater for all age

ranges (community hall, information drop in centre/running of various health clinics, toddler groups etc).

In the professional stakeholder consultation, the majority of participants were keen on having the community centre at the top of the plan next to the school reasoning that links could be established between the community centre and the school. Whilst this is a good idea, the disadvantage of such an arrangement would be that it limits access of the community centre to other groups, e.g. older people, unemployed young people. The school should have extra curricular facilities on site to serve local children hence to maximise the potential benefits to the entire community as well as address equality issues, the community centre should aim to extend its use to other resident groups such as older people, young adults and local minority groups

Ensuring that residents from across the estate could access the community centre from all directions was also seen to be important hence Option 1 and 2 were considered good options for locating the community centre.

#### 8.4.5 Commercial spaces

Commercial spaces should promote retailers that provide good quality, fresh everyday groceries and products because the city centre is not too far away and this can cater for more non essential needs.

Encourage a mix of different commercial uses (shops, offices, light industrial, entertainment/leisure venues etc). However the proximity of Hanley Town Centre should be considered when deciding how many and what types of retail facilities may be provided within the area given that many people may/are likely to go there in preference to local shops.

Option 1 with the Leek Road frontage was preferred. This is because Leek Road is a busy thoroughfare and the commercial uses would shield residents from traffic air and noise pollution which could lead to a poorer quality of life. Another reason for retaining the commercial uses is Leek Road's strategic employment role.

#### 8.4.6 Street furniture and lighting

Maintenance and upkeep of street furniture such as street lights, benches and all open spaces should be considered at the initial masterplanning stage.



With regards to the tree lined boulevards, the maintenance of the trees will need to be considered. This includes ensuring that measures are in place to a) sweep leaves regularly and unblock drains if leaves get in, b) make sure that trees do not block light out of residents' windows and c) monitor pavements that may become uneven due to growing tree roots.

#### 8.4.7 Footpaths and cycleways

Ensure wide footpaths across both sides of all roads within the development area.

Ensure distinct but integrated footpaths and cycle paths on both sides of the main neighbourhood roads.

#### 8.4.8 Roads and crossing points

Ensure that the crossing points are suitable for use by both pedestrians and cyclists within the development area.

Ensure safe pedestrian and cyclist crossing points at the intersections with the main roads skirting the edge of the development area.

A through route from Waterloo Street to Botteslow Street may make it more viable to have a bus service go through the north side of the development area. However, this is likely to increase motor vehicle traffic along Waterloo Road. This could be reduced by making it a reduced speed/Home Zone route and having dedicated/integrated footpaths and cycle paths.

The neighbourhood spine road cutting across Botteslow Street and the adjacent Redrow Estate may improve east-west access and ease the pressure of a current 'rat run' at the top end of the plan near Bucknall New Road when it gets busy.

A tree lined boulevard would encourage people to walk thereby improving the north-south access particularly where this is complemented by access that leads directly to the canal.

It is necessary to consult with the school in order to come up with a suitable traffic plan that could alleviate some of the congestion in that area. A suggested traffic calming measure around the school would be to locate the drop off /pick up point at the rear of the school which can be accessed through the school gates off Wellington Road.

#### 8.4.9 Public transport

To include some form of public transport within the community in addition to that provided at the periphery of the development, the community centre could be a hub for community transport schemes such as 'dial-a-ride'.

Improvements to bus shelters on the major roads would allow natural surveillance and enhance safety encouraging bus use.

In cases where widening of the roads are being considered, making the road a reduced speed/Home Zone route could address issues of increased vehicular congestion and traffic.

#### 8.4.10 Housing standards

Ensure that all new housing attain standards laid out in 'Code for Sustainable Homes', 'Lifetime Homes', 'Decent Homes' and any other relevant guidance.

#### 8.4.11 Recycling

Build in space for community recycling facilities e.g. paper, glass and can recycling pods.

# 9 Community Views on the City Waterside East Masterplan Design Options

## 9.1 Introduction

9.1.1 As part of the masterplanning process, Taylor Young have facilitated various community events to guide the development of the Final Preferred Masterplan Design from the four Draft Masterplan Designs Options.

9.1.2 This chapter provides an overview of the views and feedback received from the series of options appraisal workshops, exhibition events, individual door knocking and eight week consultation organised through the Hanley South Residents Action Group.

9.1.3 Table 9.1 shows the key themes that were identified and the community's preference option.

9.1.4 A separate Visions and Options Report produced by Taylor Young gives a more detailed description of the types of analysis and appraisals carried out including strategic, economic and financial appraisals.

**Table 9.1 Community feedback on the CWE 4 Draft Masterplan Design Options**

	1 <sup>st</sup> Choice	2 <sup>nd</sup> Choice	3 <sup>rd</sup> Choice	4 <sup>th</sup> Choice	5 <sup>th</sup> Choice
<b>Community Centre</b>	Option 3	Option 1	Option 2	No preference	Option 4
<b>New Pubic Open Space</b>	Option 3	Option 1	Option 4	No preference	Option 2
<b>Canal Side</b>	Option 1	Option 2	Option 3	Option 4	No preference
<b>School drop off/pick up</b>	Option 3	No preference	Option 4	Option 1	Option 2
<b>Leek Road frontage</b>	Option 1	Option 4	Option 3 /No preference	Option 2	No fifth choice
<b>East- west access</b>	No preference	Option 2	Option 1	Option 4	Option 2
<b>North-south access</b>	Option 3 /No preference	Option 2	Option 1	Option 4	No fifth choice

## 9.2 Conclusion

9.2.1 Overall, the community's preferred Final Masterplan Design Option is a combination of the following:

- Option Three's proposal for community centre, new public open space, school drop off/pick up and North-south access
- Option One's proposal for the canal side and Leek Road frontage
- No preference for the East-west access.

# 10 Health Impacts of the Final Preferred City Waterside East Masterplan Design Option

## 10.1 Introduction

10.1.1 The analysis of health impacts examined the likely effects during the implementation and short and long term operation phases of the Final Preferred Masterplan Design Option. The main areas of focus were:

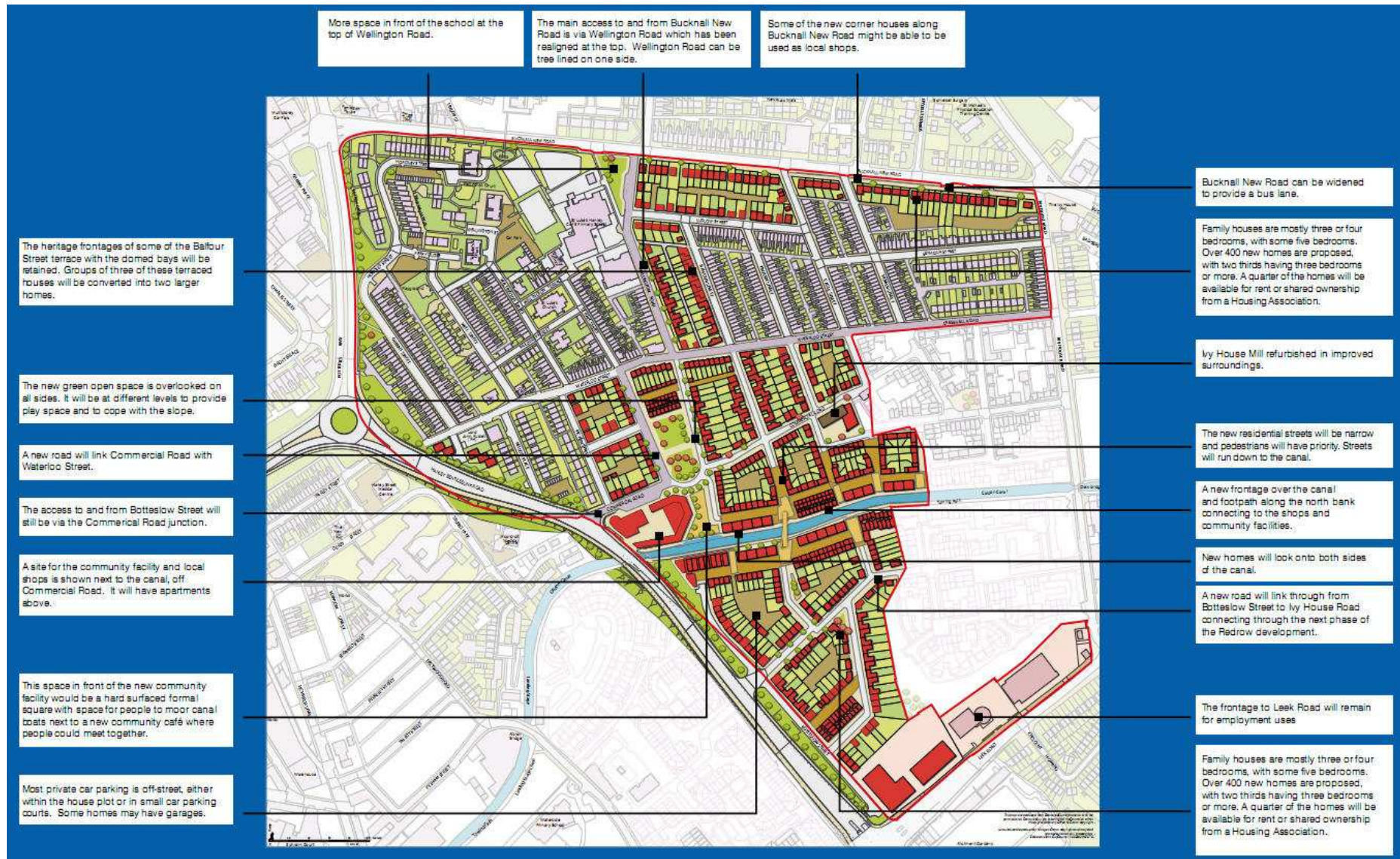
- greenspace and how this can be used to mitigate poor health/maximise health outcomes;
- issues of community cohesion and health inequalities;
- promotion of economic inclusion and the local economy;
- promotion of active living and physical activity;
- promotion of sustainability and 'Green' agendas.

10.1.2 Two summary health impact tables are provided at the end of this chapter (See Tables 10.1 and 10.2).

10.1.3 Appendix C provides detailed health impact analysis tables.

10.1.4 Figure 10.1 shows the Final Preferred Masterplan Option.

Figure 10.1 City Waterside East Final Preferred Masterplan Design Option



## **10.2 Factors influencing the implementation phase**

- 10.2.1 The implementation phase includes demolition and construction however in City Waterside East the demolition work has already taken place with some areas south of Waterloo Road and pockets of areas along Bucknall New Road being vacant.
- 10.2.2 The regeneration is likely to be a phased project with some areas being started and completed before others.
- 10.2.3 Some conversions and refurbishments have been proposed for existing terraced houses along Balfour Street.

## **10.3 Factors influencing the operation phase**

- 10.3.1 The regeneration will help improve the perception of the area among existing residents.
- 10.3.2 There will be an increase in the number of good quality homes plus additional local shops and a new community facility with a local square.
- 10.3.3 New residents moving into the area will have good quality new homes that are built to the latest standards.
- 10.3.4 There may be a sense of 'us and them' between existing residents and new residents moving into the area.
- 10.3.5 The new community facility and adjoining public square are likely to provide focal points for community activities and social interactions.
- 10.3.6 An increased influx of people into the area may mean increased vehicular traffic as well as some pressure on existing amenities and services.
- 10.3.7 Over the long term the community facility and public open and greenspaces will need to be maintained and after 5-10 years need some refurbishment and renovation, to avoid them being rundown and disused.

## 10.4 Health impacts – implementation phase

10.4.1 Overall, the implementation phase is likely to have **minor to moderate negative health and well being impacts**. This depends on how the construction/refurbishment related work and related traffic is managed and also the accessibility to key shops, services and other amenities.

10.4.2 Existing CWE residents and new residents who start moving in whilst there is still ongoing construction/refurbishment work, during the implementation phase may feel the impacts of the development more so than those living on the boundaries/surrounding areas of CWE.

10.4.3 There are two potential positive health and wellbeing impacts of the implementation phase.

10.4.3.1 In terms of *jobs and economy*, opportunities for employment for local people, on the construction sites are likely to have positive impacts. This however is dependent on a) whether strategies are in place that will ensure that local residents are given preference in taking up employment and b) how much of the building materials and equipment are sourced from the Stoke-on-Trent and North Staffordshire. For *most existing and new CWE residents* and surrounding area residents this is likely to have **no effect**. For *unemployed people especially those with construction work related skills (and their families)* this is likely to have a **minor to moderate positive health and wellbeing impact**.

10.4.3.2 In terms of *education and learning*, there may be opportunities for on-the-job training, student placements and work experience. For *most existing and new CWE and surrounding area residents* this is likely to have **no effect**. For those *who gain training, placements and work experience* this is likely to have a **minor to moderate positive health and wellbeing impact**.



10.4.4 There are nine potential negative health and wellbeing impacts of the implementation phase.

#### HEALTH OUTCOMES

10.4.4.1 In terms of *mental health and wellbeing*, there will be nuisance and annoyance associated with the construction activities and the construction traffic (mainly noise and dust.) For *existing and new residents* especially babies and pre-school children, older people and those with disabilities and their carers there is likely to be **a minor to moderate to major negative health and wellbeing impact.**

10.4.4.2 In terms of *chronic disease and pollution effects*, there is likely to be some dust generated during construction/refurbishment work and an increase in air pollution due construction related traffic. For *existing and new CWE residents or those with existing respiratory and long term limiting illnesses* it is likely to be a **minor to moderate negative health and wellbeing impact.**

10.4.4.3 In terms of *physical injury*, there is the potential for incidents to occur in and around the construction sites if the sites and related traffic are not satisfactorily managed. The presence of construction structures such as scaffoldings, the possibility of load slippage from cranes, lorries and other construction machinery, in addition to increased vehicular traffic is likely to pose an increased risk of *physical injury*. For *existing and new residents particularly children, older people and those with disabilities* this is likely to have **a minor to moderate negative health impact.**

#### WIDER DETERMINANTS

10.4.4.4 In terms of *transport and connectivity*, the movement of the construction/refurbishment traffic may generate congestion of roads within the area particularly during school peak times on roads around St. Luke's School. This is likely to make some residents wary of using and crossing the roads. This is also likely to make it difficult for pedestrian and cyclist residents to navigate the streets to make it to Bucknall New Road, Botteslow Street and Leek Road where the public transport network runs.

For *existing and new residents* this is likely to be a **minor to moderate negative health and wellbeing impact**. For *residents whose main access out of City Waterside East is walking and cycling using roads that the construction traffic will use, children and older people who use the outdoors often*, this is likely to be a **moderate to major negative health and wellbeing impact**.

- 10.4.4.5 In terms of *lifestyles and daily routines*, there will be disruption to daily activities and events occurring in the City Waterside East area. For *existing and new residents*, especially children, older people and those with disabilities this is likely to have no effect or a **minor to moderate negative health and wellbeing impact**.
- 10.4.4.6 In terms of *shops and retail amenities*, because the main retail centre is Hanley Town Centre, outside of the masterplan area, access to the shops and retail amenities within City Waterside East for *most existing and new CWE residents*, is likely to have **no effect or a minor negative health and wellbeing impact**. For *older people, those with disabilities and residents (generally women) with young children* who are likely to use local shops, this could be a **minor to moderate negative health and wellbeing impact**.
- 10.4.4.7 In terms of *housing and shelter*, this is likely to depend on the extent of vibration and noise effects on existing housing and also the possibility for construction work to disrupt utility services, waste and sewage disposal particularly for residents close to construction sites. For existing and new residents this is likely to have **no effect or a minor to moderate negative health and wellbeing impact**.
- 10.4.4.8 In terms of *crime and safety*, there is a risk of trespassing, theft, vandalism and graffiti in and around the construction/refurbishment site especially since in the City Waterside East area there is existing crime and anti-social behaviour. It is possible that such activity may migrate into other areas or be amplified because of the construction work. For *existing and new residents*, this is likely to have **no effect or a minor negative health and wellbeing impact**. For *women, older people and those with young children* this is likely to have a **minor to moderate negative health and wellbeing impact**.

10.4.4.9 In terms of *health and social care services*, there are none within CWE and therefore the implementation phase is likely to affect the ease of access for residents particularly residents in the top right quadrant of the masterplan bounded by Waterloo Street, Balfour Street, Ivy House Road and Bucknall New Road as they are more likely to have to go through the area around Commercial Road where most of the development is heavily concentrated. For *existing and new residents*, this is likely to have **no effect or a minor to moderate negative health and wellbeing impact**.

## 10.5 Health impacts – short term/long term operation phase

10.5.1 Initially, the start of the operation phase will be alongside continuing construction work due to the phased nature of the regeneration programme with new people moving in at different times over a period of years.

10.5.2 Overall, for most residents, both existing and new CWE residents, this is likely to be a **minor to moderate positive health and wellbeing impact**.

10.5.3 There are eleven potential positive health and wellbeing impacts of the operation phase.

### HEALTH OUTCOMES

10.5.3.1 In terms of mental health and wellbeing, the regeneration is likely to raise the self esteem of local people and give them an improved neighbourhood and new facilities such as the new community centre. For *existing and new CWE residents* this is likely to have a **minor to major positive health and wellbeing impact**.

10.5.3.2 In terms of *chronic disease and pollution effects*, the increased and improved greenspaces including tree lined boulevards and attractive public realm is likely to encourage people to be more physically active potentially reducing the rise in obesity. Also improved traffic conditions may reduce the air pollutions from vehicles and thus improve air quality. For *existing and new CWE residents* this is likely to have a **minor to moderate positive health and wellbeing impact**.

## WIDER DETERMINANTS

- 10.5.3.3 In terms of *transport and connectivity*, some road layouts will be realigned to improve pedestrian access and access to community features such as the canal. In addition Bucknall New Road will be widened to provide a bus lane and therefore improve public transport provision. These improvements are likely to make the area more accessible for older people, those with young children and those in wheelchairs or on scooters. This in turn is likely to promote and increase physical activity as well as social interaction. For *most existing and new residents* this is likely to be a **moderate to major positive health and wellbeing impact**.
- 10.5.3.4 In terms of *housing and shelter*, the new good quality housing in the area is likely to be a mixture of private and affordable housing and likely to meet the Decent Homes, Code for Sustainable Homes and Lifetime Homes standards. For *new CWE residents moving into the homes* this is likely to be a **moderate to major positive health and wellbeing impact**.
- 10.5.3.5 In terms of *lifestyle and daily routines*, there regeneration is likely to encourage physical activity through increased used of the attractive environment. The tree lined boulevards and the canal with surrounding public realm are likely to encourage cycling and walking. for *most existing and new residents* this is likely to have a **moderate to major positive health and wellbeing impact**.
- 10.5.3.6 In terms of *land and spatial*, the design, layout and use is likely to enhance the visual appeal of the area. For most residents this is likely to be a **minor to moderate positive health and wellbeing impact**.
- 10.5.3.7 In terms of *shops and other retail amenities*, additional local shops are likely to be beneficial in providing residents with a wider range of produce and goods. For *most existing and new CWE residents* this is likely to have no effect or a **minor positive health and wellbeing impact**. For *those residents who need or want to shop locally* this is likely to have a **moderate positive health and wellbeing impact**.
- 10.5.3.8 In terms of *arts and leisure*, there will be an increase in the choice of activities available through the provision of the community facility around

canal and public square areas. For most *existing and new CWE residents* this is likely to have a **minor to moderate health and wellbeing impact**.

10.5.3.9 In terms of *jobs and economy*, there will be an increase in the number of opportunities created with the new community facility and additional local shops in addition to the existing employment uses. For *most existing and new CWE residents* this is likely to have **no effect**. For *those CWE and surrounding area residents looking for work*, this is likely to be a **minor to moderate positive health and wellbeing impact**.

10.5.4 There are two potential uncertain health and wellbeing impacts of the operation phase.

10.5.4.1 In terms of *social capital and community cohesion*, the mix of new residents and how the regeneration fosters social interaction will have an important influence. The opportunity for social gatherings in and around the community centre, canal, public square and increased and improved greenspaces is likely to bring people together. However given the barrier caused by the canal to the residents on the south side and the loss of some existing landmarks e.g. 'Meekin's Open Space, there is a possibility of a sense of 'us and them' developing between existing and new residents. For *existing and new CWE residents* this could have a **moderate negative to a moderate positive health and wellbeing impact**.

10.5.4.2 In terms of energy and waste, this will depend on the recycling facilities and the sustainability measures built into the new housing, the street furniture and the neighbourhood as a whole. For existing and new CWE residents this could have a **minor negative to minor positive health and wellbeing impact**.

10.5.5 The main potential negative health impacts of the regeneration during the operation phase are linked to the long term investment in the maintenance of the area if outline plans for future investment are not developed at this stage. If over the long term the services, facilities and amenities are not maintained, renovated and invested in, then the positive impacts identified above will be lost and negative health and wellbeing impacts will emerge.

## 10.6 Health impacts on existing residents

- 10.6.1 Most residents who faced relocation have already been relocated as most of the demolition work has already occurred.
- 10.6.2 Over the short term, during the implementation phase, there are likely to be some negative health and wellbeing impacts on existing CWE residents from living close to where construction/refurbishment work is taking place.
- 10.6.3 Over the long term, during the operation phase, the health and wellbeing impacts are likely to continue to be positive especially if there is investment in maintaining the area.

## 10.7 Health impacts on new residents

- 10.7.1 The health impacts on new residents will occur during the operation phase though there may still be some construction work taking place when new residents move in due to the phased nature of the redevelopment.
- 10.7.2 Over the short term, during the implementation phase new residents are also likely to experience some negative health and wellbeing impacts like existing residents though they will have a choice about whether to move in while construction/refurbishment is ongoing.
- 10.7.3 Over the long term, during the operation phase, the health and wellbeing impacts are likely to be positive and similar to, or greater than, that for existing residents.

## 10.8 Health impacts on children and young people

- 10.8.1 Over the short term, during the implementation phase, there is likely to be health and wellbeing impacts from:
- 10.8.1.1 *Transport and connectivity:* disruption to access across the area, especially when getting to and from St Luke's School and other schools outside the area. This is likely to increase journey times.
- 10.8.1.2 *Education and learning:* the noise from the construction work, especially the work along Bucknall New Road and the proposed realignment of

Wellington Road close by may have a slight negative impact on children's learning.

10.8.1.3 *Physical injury:* there are potentially higher risks of physical injury because of the construction work and lorry traffic moving in and around the area.

10.8.1.4 *Land and spatial:* the development sites and wider neighbourhood would be visually unattractive due to the presence of scaffolding and construction machinery. Parents of children and young people are less likely to let them spend time outdoors.

10.8.2 Over the long term, during the operation phase, the health and wellbeing impacts are from:

10.8.2.1 *Transport and connectivity:* improved road, pedestrian and cycle networks, which will make the area more accessible thus making it easier to travel to and from the school and the new community facility.

10.8.2.2 *Arts and Leisure:* The provision of the new community facility is likely to increase the choice of activities available to children and young people.

10.8.2.3 *Land and spatial:* the provision of some potentially enhanced greenspace and public openspace which will offer new things and be attractive for children to visit and spend time outdoors.

## 10.9 Health impacts on women

10.9.1 Over the short term, during the implementation phase, the health and wellbeing impacts are from:

10.9.1.1 *Lifestyle and daily routines:* disruption to their daily routine particularly those women with childcare responsibilities. There is likely to be disruption to taking children to the local school, getting access to shops, health, social care and other related services in the surrounding areas especially as such facilities are limited in City Waterside East.

10.9.1.2 *Transport and connectivity:* disruption to their access to buses and walking in and around the area. Those who rely on public transport are likely to face the most disruption as access through the CWE area to the boundary where the bus network runs may be restricted.

10.9.1.3 *Mental health and wellbeing*: the noise from the construction/refurbishment activities if they live around construction sites, the perceived unsafeness of the area especially in the evening and at night and the disruption to access identified above may impact on mental health and wellbeing.

10.9.2 Over the long term, during the operation phase, the health and wellbeing impacts are likely to be positive in line with the general impacts of the operation phase described earlier particularly if the detailed design of the area includes good accessibility for those with pushchairs, a good range of shops and amenities and a clean litter free environment.

## **10.10 Health impacts on older people**

10.10.1 Older people are likely to have a similar set of health and wellbeing impacts to women though the significance of the negative impacts in particular are likely to be greater for this group of residents particularly if they live close to the construction work.

10.10.2 They are also more likely to reduce going outdoors, find it more difficult to shop for themselves and more easily lose contact with friends and family during the implementation phase because of the general disruption and difficulties especially in terms of going by bus and walking across and around the area.

## **10.11 Health impacts on people with disabilities**

10.11.1 People with disabilities would also have a similar set of health and wellbeing impacts to women and older people and again depending on their disability the significance of the negative impacts in particular is likely to be greater on this group of residents during the implementation phase particularly if they live close to the construction work.

## **10.12 Health impacts on black and minority ethnic groups**

10.12.1 Residents from black and ethnic minority backgrounds are likely to have a similar set of health and wellbeing impacts to existing and new residents.



### **10.13 Health impacts on low income/unemployed people**

10.13.1 Provided there is a policy in place that local residents will be targeted first and supported to take on locally generated jobs, the new jobs created during both the implementation and operation phases are likely to have a positive impact on health and wellbeing. Otherwise there is a potential for negative health and wellbeing impacts as they lose hope and feel further excluded.

### **10.14 Long term and cumulative impacts**

10.14.1 As the regeneration will be phased, long term impacts may arise from the extended construction phase in some areas running concurrently to the operation phase in other parts of CWE.

10.14.2 These long term impacts are likely to be minor to moderate negative health impacts for both existing residents and new residents who move in at the early stages of the operation phase.

10.14.3 Cumulative impacts could arise from other proposed developments that may be carried out in and around the City Waterside East area. These include the Redrow development in the Leek Road/Ivy House Road area and the Amphora development on the other side of Botteslow Street.

10.14.4 For most new and existing residents this is likely to amplify the potential negative impacts and reduce the positive health and wellbeing impacts experienced from the main City Waterside East regeneration.

10.14.5 The resident groups likely to be increasingly affected by cumulative impacts from other proposed developments are those closest to Redrow and Amphora developments particularly residents with long term limiting illnesses whose poor health magnifies the effects of the potential minor to moderate negative health and wellbeing impacts.

## **10.15 Equity impacts**

10.15.1 Alongside the equity impacts identified above in relation to specific groups, almost all of the new housing and facilities are to the south of Waterloo Street. This may create a 'physical divide' and bring about a sense of 'us and them'. This may further widen the present inequalities faced by existing residents.

10.15.2 The community centre is on the North side of the development and access to it from the south side involves a roundabout route using a single bridge across the canal.

## **10.16 Conclusion**

10.16.1 The proposed redevelopment has overall positive health and wellbeing impacts for most residents of City Waterside East.

10.16.2 However, those living close to construction sites; existing residents; older people, children and young people, those with disabilities and existing health conditions and those with young children are likely to be most adversely affected during the construction/refurbishment phase.

10.16.3 Over the long term if there is no maintenance, investment and renovation then the positive health and wellbeing benefits of the redevelopment will be lost and replaced by potentially significant negative health and wellbeing impacts.

10.16.4 The next chapter recommends some key mitigation and enhancement measures to minimise the negative health and wellbeing impacts and maximise the positive impacts.

**Table 10.1 Implementation phase (the majority of these health and wellbeing impacts are temporary and reversible)**

**red = negative impact**, **amber = uncertain impact (could be +ve or -ve)**, **green = positive impact**, **white = no impact or not identifiable**

(This table summarises the detailed health impact tables and identifies the possible impacts and those groups that could be worst affected or could benefit the most)

People affected		Overall	Chronic diseases & pollution	Physical injury	Mental health & wellbeing	Jobs and economy	Housing & shelter	Transport & connectivity	Education and learning	Crime & safety	Health and social care services	Shops and retail	Social capital and community cohesion	Arts and leisure	Lifestyle and daily routines	Energy and waste	Land and spatial
Existing CWE residents	Existing CWE residents	Red	Red	Red	Green	Red	Red	White	White	Red	Red	Red	Red	Red	Red	White	Red
	New CWE residents (if they move in whilst there is ongoing construction work)	Red	Red	Red	White	Red	Red	White	White	Red	Red	Red	Red	Red	Red	White	Red
	Residents living around the CWE area	White	White	White	Green	White	White	White	White	White	White	White	White	White	White	White	White
Gender	Women	Red	White	White	Red	Green	White	Red	White	Red	Red	White	Red	White	Red	White	White
	Men	White	White	White	White	Green	White	Red	White	White	White	White	White	White	Red	White	White
Ethnicity	Asian (Indian subcontinent)	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	Black	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	East Asian (Chinese etc)	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	Mixed ethnicity	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White

People affected		Overall	Chronic diseases & pollution	Physical injury	Mental health & wellbeing	Jobs and economy	Housing & shelter	Transport & connectivity	Education and learning	Crime & safety	Health and social care services	Shops and retail	Social capital and community cohesion	Arts and leisure	Lifestyle and daily routines	Energy and waste	Land and spatial
Age	White (incl. Irish and European)																
	Older people	Red	Red		Red			Red		Red	Red	Red	Red		Red		Red
	Children and young people	Red	Red	Red	Red			Red	Red	Red	Red		Red	Red			Red
Disability	Physical	Red			Red			Red				Red	Red		Red		
	Sensory	Red			Red			Red				Red	Red		Red		
	Learning	Red			Red			Red				Red	Red		Red		
	Mental health	Red			Red			Red				Red	Red		Red		
Faith	Christian																
	Muslim																
	Other																
Other	Unemployed people					Green											
	Those with long term limiting illnesses	Red	Red		Red			Red			Red	Red	Red		Red		Red

**Table 10.2 Operation phase (when the City Waterside East Preferred Masterplan is built)**

**red = negative impact**, **amber = uncertain impact (could be +ve or -ve)**, **green = positive impact**, **white = no impact or not identifiable**

(This table summarises the detailed health impact tables and identifies the possible impacts and those groups that could be worst affected or could benefit the most,)

People affected	Overall	Chronic diseases & pollution	Physical injury	Mental health & wellbeing	Jobs and economy	Housing & shelter	Transport & connectivity	Education and learning	Crime & safety	Health and social care services	Shops and retail	Social capital and community cohesion	Arts and leisure	Lifestyle and daily routines	Energy and waste	Land and spatial
Existing CWE residents	Green	Green	White	Green	White	White	Green	White	Green	Green	Green	Amber	Green	Green	Amber	Green
New CWE residents	Green	Green	White	Green	White	White	Green	White	Green	Green	Green	Amber	Green	Green	Amber	Green
Residents living around the CWE area	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
Gender	Women	Green	White	Green	White	White	Green	White	White	Green	Green	Amber	Green	Green	White	Green
	Men	Green	White	Green	White	White	Green	White	White	Green	White	Amber	Green	Green	White	White
Ethnicity	Asian (Indian subcontinent)	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	Black	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	East Asian (Chinese etc)	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	Mixed ethnicity	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
	White (incl. Irish and European)	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White

People affected		Overall	Chronic diseases & pollution	Physical injury	Mental health & wellbeing	Jobs and economy	Housing & shelter	Transport & connectivity	Education and learning	Crime & safety	Health and social care services	Shops and retail	Social capital and community cohesion	Arts and leisure	Lifestyle and daily routines	Energy and waste	Land and spatial
Age	Older people	High			High			High			High	High	Very High	High	High		High
	Children and young people				High			High			High		Very High	High	High		High
Disability	Physical				High			High			High						
	Sensory				High			High			High						
	Learning				High			High			High						
	Mental health				High			High			High						
Faith	Christian																
	Muslim																
	Other																
Other	Unemployed people					High							Very High	High			
	People with long term limiting illnesses										High		Very High	High	High		

# 11 Measures to Optimise the Potential Health Outcomes

## 11.1 Introduction

11.1.1 The recommendations described in this section if properly applied and monitored will ensure that the majority of the negative health and wellbeing impacts of the Final Preferred Masterplan Option are mitigated and the positive health and wellbeing benefits enhanced.

11.1.2 The measures are likely to ensure that health inequalities are not widened and could potentially also help to reduce some of these inequalities over the longer term.

11.1.3 The recommendations also take into account cumulative effects that could arise due to other developments being implemented around the same time as the City Waterside East regeneration.

11.1.4 This set of mitigation and enhancement measures should inform, be read alongside and implemented in conjunction with measures suggested by other assessments.

11.1.5 The regeneration of the City Waterside East area has a very strong potential to:

- to use greenspace to mitigate poor health/maximise health outcomes;
- promote community cohesion and reduce health inequalities;
- promote economic inclusion and boost the local economy;
- promote of active living and physical activity;
- promote sustainability and 'Green' agendas.

## 11.2 Design aspects

### 11.2.1 Walkability and Connections

- 11.2.1.1 It is important to integrate paved surfaces with the greenspaces provided on the edges of the masterplan to connect residents to the main roads and surrounding areas around the masterplan boundary.
- 11.2.1.2 Ideally, there should be a provision for two bridges across the canal to ensure that the community centre is an amenity that is easily accessible to residents in the north and south sides of the masterplan area. However, where only one bridge can be provided, the bridge should be located closer to the community centre than currently proposed (See Figure 11.1)
- 11.2.1.3 It is unclear what the cycle and pedestrian networks are within the masterplan area but it is important to ensure that they link in and connect the facilities, services and amenities provided within the area e.g. St Luke's School and Church, the community centre, the Caldton Canal, greenspaces and the public square.

**Figure 11.1: Potential locations for new bridges across Caldton Canal.**





### 11.2.2 Designing and investing in high quality housing

- 11.2.2.1 All the new housing should meet Code for Sustainable Homes (a minimum of Level 4) and Lifetime Homes standards. There are some potential differences between these standards in some specific areas e.g. most notably in relation to car parking and the different requirements for flats and homes generally. However, the additional costs attached to meeting these standards are very likely to be offset by the greater desirability, value and comfort provided by these homes to residents who move into these new homes.
- 11.2.2.2 There has been discussion of a more ambitious Decent Homes Plus Standard to supersede the current 2010 standard. Any Decent Homes Plus or similar Standard should be better aligned to the wishes and expectations of residents and should include:
- An ambitious thermal comfort criterion (insulation).
  - Accessibility standards for elderly and disabled people.
  - Internal noise insulation within and between dwellings.
  - Standards for the external environment (i.e. communal areas) that integrates the Decent Homes Plus or similar Standard with the Sustainable Communities policy.
- 11.2.2.3 All homes should enable wheelchair (and hence push chair) access without modification.
- 11.2.2.4 Ensuring that the new housing caters for single people, couples and families and that there is a range of housing including 1, 2, 3 and ideally 4 bedroom housing.

### 11.2.3 Home Zones and Secure by Design approach to neighbourhood design

- 11.2.3.1 A commitment to developing the majority of the development using Home Zone design principles to create an active community and walkable neighbourhood, allowing local people - especially children, older people and those with disabilities - to be physically active, to use street spaces and reduce the potential for road traffic incidents and injuries. This could

be through a range of crossing points e.g. zebra crossings, paved raised areas that help slow down traffic, pedestrianisation, etc.

- 11.2.3.2 Using Secure by Design principles in the development of the final design that works with the concept of a walkable neighbourhood.
- 11.2.3.3 Ensuring safe, accessible, well lit and well connected footpaths/pavements, cycle ways and bus stops
- 11.2.3.4 It will be important to have a large and wide pelican crossing or zebra crossing with the crossing area raised a little to ensure that there is good connectivity in the area and also into the wider neighbourhood.
- 11.2.3.5 There should be good lighting during the evening and night with the street lighting linking into the existing street lighting programme in the area.
- 11.2.3.6 Formal cycleways and footpaths that are introduced should be integrated in with existing ones and easily connect key services and amenities to residential areas for improved accessibility.
- 11.2.3.7 Bus stops should provide modern high quality sheltered bus stops with seating. This should link into any wider programme to upgrade all the bus stops in the surrounding area.

#### 11.2.4 Design of diverse and flexible employment buildings

- 11.2.4.1 The development of an **Employment Space Allocations Policy and Communication Plan** which would set the broad strategic direction for the kinds of uses that would be favoured e.g. no proliferation of fast food takeaways.
- 11.2.4.2 Shopping amenities should be high quality as well as affordable.
- 11.2.4.3 An indication of how much the retail space would be rented out for and the likely leasehold obligations should be in place.
- 11.2.4.4 The design of the retail spaces needs to ensure that the buildings are suitable for modern retailers and are flexible in terms of their different

potential uses over a 25 year period e.g. grocer, butcher, baker, café, restaurant, hairdresser, bookshop, mini supermarket, etc.

#### 11.2.5 Ensuring safe, diverse and high quality open public and green spaces

11.2.5.1 As discussed in earlier stages of the Draft Designs, there should be provision of useable biodiverse multi-functional greenspace, e.g. parks that includes play areas for children and young people wherever possible and sheltered seating for adults and older people. Public open spaces that are inviting and attractive for people to gather, walk and sit in.

11.2.5.2 Integrate the management and maintenance of the public open and green space into the existing **Public Open and Greenspace Management and Maintenance Plan** for the area.

#### 11.2.6 Sustainable management of waste and recycling

11.2.6.1 Ensure appropriate provision of residential waste bins and bin sheds and recycling provision.

11.2.6.2 Ensure appropriate provision of public litter bins and consider the provision of smaller public recycling bins alongside litter bins.

11.2.6.3 Ensure the provision of larger collective recycling bins for paper, glass and aluminium cans in the area.

11.2.6.4 Consider the provision of cigarette smoking and chewing gum poles.

### 11.3 Implementation phase

#### 11.3.1 Health and safety in and around the redevelopment site

11.3.1.1 Appoint a Main Contractor and Sub-Contractors with an excellent safety record, low complaints record and a good history of working with residents.

- 11.3.1.2 Ensure that the Main Contractor and Sub-Contractors are part of the Considerate Constructors Scheme and the project is registered with the Scheme ([www.considerateconstructorscheme.org.uk](http://www.considerateconstructorscheme.org.uk)).
- 11.3.1.3 Develop and agree on a site specific Code of Construction Practice (CoCP) to deal with potential nuisance issues resulting from the construction site and its operation. This should include a clear line of communication, for example a dedicated helpline phone number, to enable local people to report issues and clear responsibilities for how the main construction contractor will respond to these issues.
- 11.3.1.4 Ensure adherence to the new Construction (Design & Management) Regulations 2007 (CDM 2007) that has come into force and aim to integrate health and safety into the project management process. The Health and Safety Executive has produced an accompanying Approved Code of Practice document '*Managing Health and Safety in Construction*' which sets out the implications of the new legislation for developers, contractors, designers and workers.
- 11.3.1.5 There should be a **Construction Phase Health and Safety Management and Communication Plan** (see also **Construction Traffic Route and Timing Management and Communication Plan**). This should cover likely health and safety risks as well as potential risks such as exposure to sewage and contaminated water and soil.
- 11.3.1.6 This will be especially important as there are plans for a phased construction work with services and residents still living in the area while work takes place in other parts.
- 11.3.1.7 Secure the perimeter of the construction sites and consider regular patrols after dark either by local police/community wardens or a private security company. This is particularly important given the high incidence of crime and antisocial behaviour in Hanley East and Joiners Square.
- 11.3.1.8 Loss of access to play areas should be marked out in the designs and plans for the construction phases.
- 11.3.1.9 Having a named Contractor Community Liaison Lead/s from the main contractor/s who have responsibility for listening to any community

issues/complaints and the power/authority to resolve them will enhance the relationship between them and the local residents.

- 11.3.1.10 Set up monthly meetings between resident's representatives and the Contractor Community Liaison Lead/s.

### 11.3.2 Dust and noise from the site and lorries

- 11.3.2.1 Ensure that best practice is used in dealing with construction related noise, dust and materials and the appropriate removal of asbestos or other hazardous material found on site using approved contractors and equipment.
- 11.3.2.2 Although dust generation will be minimal due to the small scale of the remaining demolition work, it is important to ensure that dust minimising measures such as constant wetting of rubble (and other dust generating materials) is done.
- 11.3.2.3 It is also important to reduce noise from site activity and site equipment using noise barriers, switching off machinery and enclosing certain activities to reduce sound travel.
- 11.3.2.4 Pavements and roads in and around the area should be kept clean and dirt, soil and materials should be regularly swept away. Pedestrian routes should enable scooters, push chairs and wheelchairs to be used along them without difficulty.

### 11.3.3 Local recruitment of construction workers

- 11.3.3.1 Ensure recruitment for the construction jobs starts locally through the local job centres before being advertised more widely.

#### 11.3.4 Protecting access to public transport, pedestrian routes and emergency vehicles

- 11.3.4.1 Develop a **Construction/Refurbishment Phase Bus, Pedestrian and Emergency Access Management and Communication Plan** in liaison with local bus operators identifying alternative safe bus routes and alternative safe sheltered bus stops in, and near to, the City Waterside East area depending on the boundaries of construction/refurbishment activities.
- 11.3.4.2 Ensure that pedestrian routes (footpaths and pavements) are maintained of an adequate width for scooters, push chairs and wheelchairs and that there is good access through and around the area.
- 11.3.4.3 Have discussions with Staffordshire Fire and Rescue Service, Ambulance Service and the Main Contractor to ensure that emergency vehicle access is maintained to all parts of CWE.
- 11.3.4.4 Ensure regular, wide and early communication, including large print and audio material, of any new route and temporary new bus stops (including a location map), any potential changes to the route times and alternative walking routes in and around City Waterside East targeting all the residents of CWE and surrounding areas.

#### 11.3.5 Reducing crime and enhancing safety

- 11.3.5.1 Ensure that construction/refurbishment workers have specific contractor ID and branded clothing e.g. high visibility jackets with the name of the contractor.
- 11.3.5.2 Ensure additional police and community warden patrols in and around the City Waterside East during the construction phase both during the day and especially in the evening and at night. This could be additional to the private security arrangements provided by the Main Contractor.
- 11.3.5.3 Ensure that there is adequate street or temporary lighting around the development site.

- 11.3.5.4 Regular monthly meetings between Police, Community Wardens, the Main Contractor and resident representatives to ensure that crime and safety issues are dealt with promptly.

## 11.4 Operation phase

### 11.4.1 New residents moving into the area

- 11.4.1.1 It will be important to develop events and activities where new and existing residents are encouraged to take part and for there to be outreach activities within the area that enables new and established residents to come together. The new community centre can be a focal point for such activities and events.

### 11.4.2 Existing residents

- 11.4.2.1 As identified earlier there will be considerable change and some existing residents, particularly those with health and social care needs, may find the transition and transformation difficult to deal with. Ensuring that there is continuity of support through the construction/refurbishment phase and through the early part of the operation phase will be worthwhile.
- 11.4.2.2 Critical to the long term success of the regeneration of City Waterside East will be a detailed and fully funded maintenance programme to include the landscaped areas and the refurbished street furniture and lighting. If possible, local residents should be involved in developing and helping to take ownership for ensuring that the area is well maintained and that issues are reported to those with responsibility for dealing with repairs and maintenance.
- 11.4.2.3 Having additional community warden and policy patrol in the early stages of the operation phase are likely to ensure that any potential anti-social behaviour is prevented early and where it does occur is dealt with appropriately to prevent recurring incidents.

## **11.5 Health activities allied to the operation phase**

- 11.5.1 In the wider regeneration scheme, alongside plans for the physical redevelopment of City Waterside East, there should also be ongoing community development work.
- 11.5.2 It is important that the community development aspects and the regeneration of the built environment are linked and jointly considered and assessed in order to better enhance the potential benefits especially in terms of social capital and community cohesion.
- 11.5.3 These considerations could include investment in joint programmes that will enable local residents, groups and organisations to a) increase their physical activity through the development of individually tailored travel plans that include public transport and the green links (cycleways and footpaths) in and around City Waterside East; b) organise and take part in community events and activities; c) access culture, leisure and recreational amenities; and d) access health, social care and other services.

## **11.6 Climate change considerations in design aspects and implementation and operation phases**

- 11.6.1 One of the important wider considerations at the heart of the regeneration scheme is sustainability and the implications for climate change.
- 11.6.2 All building design should take into account the likelihood of hot summer, milder winters and more heavy rainfall.
- 11.6.3 All building designs should take into account measures to ensure energy efficient lighting and maximise the possibility of incorporating natural lighting throughout. Other energy efficient measures to include energy efficient supply and distribution as well as use of energy efficient electrical appliances should be implemented.
- 11.6.4 Greenspace can act as a flood sink and filter air pollutants. Greening of the local roads is also important in reducing the 'heat island' effect and providing shade.



# 12 Monitoring and Evaluation of the Potential Health Impacts

## 12.1 Introduction

12.1.1 This Chapter identifies some useful indicators that could be used to monitor and evaluate the health impacts of the City Waterside Preferred Option and Masterplan.

12.1.2 In general, it is difficult to identify routine monitoring indicators that are:

a) sensitive enough to detect the localised changes due to the implementation and operations phases of the development and

b) easy to collect.

12.1.3 This report therefore identifies some possible indirect as well as direct health indicators though some may not be sensitive enough to detect changes while others will require financial, time and staff resources to collect.

## 12.2 Monitoring and evaluation

Indicator	Phase	Data collected	Recommended Lead Agencies
Residents' complaints about nuisance/annoyance and perceived danger from construction/road works	Implementation	Number, frequency and geographical distribution of complaints across the area Number of satisfactory resolutions of complaints	Main Contractor Stoke City Council (SCC)
Residents' complaints about disruption to access to bus services.	Implementation	Number, frequency and geographical distribution of complaints across the area Number of satisfactory resolutions of complaints	Bus Service Operators SCC
Employment	Implementation	Number of local contractors/residents taking on construction jobs	Main Contractor SCC
Crime and anti-social behaviour statistics	Implementation Operation	Number of crime/graffiti/vandalism/incivilities/anti-social behaviour incidents in the City Waterside East area	Police SCC
Road and road traffic incidents	Implementation Operation	Number of road traffic incidents, injuries and fatalities in both phases	Highways Agency Police
Air pollution	Operation	Air monitoring in City Waterside East area	SCC
Greenery and litter	Operation	Level of cleanliness and maintenance of greenspace	SCC

Indicator	Phase	Data collected	Recommended Lead Agencies
House prices	Operation	House prices in City Waterside East area	SCC Local estate agents
Household surveys	Operation	Satisfaction with redeveloped City Waterside East area	SCC
Indices of Multiple Deprivation	Operation	Comparison of any future Indices of Deprivation with current indices	Stoke NHS
Health Impact Assessment	Operation	Follow up HIA in 5 years time in conjunction with new census data and new deprivation indicators	Stoke NHS SCC

## 13 Conclusion

13.1.1 Overall, the regeneration of City Waterside East is likely to have a significant positive health and wellbeing impact on existing and new residents.

13.1.2 It has a few potential negative health impacts during the implementation phase the majority of which are likely to be minor to moderate in nature, short term and temporary.

13.1.3 Existing residents however are faced with having to live on a 'building site' especially as it is a phased development that may go on for about 10 years. This may be further compounded by other developments which have been proposed in surrounding neighbourhoods in terms of the wider regeneration of Stoke-on-Trent. Therefore, some detailed planning needs to be carried out to ensure that the implementation phase considers the potential cumulative small-scale localised negative impacts of physical disruption, noise, dust and lorry traffic through City Waterside East and the surrounding areas.

13.1.4 The masterplanning process is limited to the spatial relationship of housing blocks, new employment sites; green and public open spaces and road networks. Key issues that need to be considered alongside this are:

- Standards to which the housing will be built
- Detailed design of the employment/retail spaces and open and green spaces
- Development of management plans for community space
- Detailed plans outlining access routes in and around City Waterside East

13.1.5 It is important to note that there will need to be a continuing investment in publicly owned amenities in 10 years time and ongoing maintenance including that of street furniture, lighting and open and green spaces to ensure that the positive benefits of the regeneration carry on long term.

13.1.6 In the long term there will need to be a reassessment of the needs of the changing community to identify when and what further physical re-developments are required.

# Appendix A: HIA Project Steering Group Members

A  
P  
P  
E  
N  
D  
I  
X  
A



## Members of the HIA project Steering Group

Tamsin Hartley (Chair)	Head of Strategy & Policy, NSRP/North Staffordshire RENEW
Judy Kurth (Project Coordinator)	LSP Strategic Coordinator, WHO Healthy City Partnership
Dr Zafar Iqbal	Deputy Director of Public Health, Stoke NHS
Harmesh Jassal	Development Manager, NSRP/North Staffordshire RENEW
John Nichol	Group Transport Manager, NSRP/North Staffordshire RENEW
Brian Davies	Planning Policy Manager, NSRP/North Staffordshire RENEW
Sarah Humphreys	Leek Town Centre Coordinator, Staffordshire Moorland DistCouncil
Jacqueline Small	Head of Health Promotion, North Staffordshire NHS
Jacqui Ginnane	Interim Manager, NSRP/North Staffordshire RENEW





# Appendix B: Search Strategy for the Evidence Review

A  
P  
P  
E  
N  
D  
I  
X  
B



### **Aims of review**

The review was conducted to identify the positive and negative health impacts of housing-led regeneration schemes and regeneration in general.

### **Background**

The research on regeneration and health is very extensive and a systematic review was not within the scope of this HIA or likely to be useful given the range of existing reviews available.

### **Review methods**

1. Review of existing reviews on regeneration and health focusing on housing improvements and new housing developments.
2. Review of HIA reports of regeneration projects.

### **Key search terms**

The following terms were used in various combinations in PubMed, the Journal of Epidemiology and Community Health and Journal of Public Health:

Health impacts

Housing regeneration

Regeneration

### **Search Years**

Literature since 1990.

### **Language**

Only English language documents were considered.

### **Inclusion or exclusion criteria**

None

### **Evaluation of quality**

We did not conduct a formal quality review of the studies and articles identified as this was beyond the scope of this rapid HIA. However we did focus on impacts that were identified as important by more than one report.



# Appendix C: Detailed Health Impact Tables

A  
P  
P  
E  
N  
D  
I  
X  
C



## Health impact tables for the implementation and operation phases of the City Waterside East Preferred Option and Masterplan compared to no development taking place

### Definition of the levels of potential impact

Significance Level	Criteria
Major +++/-- (positive or negative)	Health effects are categorised as major if the effects may lead directly to mortality/death or acute or chronic disease/illness. The exposures tend to be of high intensity and/or long duration and/or over a wide geographical area and/or likely to affect a large number of people e.g. over 500 or so and/or sensitive groups e.g. children/older people. They can affect either or both physical and mental health and either directly or through the wider determinants of health and wellbeing. They can be temporary or permanent in nature. These effects can be important local, district, regional and national considerations. Mitigation measures and detailed design work can reduce the level of negative effect though residual effects are likely to remain.
Moderate ++/-- (positive or negative)	Health effects are categorised as moderate if the effects are long term nuisance impacts from odour and noise, etc or may lead to exacerbations of existing illness. The exposures tend to be of moderate intensity and/or over a relatively localised area and/or of intermittent duration and/or likely to affect a moderate-large number of people e.g. between 100-500 or so and/or sensitive groups. The negative impacts may be nuisance/quality of life impacts which may affect physical and mental health either directly or through the wider determinants of health. The cumulative effect of a set of moderate effects can lead to a major effect. These effects can be important local, district and regional considerations. Mitigation measures and detailed design work can reduce and in some cases remove the negative and enhance the positive effects though residual effects are likely to remain.
Minor/Mild +/- (positive or negative)	Health effects are categorised as minor/mild if they are generally nuisance level/quality of life impacts e.g. noise, odour, visual amenity, etc. The exposures tend to be of low intensity and/or short/intermittent duration and/or over a small area and/or affect a small number of people e.g. less than 100 or so. They can be permanent or temporary in nature. These effects can be important local considerations. Mitigation measures and detailed design work can reduce the negative and enhance the positive effects such that there are only some residual effects remaining.
Neutral/No Effect ~	No effect or effects within the bounds of normal/accepted variation.

## Implementation Phase (0-5 years)

As the demolition and construction phase are closely linked this table analyses both aspects under implementation phase.

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
----------------------	----------------	--------	-------------------------------------	--



Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<b>Overall</b>	<ul style="list-style-type: none"> <li>▪ No change from existing trends in health and wellbeing.</li> <li>▪ General health and wellbeing status is worse than the national averages with a high proportion of people with limiting long term illness.</li> <li>▪ Some of the housing stock in City Waterside East is of poor quality.</li> <li>▪ Without redevelopment it is likely that the housing and neighbourhoods in City Waterside East will continue to deteriorate.</li> </ul>	-/--	<ul style="list-style-type: none"> <li>▪ The redevelopment is likely to be phased with some key development sites being started and completed before others.</li> <li>▪ For existing residents who remain within the City Waterside East area, the proposed development is likely to have some negative impacts especially if they live near to construction/refurbishment sites. This depends on how construction/refurbishment and related traffic is managed and also accessibility to key shops, services and amenities.</li> <li>▪ The major issues are likely to be a) the potential significant nuisance level impacts on residents living around construction/refurbishment work e.g. noise, dust and disruption to daily routines; b) lesser disruption impacts to other residents on the boundary of the redevelopment area e.g. from lorry traffic; difficulties in accessing the shops, children going to school, etc.</li> </ul>	<p>Existing CWE residents -/--/---</p> <p>Residents living around CWE area ~/-</p> <p>New CWE residents (if they move into their new homes whilst other construction/refurbishment is still taking place) ~/--</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Infectious diseases</i>	<ul style="list-style-type: none"> <li>Levels of infectious disease are low and likely to remain so.</li> </ul>	~	<ul style="list-style-type: none"> <li>The implementation phase is unlikely to cause or spread infectious diseases in residents or construction workers.</li> <li>Workers coming into contact with sewage and contaminated water may be affected by micro-organisms e.g. leptospirosis.</li> <li>The extent of hazard to workers will depend on the management of the construction; strict adherence to health and safety protocols; and availability and use of safety equipment and protective clothing.</li> </ul>	<p>Existing and new CWE residents and residents living around CWE area</p> <p>~</p>
<i>Non-infectious/chronic diseases (including pollution effects)</i>	<ul style="list-style-type: none"> <li>Levels of long term limiting illnesses are higher than the Stoke-on-Trent and national averages.</li> <li>Rates of hospital admissions are higher for under 75 yr olds.</li> <li>Rates of death from all causes are higher for under 75 year olds.</li> </ul>	~	<ul style="list-style-type: none"> <li>The construction/refurbishment work is unlikely to cause non-infectious/chronic diseases in residents or construction workers.</li> <li>However increase in construction/refurbishment related traffic is likely to temporarily increase levels of air pollution.</li> <li>There is likely to be low levels of dust generated but the levels of these are unlikely to lead to respiratory or other health problems however with higher incidence of long term limiting illnesses, this could lead to exacerbation in people with existing conditions.</li> <li>The extent of the hazard to construction/refurbishment workers will depend on the management of the work; adherence to health and safety protocols; and availability and use of safety equipment and protective clothing.</li> </ul>	<p>Existing and new CWE residents or residents with existing respiratory illness or other long term limiting illness</p> <p>-/--</p> <p>Residents living around CWE area</p> <p>~</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Physical injury (including poisoning)</i>	<ul style="list-style-type: none"> <li>Rates of road injuries are lower than the national average.</li> </ul>	~	<ul style="list-style-type: none"> <li>There is a potential for the increased lorry traffic to and from construction/refurbishment sites to result in an increase in road traffic related physical injury especially around the Bucknall New Road and St Luke's School area which are heavily congested during morning and afternoon peak times.</li> <li>However this will depend on whether a traffic plan/route strategy is being implemented to manage major traffic movements.</li> <li>The presence of construction structures such as scaffoldings, the possibility of load slippage from cranes and other construction machinery could pose an increased risk in physical injuries to construction workers and residents living very close to the key development sites (particularly children, older people and people with disabilities).</li> <li>The extent of the hazard to construction workers will depend on the management of the construction process; the strict adherence to health and safety protocols; safe storage and usage of chemical; and availability and use of safety equipment and protective clothing.</li> <li>The hazard to residents, especially children, older people and those with disabilities, will depend on how secure the sites are, ensuring no unauthorised access and good safety practice around the development site where people are likely to be walking to get to public transport, services and amenities.</li> </ul>	<p>Existing CWE residents particularly children, older people and those with disabilities ~/-/--</p> <p>Residents living around CWE area ~</p> <p>New CWE residents (if they move into their new homes whilst other construction is still taking place) ~/-</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Mental health and wellbeing</i>	<ul style="list-style-type: none"> <li>▪ Number of people on incapacity benefits because of mental illness is significantly higher in Stoke-on-Trent than the national average and this could be a possible indication of low levels of mental health and wellbeing.</li> <li>▪ One of the most deprived areas in Stoke-on-Trent and as such likely to affect levels of mental health and wellbeing.</li> </ul>	-/--	<ul style="list-style-type: none"> <li>▪ The implementation phase is likely to be prolonged because of the phased nature of the project and this is likely to give rise to some nuisance effects (e.g. noise, dust, traffic and visual impacts) for residents particularly those living south of Waterloo Street where most of the construction work is concentrated.</li> <li>▪ This may affect sleep patterns especially for residents likely to sleep in the daytime such babies, pre-school children, older people and those working night shifts.</li> <li>▪ Workers on the site could have psycho-social stress related to their work depending on the quality of the contractors used and the terms and conditions under which they are employed.</li> </ul>	<p>Existing CWE residents especially small children, older people, those with disabilities and their carers</p> <p>-/--/---</p> <p>Residents living around the CWE area</p> <p>~/-</p> <p>New CWE residents</p> <p>-/--</p> <p>(if they move into their new homes whilst other construction is still taking place)</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Population demography</i>	<ul style="list-style-type: none"> <li>Hanley East and Joiners Square has a relatively young population with a greater proportion of residents aged 16-44 and 60 years and over.</li> </ul>	~	<ul style="list-style-type: none"> <li>The implementation phase will not influence the population profile of the area though it may lead to some increase in the day-time population if workers are recruited from outside the local area and also if new residents start moving into the area as some new homes become completed and available to buy.</li> </ul>	<p>Existing and new CWE residents and residents living around the CWE area</p> <p>~</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Jobs &amp; economy</i>	<ul style="list-style-type: none"> <li>▪ Unemployment is higher than in Stoke-on-Trent and England and Wales as a whole.</li> <li>▪ Most residents are employed in less skilled/non professional jobs and the manufacturing sector.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>▪ It is unclear how many of the implementation related employment will go to local residents seeking employment.</li> <li>▪ How much the local area benefits, is dependent on whether a local recruitment policy which gives priority to local people has been drafted, agreed and implemented.</li> <li>▪ The main positive impact is likely to be on those in the local area with construction skills and experience and those who are currently unemployed or under-employed.</li> <li>▪ There may be some disruptions to some commercial shops and services particularly those located on Leek Road as it is close to where most of the construction work is taking place.</li> </ul>	<p>Existing and new CWE residents and residents living around CWE area</p> <p>~</p> <p>CWE and surrounding area residents looking for work and those with existing construction skills in Stoke-on-Trent.</p> <p>~+/++</p> <p>Existing shops and businesses</p> <p>~/-</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Housing and shelter</i>	<ul style="list-style-type: none"> <li>▪ Most housing stock is of a poor quality.</li> <li>▪ Without redevelopment it is likely that the housing will continue to deteriorate.</li> </ul>	-/--	<ul style="list-style-type: none"> <li>▪ For residents, particularly those living near construction sites, lorry traffic may cause some vibration effects which can cause annoyance and in some cases can lead to cracks in walls, ceilings and foundations alongside other factors.</li> <li>▪ The construction work could disrupt utility services – water, gas, electricity, waste and sewage disposal for residents living around the sites.</li> </ul>	<p>Existing and new CWE residents ~/-/--</p> <p>Residents living around the CWE area ~</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Transport and connectivity</i>	<ul style="list-style-type: none"> <li>▪ There are 19 bus routes that serve City Waterside East. However the network runs around the periphery of the masterplan area along Bucknall New Road, Botteslow Street and Leek Road.</li> <li>▪ Almost 51% of residents have no car.</li> <li>▪ 37% of the population travel less than 2km; 30% travel between 2 and 5km and 11% travel over 10km to work.</li> </ul>	~	<ul style="list-style-type: none"> <li>▪ There is unlikely to be any direct effects on people's access to private transport.</li> <li>▪ There is likely to be some disruption to local bus services and routes with limited or no access to some bus stops especially as residents may have to walk through and along construction/refurbishment sites to get the buses which run along Bucknall New Road, Botteslow Street and Leek Road.</li> <li>▪ Street closures around construction/refurbishment sites may mean it takes longer for some residents to get to the main roads where the buses run from.</li> <li>▪ Movement of private, and possibly public, transport vehicles is likely to be limited or restricted because of construction work related traffic, road blocks and closures.</li> <li>▪ This may cause some physical severance and reduce physical activity and time spent outdoors for older people and children as local roads may become, or be seen as being, dangerous and difficult to cross.</li> <li>▪ There may be some negative nuisance impacts from the noise and vibration from lorries, both inside homes and outside.</li> <li>▪ There is likely to be a small increase in air pollution from the influx of construction vehicles. Peaks in air pollution concentrations can exacerbate the symptoms of those with existing respiratory and cardiovascular conditions. However, this increase is unlikely to cause physical health effects in most residents.</li> </ul>	<p>Existing and new CWE residents -/-</p> <p>Residents travelling on foot or by cycle --</p> <p>Residents living around the CWE area ~/-</p>



Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Education and learning</i>	<ul style="list-style-type: none"> <li>▪ A high proportion of residents have no qualifications.</li> <li>▪ However, GCSE levels are currently higher than in Stoke-on-Trent as a whole.</li> </ul>	~/+	<ul style="list-style-type: none"> <li>▪ There is likely to be some disruption to children's routes to St Luke C of E Primary School.</li> <li>▪ Construction/refurbishment workers employed on the site, particularly local ones, are likely to gain experience and on-the-job training.</li> <li>▪ Linking into local colleges (in the surrounding areas as none in City Waterside East) and training schemes is likely to increase the chances of local people being recruited for construction/refurbishment jobs as well as young people gaining work experience on employment-linked apprenticeship-type training schemes. This is more likely if local recruitment policy is implemented.</li> </ul>	<p>Existing and new CWE residents ~</p> <p>Children (and their parents) attending St Luke C of E Primary School -/--</p> <p>CWE and surrounding area residents gaining a construction/refurbishment job, training or work experience. +/&gt;+</p> <p>Residents living around the CWE area ~</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Crime and safety</i>	<ul style="list-style-type: none"> <li>Crime rates are proportionally higher than the rates in Stoke-on-Trent with nuisance/anti-social behaviour, violence crime and criminal damage being the top three crime issues.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>There may be a potential risk of trespass, vandalism/criminal damage or theft of construction/refurbishment vehicles; machinery; equipment or tools.</li> <li>The perception of fear and crime may increase especially in women, older people and those with young children.</li> <li>There is a potential for existing criminal activity and anti-social behaviour to migrate to other parts of the area or outside the area.</li> </ul>	<p>Existing and new CWE residents ~/-</p> <p>Women, older people and those with young children -/--</p> <p>Residents living around the CWE area ~</p>
<i>Health &amp; social care services</i>	<ul style="list-style-type: none"> <li>There are no health and social care services based in City Waterside East area.</li> <li>The nearest health centres are Moorcroft Medical Centre and Harley Street Medical Centre on the periphery of City Waterside East on Botteslow Street.</li> <li>Stoke-on-Trent has a good/very good health and social care service overall.</li> </ul>	~	<ul style="list-style-type: none"> <li>Although there are no health and social care services within City Waterside East, the implementation phase is likely to affect ease of access for residents to health centres outside of City Waterside East.</li> <li>This is particularly likely to affect residents in the quadrant bounded by Waterloo Street, Balfour Street, Ivy House Road and Bucknall New Road as they are more likely to have to go through the area around Commercial Road where most of the development is heavily concentrated.</li> </ul>	<p>Existing and new CWE residents ~/-/-</p> <p>Residents living around the CWE area ~</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Shops and other retail amenities</i>	<ul style="list-style-type: none"> <li>Local convenience shopping is found on Bucknall New Road and around Wellington Road</li> <li>The main retail centre is Hanley Town Centre.</li> </ul>	~	<ul style="list-style-type: none"> <li>Access to the few shops and other retail amenities in City Waterside East may be restricted.</li> <li>The potential negative impacts are likely to affect residents who make use of the local shops. This particularly applies to older people and people with disabilities and long term limiting illnesses who may find it difficult to travel to Hanley Town Centre.</li> <li>However, phasing of the regeneration may ensure that access to the few remaining shops in and around City Waterside East is not heavily restricted at any given point in time.</li> </ul>	<p>Existing and new CWE residents ~/-</p> <p>Older people, those with disabilities, those with long term limiting illness and single parents who use local shops. -/--</p>
<i>Social capital and community cohesion</i>	<ul style="list-style-type: none"> <li>City Waterside East is in the most deprived 20% of Lower Super Output Areas in England.</li> <li>68% of Hanley East and Joiner Square residents are satisfied with the area as a place to live.</li> <li>51% of Hanley East and Joiners Square residents feel strongly that they belong to their immediate neighbourhood.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>The construction/refurbishment work in itself will not have any negative or positive effect on social capital and community cohesion.</li> <li>There is a potential for community severance between existing residents around St Luke Primary School area and those around Balfour Street area because of the development going on around Wellington Road, Waterloo Street and Ludlow Street areas.</li> <li>There will start to be an influx of new residents. This may create an 'us and them' situation and it will take time for new residents to establish social links with existing residents.</li> </ul>	<p>Existing and new CWE residents ~/-</p> <p>Residents living around the CWE area ~</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Arts and leisure</i>	<ul style="list-style-type: none"> <li>▪ The Caldon Canal runs through the City Waterside East area.</li> <li>▪ Other arts and leisure activities are available in the areas surrounding City Waterside East.</li> </ul>	~	<ul style="list-style-type: none"> <li>▪ The leisure facilities may not be directly affected but access may be disrupted because of the construction/refurbishment vehicles and fencing off of the construction/refurbishment areas</li> <li>▪ Construction/refurbishment traffic may lead to a reduction in children's outdoor play as parents/guardians see local roads as more dangerous.</li> </ul>	<p>Existing and new CWE residents ~/-</p> <p>Children (outdoor play) -/--</p> <p>Residents living around the CWE area ~</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Lifestyle and daily routines</i>	<ul style="list-style-type: none"> <li>It is likely that there will be no change from existing trends.</li> </ul>	~	<ul style="list-style-type: none"> <li>This will be dependent on the amount of construction/refurbishment traffic and the days and hours of work.</li> <li>It will also be dependent on how the construction/refurbishment sites and related traffic are managed and the adherence to the constructor's code of conduct by the contractors and sub-contractors working on the site.</li> <li>There is likely to be some disruption of lifestyle and daily routine due to the construction/refurbishment traffic.</li> <li>The disruption is likely to increase journey time to services, amenities and facilities e.g. schools, shops and health centre. Longer journeys are likely to leave less time for other daily activities.</li> <li>Residents living near key development sites, children, older people, those with disabilities are likely to be the most affected.</li> </ul>	<p>Existing and new CWE residents ~/-/--</p> <p>Children, older people and those with disabilities -/--</p>
<i>Energy and waste</i>	<ul style="list-style-type: none"> <li>Current energy generation and distribution and waste disposal methods will continue to be in place.</li> <li>Levels of waste composted are low however levels of waste used to recover heat and power is higher than the national average.</li> <li>There is a potential for a greater move towards energy efficiency and more recycling in the future.</li> </ul>	~	<ul style="list-style-type: none"> <li>This will depend on:</li> <li>Whether waste from the site is reused and recycled and the amount of construction/refurbishment waste sent elsewhere.</li> <li>Construction/refurbishment vehicle movements into and out of the area.</li> <li>The types of vehicles used i.e. low emission lorries.</li> <li>The energy and waste strategy developed for the implementation phase.</li> <li>The types of construction/refurbishment materials used.</li> </ul>	<p>Existing and new CWE residents and residents living around CWE area -/-/+</p>

Implementation Phase	No development	Impact	CWE Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Land and spatial</i>	<ul style="list-style-type: none"> <li>▪ Derelict buildings have reduced the visual appeal of the area.</li> <li>▪ Percentage of Stoke-on-Trent residents who think that parks and open spaces in their local area have got better or stayed the same is just under 73%.</li> <li>▪ 94% of the rivers in Stoke-on-Trent are assessed as having poor biological quality and 82% as having poor chemical quality.</li> <li>▪ About 56% of land and highways in Stoke-on-Trent have visible and unacceptable levels of flytipping, flyposting and graffiti.</li> </ul>	-/--	<ul style="list-style-type: none"> <li>▪ The construction/refurbishment activity is likely to make the site visually unattractive. It is likely to compact soils and leave building debris which may affect local greenspace, flora and fauna.</li> <li>▪ The removal of solid and liquid waste will need to be managed carefully especially if it is contaminated with heavy metals, asbestos or other chemicals.</li> <li>▪ The local utility companies will need to be involved to ensure that there is no accidental disruption to residents in City Waterside East and surrounding areas because cables and pipes are dug through and to ensure that appropriate connections are made to the new housing and retail amenities.</li> </ul>	<p>Existing and new CWE residents</p> <p>~/-</p> <p>Residents living around the CWE area</p> <p>~</p>

**Short Term Operation Phase (0-5 years after the implementation phase):**

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<b>Overall</b>	<ul style="list-style-type: none"> <li>▪ No change from existing trends in health and wellbeing.</li> <li>▪ General health and wellbeing status is worse than the national averages with a high proportion of people with limiting long term illness.</li> <li>▪ Some of the housing stock in City Waterside East is of poor quality.</li> <li>▪ Without redevelopment it is likely that the housing and neighbourhoods in City Waterside East will continue to deteriorate.</li> </ul>	-/--	<ul style="list-style-type: none"> <li>▪ There will be an increase in the number of good quality homes – houses and flats – plus a range facilities and amenities for local residents to use – both existing and new.</li> <li>▪ There are likely to be more people living in this area which may mean pressures on existing services and amenities.</li> <li>▪ There is improved public open and greenspace.</li> <li>▪ Existing residents may also feel envy, anger and hostility to new people moving into nice new homes while they live in older ones.</li> <li>▪ This may lead to a sense of ‘us and them’ between existing residents in the area and new residents which may reduce the full positive benefits of the regeneration from materialising.</li> <li>▪ Regeneration may also increase house prices in the CWE and surrounding areas.</li> </ul>	<p>Existing and new CWE residents + / + / + + +</p> <p>Residents living around the CWE area ~ / +</p>
<i>Infectious diseases</i>	<ul style="list-style-type: none"> <li>▪ Levels of infectious disease are low and likely to remain so.</li> </ul>	~	<ul style="list-style-type: none"> <li>▪ The operation phase is unlikely to cause or spread infectious diseases to local residents or people working in the area.</li> </ul>	<p>Existing and new CWE residents and residents living around CWE area ~</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<p><i>Non-infectious/chronic diseases (including pollution effects)</i></p>	<ul style="list-style-type: none"> <li>▪ Levels of long term limiting illnesses are higher than the Stoke-on-Trent and national averages.</li> <li>▪ Rates of hospital admissions are higher for under 75 yr olds.</li> <li>▪ Rates of death from all causes are higher for under 75 year olds.</li> </ul>	<p>~</p>	<ul style="list-style-type: none"> <li>▪ The operation phase is unlikely to cause non-infectious/chronic diseases to local residents or people working in the area.</li> <li>▪ Increase in attractive and enhanced public open and green spaces including tree lined boulevards and public realm is likely to encourage physical activity and help reduce the rate of obesity.</li> <li>▪ Air pollution levels may be reduced due to potential improvements to traffic conditions through some of the proposed road linkages such as Commercial Road with Waterloo Street and Botteslow Street with Ivy House Road.</li> <li>▪ However, air pollution may also increase if there is a greater influx of cars with the new residents moving into the area. Though this is unlikely to lead to chronic illness or exacerbation of existing conditions.</li> </ul>	<p>Existing and new CWE residents +/&gt;+</p> <p>Residents living around the CWE area ~/&gt;+</p>
<p><i>Physical injury and poisoning</i></p>	<ul style="list-style-type: none"> <li>▪ Rates of road injuries are lower than the national average.</li> </ul>	<p>~</p>	<ul style="list-style-type: none"> <li>▪ The operation phase is unlikely to cause physical injury and poisoning in residents or people working in the area.</li> <li>▪ Influx of people into the area may cause a small potential increase in cars which may in turn increase the risk of road traffic related injuries however current levels of traffic injuries are low and are likely to continue being so.</li> </ul>	<p>Existing and new CWE residents ~/&gt;-</p> <p>Residents living around the CWE area ~</p>



Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Mental health and wellbeing</i>	<ul style="list-style-type: none"> <li>Number of people on incapacity benefits because of mental illness is significantly higher in Stoke-on-Trent than the national average and this could be a possible indication of low levels of mental health and wellbeing.</li> <li>One of the most deprived areas in Stoke-on-Trent and as such likely to affect levels of mental health and wellbeing.</li> </ul>	-/--	<ul style="list-style-type: none"> <li>The new residents who move into City Waterside East will gain newly built homes.</li> <li>Having what has been considered a 'not so nice' part of Stoke-on-Trent redeveloped is likely to enhance the self esteem of residents living in City Waterside East.</li> <li>The community facilities provided across the area will provide a wider range of activities for local residents.</li> <li>Existing residents may feel envy, anger and hostility to new people moving into nice new homes while they live in older ones.</li> </ul>	<p>Existing and new CWE residents + / + + / + + +</p> <p>Residents living around the CWE area ~ / +</p>
<i>Population profile</i>	<ul style="list-style-type: none"> <li>Hanley East and Joiners Square has a relatively young population with a greater proportion of residents aged 16-44 and 60 years and over.</li> </ul>	~	<ul style="list-style-type: none"> <li>Given the likely increase in housing there is likely to be an increase in the residential population and other services and amenities, such as the new and existing retail/community centre facilities and employment sites. This is likely to increase the day-time working population.</li> <li>This is likely to be a positive though depends on the kinds of new residents, who move into the area.</li> </ul>	<p>Existing and new CWE residents ~ / +</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Jobs &amp; economy</i>	<ul style="list-style-type: none"> <li>▪ Unemployment is higher than in Stoke-on-Trent and England and Wales as a whole.</li> <li>▪ Most residents are employed in less skilled/non professional jobs and the manufacturing sector.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>▪ The new community centre, local shops, café and existing employment sites, local retail and services will increase the potential number of employment opportunities and may enhance the local economy especially if local residents get priority for local jobs.</li> <li>▪ It may also help to increase the viability of existing shops by drawing more people to use the provisions in CWE.</li> </ul>	<p>Existing and new CWE residents and residents living around CWE area ~</p> <p>CWE and surrounding area residents looking for work +/&gt;+</p> <p>Existing small businesses and shops +/&gt;+</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Housing and shelter</i>	<ul style="list-style-type: none"> <li>▪ Most housing stock is of a poor quality.</li> <li>▪ Without redevelopment it is likely that the housing will continue to deteriorate.</li> </ul>	-/--	<ul style="list-style-type: none"> <li>▪ For new residents the new housing is likely to be of much better quality with better energy efficiency and insulation.</li> <li>▪ For remaining existing residents whose homes are not refurbished there is likely to be no effect.</li> <li>▪ There is provision for larger family housing and affordable housing.</li> </ul>	<p>Existing residents and residents living around CWE area</p> <p>~</p> <p>New CWE and existing residents who move to the new homes.</p> <p>++/+++</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<p><i>Transport and connectivity</i></p>	<ul style="list-style-type: none"> <li>▪ There are 19 bus routes that serve City Waterside East. However the network runs around the periphery of the masterplan area along Bucknall New Road, Botteslow Street and Leek Road.</li> <li>▪ Almost 51% of residents have no car.</li> <li>▪ 37% of the population travel less than 2km; 30% travel between 2 and 5km and 11% travel over 10km to work.</li> </ul>	<p>~</p>	<ul style="list-style-type: none"> <li>▪ Some road layouts will be changed to improve pedestrian access and access to community features such as the canal</li> <li>▪ Bucknall New Road will be widened to provide a bus lane and therefore public transport connectivity will be faster and improved.</li> <li>▪ New residential streets will be narrowed with pedestrian priority. This will provide a safer environment for outdoor activities.</li> </ul>	<p>Existing and new CWE residents ++/+++</p> <p>Residents living around the CWE area ~/+</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Education and learning</i>	<ul style="list-style-type: none"> <li>▪ A high proportion of residents have no qualifications.</li> <li>▪ However, GCSE levels are currently higher than in Stoke-on-Trent as a whole.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>▪ There will be no direct effect on St. Luke's Primary School however the improvement to the area and the influx of new residents may enhance children's self esteem and concentration.</li> </ul>	<p>Existing and New CWE residents and those living around the CWE area</p> <p>~</p> <p>For children and young people of school age and adults looking for education/ learning opportunities</p> <p>~/+</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Crime and safety</i>	<ul style="list-style-type: none"> <li>▪ Crime rates are proportionally higher than the rates in Stoke-on-Trent with nuisance/anti-social behaviour, violence crime and criminal damage being the top three crime issues.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>▪ There is unlikely to be any increase in crime during the operation phase.</li> <li>▪ Good design based on Secure by Design principles should reduce the potential for crime especially in new housing and other new buildings.</li> <li>▪ The reduction in vacant areas and increase in new housing and potentially new residents throughout CWE is likely to increase potential for natural surveillance.</li> </ul>	<p>Existing and new CWE residents ~/+</p> <p>Residents living around the CWE area ~</p>
<i>Health &amp; social care services</i>	<ul style="list-style-type: none"> <li>▪ There are no health and social care services based in City Waterside East area.</li> <li>▪ The nearest health centres are Moorcroft Medical Centre and Harley Street Medical Centre on the periphery of City Waterside East on Botteslow Street.</li> <li>▪ Stoke-on-Trent has a good/very good health and social care service overall.</li> </ul>	~	<ul style="list-style-type: none"> <li>▪ The potential increase in population that the regeneration could bring may place some additional pressures on the health centres available in areas surrounding CWE.</li> <li>▪ However given the good quality of services this is likely to be manageable.</li> </ul>	<p>Existing and New CWE residents and residents living around the CWE area ~/-</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<p><i>Shops and other retail amenities</i></p>	<ul style="list-style-type: none"> <li>▪ Local convenience shopping is found on Bucknall New Road and around Wellington Road</li> <li>▪ The main retail centre is Hanley Town Centre.</li> </ul>	<p>~</p>	<ul style="list-style-type: none"> <li>▪ New local shops and other retail amenities may be beneficial in providing residents with a wider range of produce, goods.</li> </ul>	<p>Existing and new CWE residents +</p> <p>Those who need to or want to shop locally ++</p> <p>Residents living around the CWE area ~</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Social capital and community cohesion</i>	<ul style="list-style-type: none"> <li>▪ City Waterside East is in the most deprived 20% of Lower Super Output Areas in England.</li> <li>▪ 68% of Hanley East and Joiner Square residents are satisfied with the area as a place to live.</li> <li>▪ 51% of Hanley East and Joiners Square residents feel strongly that they belong to their immediate neighbourhood.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>▪ How residents will interact with new residents and access the new amenities is likely to have a strong influence on whether social capital and community cohesion are enhanced by the regeneration.</li> <li>▪ The new community facility, green open space, new frontage over the canal and formal square with space for mooring canal boats are likely to bring residents and users of those spaces together.</li> <li>▪ Existing residents in the area may also feel envy, anger and hostility to new people moving into nice new homes while they live in older ones.</li> <li>▪ This may lead to a sense of 'us and them' between existing residents and new residents in City Waterside East. This may reduce the level of positive benefits obtained through the regeneration.</li> </ul>	<p>Existing and new CWE residents -/-/~+/++</p> <p>Residents living around the CWE area ~</p>
<i>Arts and leisure</i>	<ul style="list-style-type: none"> <li>▪ The Caldon Canal runs through the City Waterside East area.</li> <li>▪ Other arts and leisure activities are available in the areas surrounding City Waterside East.</li> </ul>	~	<ul style="list-style-type: none"> <li>▪ The area around the canal with the community facility, the new greenspace, footpath and local shops, will make that area an attractive feature and likely to draw people to use the services and amenities there.</li> </ul>	<p>Existing and new CWE residents +/&gt;+</p> <p>Residents living around the CWE area ~/&gt;+/&gt;+</p>



Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Lifestyle and daily routines</i>	<ul style="list-style-type: none"> <li>It is likely that there will be no change from existing trends.</li> </ul>	~	<ul style="list-style-type: none"> <li>There is unlikely to be any disruption of lifestyle and daily routine due to the operation phase.</li> <li>Physical activity may be encouraged through increased use of the attractive environment. The tree lined boulevards and the canal with surrounding public realm may create a relaxing atmosphere that may encourage cycling and walking.</li> <li>There will be a community centre and some new local shops.</li> <li>All these should enhance lifestyle and daily routine.</li> </ul>	<p>Existing and new CWE residents ++/+++</p> <p>Residents living around the CWE area ~/+</p>
<i>Energy and waste</i>	<ul style="list-style-type: none"> <li>Current energy generation and distribution and waste disposal methods will continue to be in place.</li> <li>Levels of waste composted are low however levels of waste used to recover heat and power is higher than the national average.</li> <li>There is a potential for a greater move towards energy efficiency and more recycling in the future.</li> </ul>	~	<ul style="list-style-type: none"> <li>This will depend on:</li> <li>The energy efficiency and sustainability built into the new housing, retail amenities, employment sites, the new health centre and public areas e.g. lighting.</li> <li>The provision of communal recycling facilities in the area.</li> </ul>	<p>Existing and new CWE residents -/-/+</p> <p>Residents living around the CWE area ~</p>

Short Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<i>Land and spatial</i>	<ul style="list-style-type: none"> <li>▪ Derelict buildings have reduced the visual appeal of the area.</li> <li>▪ Percentage of Stoke-on-Trent residents who think that parks and open spaces in their local area have got better or stayed the same is just under 73%.</li> <li>▪ 94% of the rivers in Stoke-on-Trent are assessed as having poor biological quality and 82% as having poor chemical quality.</li> <li>▪ About 56% of land and highways in Stoke-on-Trent have visible and unacceptable levels of flytipping, flyposting and graffiti.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>▪ The new design and layout is likely to be an improvement on what is there currently.</li> <li>▪ The design of the area, greenspace and overall visual appeal is likely to be enhanced.</li> </ul>	<p>Existing and new CWE residents + / ++</p> <p>Residents living around the CWE area ~</p>

## Long Term Operation Phase (5-15 years after the implementation phase)

Long Term Operation Phase	No development	Impact	City Waterside East Preferred Option and Masterplan	Direction, Magnitude and Likelihood of Impact without mitigation
<b>Overall</b>	<ul style="list-style-type: none"> <li>▪ No change from existing trends in health and wellbeing.</li> <li>▪ General health and wellbeing status is worse than the national averages with a high proportion of people with limiting long term illness.</li> <li>▪ Some of the housing stock in City Waterside East is of poor quality.</li> <li>▪ Without redevelopment it is likely that the housing in City Waterside East will continue to deteriorate.</li> </ul>	~/-	<ul style="list-style-type: none"> <li>▪ Investment in maintenance, renovation and renewal during the long term operation phase will be crucial to ensuring that the positive benefits of the regeneration are not lost.</li> </ul>	-/+ / ++





**EDINBURGH  
HEAD OFFICE**

Research Avenue North  
Riccarton  
Edinburgh, EH14 4AP  
United Kingdom  
Telephone: +44 (0)131 449 8000  
Facsimile: +44 (0)131 449 8084

**Email: [iom@iom-world.org](mailto:iom@iom-world.org)**

**LONDON  
CENTRE FOR HIA**

Research House Business Centre  
Fraser Road  
Perivale, Middlesex, UB6 7AQ  
United Kingdom  
Telephone: +44 (0)208 537 3494  
Facsimile: +44 (0)208 537 3493

**CHESTERFIELD**

Taptom Park Innovation Centre  
Brimington Road, Tapton  
Chesterfield, Derbyshire, S41 0TZ  
United Kingdom  
Telephone: +44 (0)1246 557866  
Facsimile: +44 (0)1246 551212

**STAFFORD**

Brookside Business Park  
Cold Meece  
Stone, Staffs, ST15 0RZ  
United Kingdom  
Telephone: +44 (0)1785 764810  
Facsimile: +44 (0)1785 764811