

Wirral Local Plan: Issues and Options Consultation

Interim Sustainability Appraisal Report:
Appraisal of spatial options

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Quality information

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1. Introduction

- 1.1.1 This document sets out interim findings in relation to the Sustainability Appraisal of the Wirral Local Plan. The findings are focused upon an appraisal of the options for the spatial strategy as set out in the issues and options consultation document.
- 1.1.2 These are high level findings, based upon a more detailed assessment of each option that is ongoing. Given that SA is an iterative process, the findings are subject to change in light of updated evidence, consultation findings and other new information. The purpose at this stage is to help inform the decision making process in relation to the spatial strategy.

2. Scoping

- 2.1.1 The Scoping Section of the SA process is used to establish the key issues that should be the focus of the appraisal, as well as the assessment methodologies. It involves a review of policies, plans and programmes and collection of information and data to establish an understanding of the baseline position.
- 2.1.2 This process results in the identification of key sustainability issues, which form the basis for focusing the SA on the most important factors. It also informs a series of sustainability objectives, which are used as a framework for appraising the effects of the Plan.
- 2.1.3 This information was gathered and presented in a Scoping Report, which was published in March 2019. This Report was consulted upon to gather feedback from stakeholders on the scoping outcomes and the information gathered.
- 2.1.4 Scoping (and SA more generally) is an iterative process, and so the scope of the SA will be updated as appropriate as the Plan progresses. At this stage, the following sustainability appraisal framework has been established and used as the basis for appraising the Plan and any reasonable alternatives as it is developed.

SA Objective	Supporting Questions
Air quality	<ul style="list-style-type: none"> • Seek to build on current air quality achievements by minimising air pollution more generally, such as through supporting or enabling the use of low emission technologies and encouraging sustainable modes of transport such as walking and cycling. • Locate and design development so that current and future residents will not regularly be exposed to poor air quality.
Biodiversity	<ul style="list-style-type: none"> • Minimise, and avoid where possible, impacts to biodiversity, both within and beyond designated and non-designated sites of international, national or local significance. • Achieve biodiversity net gain including through the long term enhancement and creation of well-connected, functional habitats that are resilient to the effects of climate change.
Climate change adaptation	<ul style="list-style-type: none"> • Adapt to current and future flood risk by directing development away from the areas of the Borough at the highest risk of flooding from all sources and provide sustainable management of current and future flood risk through sensitive and innovative planning, development layout and construction.
Climate change mitigation	<ul style="list-style-type: none"> • Continue to drive down CO2 emissions from all sources by achieving high standards of energy efficiency in new development, by providing attractive opportunities to travel by sustainable means and by protecting land suitable for renewable and low carbon energy generation, including community schemes.
Economy and employment	<ul style="list-style-type: none"> • Ensure that education and skills provision meets the needs of Wirral's existing and future labour market and improves life chances for all, including by enabling older people and people with physical and mental health conditions to stay in employment. • Support a strong, diverse and resilient economy that provides opportunities for all, enhances the vitality of the Borough's town and local centres including through the identification of further regeneration opportunities, particularly in the most deprived areas. This could include support for the social enterprise, voluntary and community sectors.
Health	<ul style="list-style-type: none"> • To improve the physical and mental health and wellbeing of Wirral residents and reduce health inequalities across the Borough and between local communities.
Heritage	<ul style="list-style-type: none"> • Protect, conserve and enhance heritage assets, including their setting and significance, and contribute to the maintenance and enhancement of historic character through design, layout and setting of new development.

SA Objective	Supporting Questions
Housing	<ul style="list-style-type: none"> • Support timely delivery of an appropriate mix of housing types and tenures, including a focus on maximising the potential from strategic brownfield opportunities, to ensure delivery of good quality, affordable and specialist housing that meets the needs of Wirral's residents, including older people, people with disabilities and families with children.
Land and soils	<ul style="list-style-type: none"> • Promote the efficient and sustainable use of natural resources, including supporting development which avoids the best and most versatile agricultural land and development which makes effective use of previously developed land.
Landscape	<ul style="list-style-type: none"> • Protect and enhance the character, quality and diversity of the Borough's landscapes and townscapes through appropriate design and layout of new development, including the preservation of important open gaps between settlements, mindful of the need to make careful choices about Green Belt release.
Population and communities	<ul style="list-style-type: none"> • Support good access to existing and planned community infrastructure, including green infrastructure, for new and existing residents, mindful of the potential for community needs to change over time. • Improve perceptions of safety and fear of crime and to help remove barriers to activities and reduce social isolation.
Transport	<ul style="list-style-type: none"> • Ensure that the provision of infrastructure is managed and delivered to meet local population and demographic change whilst helping to reduce congestion and travel times. This includes providing infrastructure that maximises accessibility for all and connects new housing developments to the public realm, including key services.
Water	<ul style="list-style-type: none"> • Promote sustainable forms of development which minimises pressure on water resources, water consumption and wastewater flows, including the use of innovative features and techniques where possible, to maintain and enhance water quality consistent with the aims of the Water Framework Directive.

3. Discussion of the options

3.1 Background

- 3.1.1 To inform the development of the Local Plan the Council is exploring a range of different ways in which it can achieve the objectives for the Plan. An important element of this process is to gather the views of stakeholders, particularly the communities that will be affected. To achieve this, an issues and options document has been prepared by the Council to seek views on the future direction of development for Wirral.
- 3.1.2 The Issues and Options document mostly deals with strategic matters, particularly spatial options for how the housing and employment needs of the borough can be met. The SA work undertaken at this stage has therefore focused upon these matters.
- 3.1.3 A range of other policy matters are discussed and proposed approaches are put forward. The SA does not consider reasonable alternative approaches to every policy matter though as they are considered non-strategic.

3.2 Summary of the strategic spatial options

- 3.2.1 For each of the options, the Council is seeking to meet identified housing needs, as calculated using the Government's standard methodology. This works out at approximately 12,000 homes in total over the plan period when an allowance for demolitions has been taken into account.
- 3.2.2 Any options that would not meet this target have been considered to be unreasonable by the Council.
- 3.2.3 A range of housing sites have been identified for each option with an assumption that these will come forward as part of the housing delivery target. There are also assumptions about committed sites, windfall and conversions, and the amount of growth that would be delivered at Wirral Waters (4000 dwellings over the plan period). These are constant elements of each of the options. The differences relate to where 'residual' housing needs would be met.
- 3.2.4 With regards to employment growth, the strategy is presumed to be broadly the same for each of the spatial options. The sites proposed for development at this stage have been identified as attractive and reasonable locations for growth. This is based upon the findings of employment land evidence.
- 3.2.5 **Appendix A** illustrates each of the following spatial options in map form.
Option 1A: Urban Intensification
- 3.2.6 The option for Urban Intensification plans for all the Borough's development needs to be met within the existing urban areas, by developing urban sites and by increasing densities across all the settlements in Wirral. This is reasonable alternative as it allows for the release of Green Belt land to be avoided.

- 3.2.7 The principle element of this option is the reliance upon deliverable and developable sites within the urban area as identified from the SHLAA. To meet needs in full though there would be a need for intensification and rationalisation of certain sites. Intensification would provide for more than 12,000 homes should all sites be brought forward, whilst additional housing sites would provide a further 2,174 dwellings.
- 3.2.8 Option 1A could therefore deliver up to 14,841 dwellings should all the potential sources of supply be brought forward successfully.

Option 1B: Urban Intensification (stepped approach)

- 3.2.9 This is a variation of Option 1A, but would involve a lower rate of growth in the first five years and higher growth in the latter years of the Plan period. The overall amount of growth delivered would still be the same though and would be distributed in the same way. The difference is one of phasing / timing.

Green Belt Release

- 3.2.10 The Council has identified urban intensification as its preferred option at this stage as there is an aspiration to achieve regeneration and avoid the unnecessary release of Green Belt land. There is therefore an assumption that all deliverable sites in the SHLAA will form a part of any option.
- 3.2.11 However, there is a recognition that certain sites in the urban area have deliverability questions that could mean they don't come forward within the Plan period. Should multiple sites remain in this category, then there could be a shortfall in housing provision over the Plan period.
- 3.2.12 In a worst case scenario, if additional housing sites are not found to be deliverable in the Plan period, then there could be a shortfall of up to 2,500 homes across the Borough. Whilst the Council does not envisage that this situation will arise (to such an extent), it is considered necessary to explore the implications of Green Belt release as a contingency approach. As such, several approaches to Green Belt release have been identified as reasonable alternatives.
- 3.2.13 As a starting point, several parameters have been set to focus the options in the Green Belt. Sites falling entirely within flood zone 3 or with a statutory environmental designation (such as a SSSI) have been excluded.
- 3.2.14 Next, only weakly performing Green Belt parcels have been identified as potential development locations, with priority given to those with a developer or landowner interest.
- 3.2.15 After applying these 'filters' two main patterns of development present themselves. These are summarised below.
- 3.2.16 The option of a single new large settlement has been discounted because of the existing geography of Wirral, the configuration of the existing urban area, the

pattern of strongly, moderately and weakly performing parcels, the scale of the development likely to be required and the absence of an obviously sustainable location, with access by a wide choice of sustainable transport.

- 3.2.17 A hybrid option in which one or more parts of each option could be selected may also be appropriate depending on the final amount of new development that needs to be accommodated. However, this is something that will be considered in greater detail at the next stage of plan making.

Option 2A: Dispersed Green Belt release

- 3.2.18 This option proposes the release of a series of small to medium sized areas of land, which when added together would allow sufficient land to be allocated to meet any residual housing needs within the Plan period.
- 3.2.19 There is a range of sites / broad locations that could be released from the Green Belt to meet residual housing needs under this option. The Council has identified a list of sites that it considers to be most appropriate at this stage given current knowledge of deliverability and other site factors. However, a wider pool of sites could be considered should there be a need to release additional sites.
- 3.2.20 The SA (and plan – making) are iterative processes, and therefore the options appraisal findings have evolved as the options have been tweaked and finalised. For this reason, the appraisal of Option 2A and in the SA makes reference to a wider range of Green Belt parcels than those identified in the Issues and Options consultation document. As the parcels were ‘shortlisted’ and the final Option 2A was established, the SA findings were updated, but the initial discussion of the wider pool of Green Belt parcels was retained for completeness and context.
- 3.2.21 Appendix A illustrates the location of the sites involved under this approach, with an assumption that all of these would be necessary to come forward should there be a shortfall of 2500 dwellings from the urban area supply.

Option 2B: Urban expansion

- 3.2.22 The alternative option to dispersed release is to focus development more strategically into a single larger area around an existing settlement. This option still relies on the weakly performing Green Belt areas but groups these together to identify a larger area for urban expansion.
- 3.2.23 The Council initially identified two areas that could potentially be suitable. The first was on land west of Barnston Road, Heswall. The second was land to the south and west of Eastham. The SA explored the effects associated with both of these approaches (i.e. Heswall and Eastham/Bromborough). Though the Council subsequently determined that the Eastham extension was not a reasonable alternative (due to deliverability issues), the SA findings have been retained for completeness and as a comparator.

3.2.24 **Appendix A** illustrates the parcels of land that are presumed to be involved under each of these approaches.

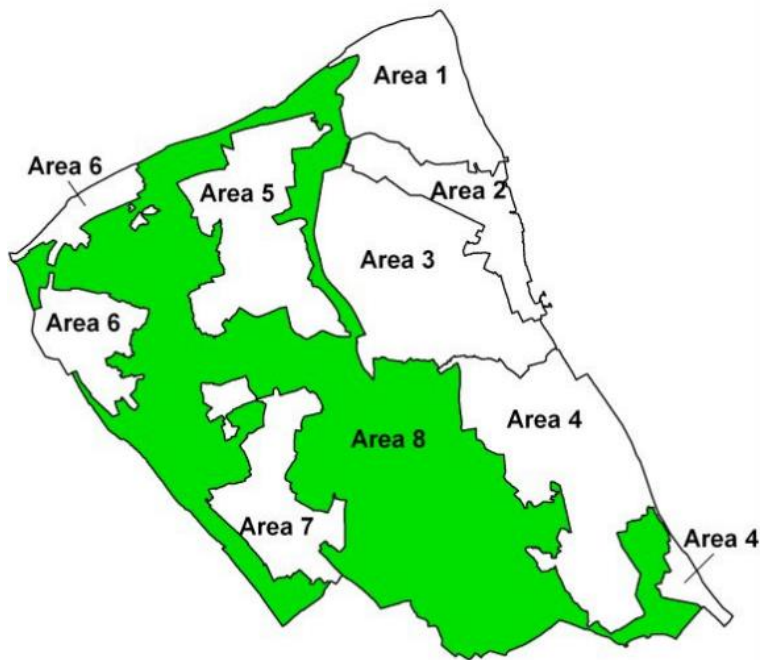
3.3 Duty to Co-operate considerations

- 3.3.1 The Council during its Local Plan process has been actively participating with the other six Liverpool City Region (LCR) authorities of Halton, Knowsley, Liverpool, St Helens, Sefton and West Lancashire in plan-making activities. The duty to co-operate requires local planning authorities to co-operate with other Councils and bodies to address strategic cross-boundary issues when preparing local plans. Therefore there is a potential possibility that some development requirements (economic or housing) could be met outside the Wirral in adjoining authorities. Growth which could not be met within the current urban area of the Wirral could potentially be provided in adjacent authorities.
- 3.3.2 A Statement of Common Ground has been prepared, and within this the LCR authorities agree that there is no unmet housing need to be redistributed among or beyond the seven local authorities during current local plan periods. Therefore, at this stage, it is considered unnecessary for Wirral to explore strategies whereby housing needs from other authorities would be met in Wirral (and vice versa).
- 3.3.3 The LCR authorities will keep this issue under review as the individual councils prepare updated development plans. Where local authorities' local plan evidence indicates that they will not be able to accommodate their entire OAN, the processes for agreeing the distribution of this unmet need will be set out in future updates of this statement".
- 3.3.4 The emerging Liverpool City Region Spatial Development Strategy will also be an important vehicle for addressing such issues.
- 3.3.5 Wirral Council is also engaging separately with Cheshire West and Chester Council which bounds Wirral to the south and a separate Statement of Common Ground will need to be prepared and agreed with them. Initial indications are that Cheshire West and Chester would not be able to accommodate any of Wirral's housing needs as this would require the release of Green Belt.

4. Appraisal methods

- 4.1.1 The appraisal of the spatial options identifies and evaluates 'likely significant effects' in relation to the baseline position. This draws on the sustainability topics/objectives identified through scoping as a methodological framework.
- 4.1.2 It is important to note that effects are predicted taking account of the effect characteristics and 'significance criteria' presented within Schedules 1 and 2 of the SEA Regulations. So, for example, account is taken of the probability, duration, frequency and reversibility of effects as far as possible. Cumulative effects are also considered, i.e. the potential for the options to impact an aspect of the baseline when implemented alongside other plans, programmes and projects.
- 4.1.3 Every effort is made to predict effects accurately; however, this is somewhat challenging given the strategic nature of the options under consideration and understanding of the future baseline. Given uncertainties there is a need to make assumptions, e.g. in relation to plan implementation and aspects of the baseline that might be impacted.
- 4.1.4 Assumptions are made cautiously and explained within the text (with the aim to strike a balance between comprehensiveness and conciseness/ accessibility). In some instances, given reasonable assumptions, it is not possible to predict 'significant effects', but it is nonetheless possible and helpful to comment on merits (or otherwise) of the options in more general terms.
- 4.1.5 The appraisals have been undertaken primarily using professional opinion informed by quantitative information, site visits, and technical studies.
- 4.1.6 The appraisals are structured on the basis of 8 existing settlement areas identified in Wirral as follows:

- Settlement Area 1: Wallasey
- Settlement Area 2: Commercial Core
- Settlement Area 3: Suburban Birkenhead
- Settlement Area 4: Bromborough and Eastham
- Settlement Area 5: Mid Wirral
- Settlement Area 6: Hoylake and West Kirby
- Settlement Area 7: Heswall
- Settlement Area 8: Rural areas



4.1.7 The appraisal highlights the potential effects at each of these settlement areas to demonstrate how the effects might differ across the Borough for different areas. An overall conclusion is then drawn which considers the effects for the Borough as a whole. **Appendix B** sets out the full appraisal of each option against the SA Framework. Section 5 presents the overall effects for each option against each SA Objective.

5. Summary of appraisal findings

- 5.1.1 This section presents a summary of the appraisal findings in relation to the spatial options against each of the SA Objectives. These findings are derived from a more detailed appraisal of the options which considers the effects of each option in specific locations across the Borough and then in combination / as a whole (see **Appendix B**).

5.2 Air Quality

- 5.2.1 There are no AQMAs in the Borough, but annual monitoring reveals several locations where air quality has exceeded targets for maximum nitrogen dioxide emissions. Development that could worsen emissions in these areas or expose people to poor air quality should therefore be avoided if possible. Conversely, strategies that promote sustainable modes of travel ought to be supported.
- 5.2.2 All three options involve employment growth in broadly the same locations, with substantial development land identified near Port Sunlight / Bromborough and also in locations complementing Wirral Waters. These will therefore be likely to act as major attractors of car trips (with potential negative effects in terms of air quality). The extent to which trips are likely to take place along routes which already suffer from poor air quality, and the number of trips being made by car rather than sustainable modes will determine the effects for each option.
- 5.2.3 **Option 1A/1B** involve growth in the urban areas within the Borough, with most new residential development identified in the Commercial Core. Development in this location will have very good access to employment opportunities, which would reduce the need to travel to access such opportunities. There are also good public transport links which could mean that additional growth is able to access employment opportunities and other services further afield such as in Liverpool and at Port Sunlight / Bromborough. It is still likely that car trips will be generated though, and this could involve traffic along routes that have been highlighted as being of concern in terms of nitrogen dioxide emissions (for example along the New Ferry Bypass), and the A552. However, the length and number of trips that would need to be made under this option ought to be reduced by virtue of the good connections to services that are available in proposed development locations.
- 5.2.4 Additional residential sites are located in Mid-Wirral and at West Kirby in particular. These areas are less well-located and may lead to an increase in car trips. However, there are local services and some local job opportunities that could help to limit car travel.
- 5.2.5 Overall, **Options 1A/1B** involve urban focused development that should ensure that growth does not lead to notable increases in emissions from traffic in most locations. Though there is substantial growth proposed in areas that experience poorer levels of air quality, there is a good connection between employment and housing opportunities and this should help to promote sustainable modes of travel. Overall, **minor positive effects** are predicted in this respect as air quality ought to improve in the main.

- 5.2.6 However, some locations could experience **minor negative effects** as growth will be drawn to proposed employment locations, which are mostly concentrated in the built up areas of Birkenhead that are more vulnerable to poor air quality.
- 5.2.7 **Option 2A** would involve release of on weakly performing Green Belt parcels at dispersed locations across the Borough. This would involve locations that are less well related to employment opportunities, and are likely to be reliant on car trips. Though this could increase emissions along routes toward key employment and retail areas, the implications are unlikely to be significant given the dispersed nature of growth. As such, **minor negative effects** are predicted.
- 5.2.8 **Option 2B** involves focused growth in a single urban extension. An extension at Heswall would likely involve substantial car trips toward employment opportunities at Port Sunlight and Wirral Waters, which could cause a worsening of air quality along key routes (For example the A552). With this approach though, the majority of new development would be located in an area with low levels of ambient air pollution (which is beneficial in this respect). There is also a train station which could potentially help to offset trips. Overall, **minor negative effects** are predicted.
- 5.2.9 Urban expansion of Eastham (not pursued under the Council's final **Option 2B**) would also be likely to generate substantial car trips, but is well located in regard to employment opportunities. This means that trips would be shorter for some residents, and potentially offers greater ability to use non-car modes of travel. There is also a train station nearby to access locations further afield. Nevertheless, **minor negative effects** are predicted, as car trips are likely to be generated along routes where air quality is being monitored and has been close to exceedance targets.

5.3 Biodiversity

- 5.3.1 Wirral is unique in comparison to other localities as it has significant biodiversity designations in both coastal and non – coastal environments. It is important to ensure development which happens on the land, does not adversely affect the surrounding coastal environments.
- 5.3.2 In saying this there are currently no Marine Conservation Zones (MCZ) or National Nature Reserves (NNRs) within the locality. The SSSI's on the land are found within Settlement Areas 4, 7 and 8. The other settlement areas have significant biodiversity designations surrounding the coastline.
- 5.3.3 There are common elements to each of the spatial options that are likely to generate negative effects with regards to the biodiversity.
- 5.3.4 Of particular note is that the majority of the employment sites are located in waterside locations, along the River Mersey and Liverpool Bay. The majority of these sites are close to a number of biodiversity assets and are at risk of having negative effects upon these assets along with species natural habitats. Though development will be required to avoid and mitigate effects and ultimately achieve net gain, the potential for negative effects does exist.

- 5.3.5 Each option performs differently in relation to impacts upon local settlement areas across the borough, how new development can bring forward local benefits to the green infrastructure and local species

Option 1A promotes urban intensification, by developing urban sites and by increasing densities across all the settlements in Wirral. The locations that option 1A focuses on are a mix of urban and waterside locations that fall within the impacts zones for the River Mersey SSSI, SOA and SCA, along with sites in the Liverpool Bay impact zones. The majority of sites are brownfield, most of which are thought to have limited value, but others that may be rich in species and natural habitats where natural regeneration has occurred. It is anticipated that permanent effects on biodiversity should be avoidable, but it will be important to manage disturbance and pollution that could affect waterside environments in particular. This leaves a question mark over the potential for **negative effects**.

- 5.3.6 In terms of functionally-linked land, the HRA concludes that the urban housing sites are likely to offer limited value, and so **neutral effects** in this respect are predicted.

- 5.3.7 The majority of the remaining housing sites are small – medium in scale and dispersed throughout the borough, which is likely to minimise the opportunities to enhance and connect the green infrastructure network through onsite improvements alone. In this respect, only **minor positive effects** are predicted and are likely to occur in the longer term.

- 5.3.8 Larger site options may be able to deliver some strategic green infrastructure improvements, which can help with wildlife and biodiversity enhancement. This could be particularly beneficial for more built-up areas such as Birkenhead and Wirral Waters.

- 5.3.9 **Option 1B** would have the same effects as Option 1A, but these would occur mostly in the longer-term. Biodiversity value may have increased on some urban in the longer term due to natural regeneration. Therefore, the potential for negative effects could potentially rise slightly, but there is uncertainty.

- 5.3.10 **Options 2A and 2B** are less negative with regards to growth impacting on biodiversity in waterside locations (due to a lower scale of growth in the urban areas). However, a degree of growth will still occur in such areas, and there are other locally important habitats present across the Borough that overlap with weak performing Green Belt parcels. For some parcels, a loss of greenfield land could also have potentially significant negative effects in terms of being functionally linked to the SPA / SAC sites. Both Green Belt approaches involve land that could provide this function.

For **Option 2A** additional effects on local wildlife would depend upon the exact sites involved in a dispersed approach. However, the majority of identified parcels that could be involved do not overlap significantly with designated or biodiversity action plan habitats. The most likely issues with this option will relate to disturbance to adjacent habitats, and ensuring that net gain is achieved. Given that the developments are strategic in nature, this ought to be possible.

However, a loss of potential functionally linked land will mean that offsite compensation may also need to be secured.

- 5.3.11 Taking the above factors into account, **minor** to **significant positive effects** are predicted overall for **Option 2A** to reflect the potential to improve ecological value on green belt sites across a number of locations across the borough (not just one such as the urban extensions). However, their use to support Ramsar / SPA / SAC species constitutes potentially **significant negative effects**. The choice of sites ought to provide some flexibility in avoiding the most sensitive locations and making the best out of opportunities for enhancement.
- 5.3.12 Development at an urban extension to Eastham would overlap substantially with some of the boroughs BAPs and ancient woodland. This presents the potential for negative effects upon these biodiversity assets, but given the large scale strategic nature of the site, it is possible that mitigation and enhancement could be secured. There is a question mark relating to this though, which reflects as **minor negative effects**. The potential for the land to be useful as functionally linked habitat is less likely in this location though, and so the effects are predicted to be **neutral** in this respect. In the longer term it ought to be possible to secure net gain / enhancement given the nature of the site and so **minor positive effects** are predicted.
- 5.3.13 A development east of Heswall (**Option 2B**) overlaps less dramatically with BAP habitat, and therefore, enhancement is more likely to be achieved. For example, by reducing the developable land on the site and including green spaces and woodland retention on the sites, which could bring forward benefits for local habitats and species. However, a loss of potential functionally linked land will mean that avoidance, mitigation and offsite compensation may also need to be secured.
- 5.3.14 Taking the above factors into account, **minor positive effects** are predicted for **Option 2B** to reflect the potential to improve ecological value on green belt sites in this part of the borough. However, the use of such land to support Ramsar / SPA / SAC species constitutes potentially **significant negative effects** in this location.
- 5.3.15 It should be noted that for each option, the potential for enhancement is mentioned. However, this has not been factored fully into the assessment, as there are no details at this stage as to what would be involved, and whether this would be achievable. This does not mean that significant or minor negative effects are a certainty though, as it is acknowledged several site options fall into areas that have been identified as green infrastructure enhancement areas.
- 5.3.16 All three options would also present potential **significant negative effects** associated with employment growth along the Mersey Estuary coastline.

5.4 Climate Change Adaptation

5.4.1 **Options 1A / 1B** involve dispersed growth in the urban areas on mostly brownfield land. In this respect, new development is unlikely to substantially alter drainage patterns, as it will not result in wholesale changes in the amount of hardstanding. The majority of sites identified for residential development are within flood zone 1, and so neutral effects are predicted in the main. However, some important sites fall within flood zones 2 and 3 and/or are affected by surface water flooding:

- SHLAA 2068 in Moreton is proposed for housing, and is entirely within flood zone 2 and 3. There is also associated employment uses in this location, but this may be an appropriate use.
- SHLAA 0752 overlaps with significant areas of flood zone 2 and 3.
- Site 4078 is heavily affected by surface water flooding.

5.4.2 These sites will place residents at risk of flooding, and therefore significant negative effects are possible in these locations. Mitigation measures would clearly need to be secured to ensure that development is appropriate.

5.4.3 Overall, minor negative effects are predicted with regards to flooding. The majority of new development would be in areas that are not at risk of flooding and would not increase flood risk elsewhere. However, there are some important exceptions where significant flood risk exists.

5.4.4 Development throughout the urban areas should present an opportunity to introduce urban greening measures, which can help with climate change resilience for wildlife and human health. This could be particularly beneficial for more built up areas such as Birkenhead and Wirral Waters, in terms of helping to reduce a potential heat island effect. However, these benefits would be reliant upon such measures being incorporated into new development. Given the lack of space and the intensification involved in the urban areas, it is unclear the extent to which urban greening will be achieved. Therefore, uncertain **minor positive effects** are predicted.

5.4.5 **Option 2A** involves dispersed growth on greenfield land. A range of potential sites are identified, with some exhibiting limited risk of flooding, whilst others are intersected by watercourses and therefore parts of the sites fall within flood zone 2 and 3. There are areas of surface water flooding concern on each of the sites also to differing extents. The scale of the sites should mean that where flooding is an issue, it is possible to avoid such areas. There should also be good opportunities to design developments that mimic natural drainage patterns and ensure no net increase in run-off. Consequently, a **neutral effect** is predicted overall for this option.

5.4.6 **Option 2B** will have similar effects to Option 2A. The potential urban extension to Heswall is at risk of flooding from Prenton Brook, as well as there being pockets of surface water flood risk throughout the site. The strategic nature of development should allow for these areas to be avoided though and for SUDs to

be incorporated that ensure no net increase in surface water run-off or flooding. Consequently, a **neutral effect** is predicted overall for this option.

- 5.4.7 An urban extension at Eastham exhibits similar characteristics, and therefore the effects would be the same.
- 5.4.8 For both Green Belt approaches, a loss of greenfield land could reduce the ecosystem services associated with natural and semi natural land (such as food management, reduction in urban heating, ecological corridors. Therefore, in terms of wider resilience to climate change, the effects are possibly negative. However, this depends upon the extent of enhancement measures that are secured though and whether net gain is actually achieved. **Neutral effects** are predicted at this stage.

5.5 Climate Change mitigation

- 5.5.1 The ability to deliver resource efficient and resilient developments ought not to be dependent upon location to a great extent. Therefore, the distribution of homes should have the same effects on emissions from the built environment regardless of location. Development in any location should also provide opportunities to introduce resilience measures such as green infrastructure, green roofs and SUDs. An important factor in achieving sustainable design is the viability of development, as this could make reductions in emissions harder to achieve. Therefore, site options with some constraints could be less likely to lead to lower carbon development. In this respect, Option 1A, which involves a lot of brownfield sites (with possible viability issues) could be less likely to achieve higher emissions reductions. Likewise, options that rely upon substantial infrastructure upgrades to be funded through development (such as Option 2B and an 'urban expansion to Eastham') may also be constrained in this respect.
- 5.5.2 Location can however, lead to differences in the amount of emissions from transport, and certain locations or types of sites (larger mixed-use with demands for heat) may also be more likely to support decentralised energy schemes. These factors are discussed below with regards to each option. The effects have not been broken down in terms of the settlement areas, as impacts in one area could offset those in another. Therefore, it is more appropriate to discuss the overall implications at a borough level for each option with regards to emissions and resilience. It should also be acknowledged though that the impacts within the Borough are interlinked with those in surrounding areas, as climate change is a cross boundary issue.
- 5.5.3 **Option 1A** promotes urban intensification, by developing urban sites and by increasing densities across all the settlements in Wirral. The locations that option 1A focuses on have good access to jobs, services and public transport. Therefore, new development should be less likely to generate long car trips (and associated emissions). This option would also limit further growth in less accessible locations. Whilst there is no solid evidence to support decentralised energy schemes, the scale of some site options in the commercial Core and Birkenhead, and the higher heat demand in the urban area could make these locations more suitable for such schemes.

- 5.5.4 Larger site options may also be more appropriate for delivering strategic green infrastructure improvements, which can help with climate change resilience for wildlife and human health. This could be particularly beneficial for more built up areas such as Birkenhead and Wirral Waters, in terms of helping to reduce a potential heat island effect. Consequently, a **minor positive effect** is predicted overall for Option 1A in terms of carbon emissions and adaptation.
- 5.5.5 **Option 1B** would still provide for all the Borough's new development to be accommodated within the urban area, in line with Option 1A but could allow the development required to be provided at a lower rate through the early years of the plan period, followed by a higher rate during the later years. Given that the efficiency requirements for new development will increase in the longer term, this ought to mean that the carbon emissions for this approach would be lower over the plan period compared to option 1a.
- 5.5.6 **Option 2A** proposes the release of a series of medium to large sized areas of land, which when added together would allow sufficient land to be allocated to meet any residual housing needs within the Plan period.
- 5.5.7 Depending upon the viability of individual sites, their greenfield nature could possibly present good opportunities to achieve higher standards of efficiency (through higher land values). However, this is an uncertainty. The peripheral nature of the site options is more likely to encourage car trips though, which would lead to a continuation or worsening of current trends with relation to emissions from transport.
- 5.5.8 The overall picture in terms of emissions is therefore likely to be **neutral** or **minor negative effects**.
- 5.5.9 A loss of greenfield land will also reduce the ecosystem services associated with natural and semi natural land (such as food management, reduction in urban heating, ecological corridors). Therefore, in terms of resilience, the effects are possibly negative. This depends upon the extent of enhancement measures that are secured though and whether net gain is actually achieved.
- 5.5.10 The alternative option to dispersed release (**Option 2B**) is to focus development more strategically into a single larger area around an existing settlement. This option still relies on the weakly performing Green Belt areas but groups these together to identify a larger area for urban expansion. An extension at Heswall (Option 2B) is thought to be more feasible than one at Eastham.
- 5.5.11 A large development at Heswall (Option 2B) would be at the urban fringe. It is therefore likely to generate car trips, as it would allow relatively good access to the strategic road network. The majority of jobs growth is to the east of the Borough, and so in this respect, the length of trips (and associated emissions) would be expected to increase. The presence of a train station nearby would help to offset this somewhat, but the services are not particularly regular or quick. In terms of local services and facilities, a new well-planned extension should help to provide local access, which can encourage walking and cycling.

5.5.12 This too ought to offset an increase in emissions from car based travel. There are no identified options with regards to district heating, though in theory a large scale mixed use development ought to provide better opportunities for such schemes. Overall, a **neutral effect** is predicted. Whilst there may be some reductions in travel due to the provision of local facilities and the presence of a train station nearby, it is also likely that car emissions will continue to be important. It is uncertain whether higher standards of resource efficiency would be achieved, but the requirement for new roads and other social infrastructure to support a comprehensive development would make this less likely. Therefore, at this stage, uncertain effects are predicted in this respect.

5.6 Economy and Employment

5.6.1 There are common elements to each of the spatial options that are likely to generate positive effects with regards to the economy and employment.

5.6.2 Of particular note is that the majority of employment land is proposed along Wirral Waters and surrounding areas and along the River Mersey at Port Sunlight / Bromborough and Eastham. These are high quality employment opportunities that are accessible to the most deprived parts of the Borough and tie-in with the wider regeneration ambitions for the Borough and the wider Liverpool sub-region. In this respect, positive effects are likely to be generated for each option with regards to economic growth, investment and employment.

5.6.3 However, each option performs differently in relation to impacts upon local centres across the borough, how housing is related to new and existing jobs, and how the options could help to address deprivation.

5.6.4 **Options 1A and 1B** promote a lot of housing growth in urban areas that are in need of regeneration and are suffering from high levels of deprivation. In this respect, the benefits of new affordable homes and associated infrastructure improvements would be most likely to help address inequalities. These options promote most housing growth the east of the borough and it is therefore accessible to job opportunities and public transport. Growth is managed in the more affluent areas to the west, which helps to support this regeneration-led approach. In this respect, Options 1A and 1B are predicted to have **significant positive effects**.

5.6.5 One area where Option 1A/1B could generate negative effects though is a reliance on employment land to deliver housing growth on some sites. If suitable replacements are not provided, this could lead to **minor negative effects** in terms of employment land availability in certain areas. This is unlikely to be a major stumbling block though, especially if a hybrid option was established involving limited greenbelt release should a residual need arise.

5.6.6 **Options 2A, 2B** and urban expansion to Eastham are less positive with regards to tackling regeneration. Firstly, growth is at the periphery of settlement areas, which is less accessible to jobs generally speaking. Furthermore, growth would be drawn away from the east of the borough in the urban areas and would be placed in more affluent locations such as Heswall and West Kirby.

- 5.6.7 Whilst this has some benefit in terms of local job provision and local spending it is much less likely to address inequalities. Therefore, only **neutral** or **minor positive effects** would be generated in this respect.
- 5.6.8 These two options would also be more likely to lead to increased commuting, which is considered a **minor negative effect** in terms of creating an efficient modern economy.

5.7 Health

- 5.7.1 In making predictions about the potential impacts of each option, it is assumed that development in modest amounts could be accommodated at existing GP services, or that improvements could be secured through contributions. However, this will depend upon planning from healthcare commissioners and the extent of development.
- 5.7.2 **Options 1A and 1B** propose a large amount of growth in areas that are experiencing health deprivation such as within Birkenhead in particular. This should have benefits with regards to the provision of affordable homes, the improvement of the public realm, and in terms of being accessible to healthcare facilities. Without upgrades to healthcare services, there could be negative implications on existing facilities (in terms of longer waiting times etc). However, with planned upgrades and possibly new facilities in the longer term the effects ought to be positive by concentrating investment into areas of need. In this respect, Option 1B performs slightly better than Option 1A as growth in the short term would be lower (giving more time to implement infrastructure improvements prior to the bulk of growth).
- 5.7.3 In terms of open space and recreation, this option will place new homes within walkable communities in the main, which is positive in terms of active travel. There would be limited loss of greenspace associated with this option, and access to urban leisure and recreation facilities would be good. However, the potential to implement open space improvements might be limited given the need for intensification of built development. Furthermore, access to open countryside / greenspace would not be ideal within the more-dense urban areas. On balance, a **minor positive effect** is predicted.
- 5.7.4 It is unclear the extent to which new development will lead to improvements to communities, but a proactive approach could potentially lead to significant positive effects. Conversely, a non-inclusive approach to growth could exacerbate inequality, which is **potentially negative (but minor)**. There is some uncertainty in this respect.
- 5.7.5 There is an assumption that larger scale focused development in any particular location could support entirely new facilities. This applies to certain aspects of the greenbelt release options.
- 5.7.6 **Option 2A** would involve dispersed growth in peripheral locations. Broadly speaking, access to healthcare facilities is not ideal given the urban fringe

location of developments. The scale of growth may also not be quite large enough at certain sites to support new facilities (though improvements to existing facilities would be presumed). In this respect, neutral effects are recorded in terms of accessibility. Most of the locations involved exhibit fairly low levels of deprivation (both multiple deprivation and specifically in the health domain). This is the case in Heswall, West Kirby and Greasby where the potential greenbelt release sites are located.

- 5.7.7 Though there are pockets of health (and multiple) deprivation towards Bebington, they are also not in the 0-20% categories. A lot of these surrounding areas are also within areas of low deprivation. If growth in the Green Belt locations is at the expense of investment in areas of need, this could potentially be negative. Consequently, this approach is likely to be limited in its ability to address health inequalities. Therefore, **neutral** or **potentially minor negative effects** are predicted in this respect.
- 5.7.8 **Option 2B** and urban expansion to Eastham both focus the majority of residual development in one single location. At either of these locations the amount of growth could support new satellite health facilities, which would be beneficial should these be brought forward as part of developments. Not only would this ensure walkable access to facilities for new communities, but it could also benefit existing surrounding communities (though most of these are not particularly deprived in terms of health or more broadly).
- 5.7.9 There should also be good access to other facilities as these are likely to be incorporated into new development such as primary schools, local shops and open space. Given their location in the countryside and the ability to introduce green infrastructure, it is also likely that new communities will have good access to green space and recreation. This doesn't do much to benefit existing communities in areas of need though, and should it draw investment away from areas of need then it could have negative implications. Therefore, this option is less likely to address inequalities compared to Option 1A / 1B. For this reason only **minor positive effects** are predicted and **minor negative effects** are also recorded.

5.8 Heritage

- 5.8.1 **Options 1A / 1B** involve a range of housing sites in the urban areas of the main settlements across the Borough. In some locations, there are limited sensitivities and the sites involved are poor quality. Therefore **neutral effects** are predicted. This applies to most of the development proposed in Heswall (Settlement Area 7), the rural areas (Settlement Area 8), mid Wirral (Settlement Area 6) and Sub-Urban Birkenhead (Settlement Area 5). At West Kirby and Bromborough, there are some local features that could be affected by development, but mitigation ought to ensure that the residual effects are **neutral** too (or potentially positive).
- 5.8.2 In other locations, development is proposed that is close to conservation areas and / or listed buildings. For example, in Wallasey (Settlement Area 1) several sites are identified for intensification which are adjacent to listed buildings (i.e. Wallasey Town Hall). However, the existing site conditions / character of the existing buildings is poor and development is most likely to lead to improvements rather than negative effects.

- 5.8.3 This is also the case in Bebington at the edge of Port Sunlight Conservation Area, where improvements measures ought to help enhance the setting of listed buildings. **Minor to significant positive effects** are predicted to reflect these factors.
- 5.8.4 The key area where effects are likely is the Commercial Core (Settlement Area 2). There are several large sites proposed in areas that contain multiple listed buildings and overlap with Conservation Areas. Of particular importance are the sites along the River Mersey which form a backdrop to Liverpool and contain listed assets. In this wider area there are also a number of listed buildings.
- 5.8.5 Effects are potentially negative or positive but this is dependent upon design and layout. If buildings are lost or damaged by development, these could be **significant negative effects**. Likewise, development along the River Mersey could negatively affect the character of a prominent listed asset. However, sensitive development could help to better preserve listed buildings and enhance the setting and character of the area should development be sensitively designed. This would be a **significant positive effect**. Given the regeneration-focused approach being promoted by the Plan, it is considered more likely that positive rather than negative effects will be generated, but there is uncertainty at this stage.
- 5.8.6 **Option 2A** is more likely to have effects on heritage features that rely upon open countryside. This is because dispersed growth in the Green Belt would involve a loss of open space, which in some locations would be likely to erode the character of small villages and affect the setting of heritage assets. However, there ought to be sufficient flexibility in the choice of sites to ensure that the most sensitive areas can be avoided. The more sensitive locations under this option involve parcels of land at Bromborough and Eastham Settlement Area.
- 5.8.7 Development of some of these could lead to significant negative effects. However, at the lower levels of growth involved, there remains flexibility to ensure that such effects are avoided. Therefore, only **minor negative effects** are predicted for Option 2A overall.
- 5.8.8 **Option 2B** would have different effects depending upon which urban extension is involved. Common to both approaches though, there would be limited growth in other parts of the borough, and so the effects would be very localised.
- 5.8.9 A single urban extension to the east of Heswall is predicted to have minor negative effects. The scale of the site would substantially alter the rural settling of the countryside between the existing urban area of Heswall and the small village of Barnston (which is designated as a Conservation Area). There is a Grade II listed Christ Church at the edge of the settlement and stone boundary walls along the edge of the proposed urban extension site. Development has the potential to alter the setting of both the church, and the edge of the Conservation Area. Retention of important features and landscaping could help to mitigate effects and avoid significant impacts. However, a **minor negative effect** could remain.

- 5.8.10 An urban extension to Eastham (not part of the Council's final Option 2B) could lead to **significant negative effects** in this location. Several of the parcels of land involved in an urban extension would involve changes to the setting of heritage assets. In combination with one another, and the fact that all of the sites would come forward, the effects would be difficult to mitigate.
- 5.8.11 For all of the Green Belt options, if development is at the expense of additional urban regeneration, there are implications for heritage and built environment in those areas. On one hand, it could protect the character of urban areas, but most likely, it would mean that areas stay in a poor condition, and opportunities to enhance the setting of built environments would be fewer. A degree of urban regeneration would still be likely to occur though in the urban areas for each of the Green Belt options, and so uncertain **minor positive effects** are predicted for Option 2A, 2B and urban expansion to Eastham.

5.9 Housing

- 5.9.1 **Option 1A** proposes enough additional housing sites to meet the locally assessed housing need (using the standard method) of a minimum of 12,000 dwellings net over the plan period (i.e. 800 homes per year). There are additional sites identified also, which is a theoretical supply of approximately 14,800 dwellings (though these potentially have deliverability issues). In the event that all these sites come forward, a **significant positive effect** is likely to occur. This amount of development should however provide sufficient choice and flexibility. The distribution of development is also well correlated in terms of employment opportunities and supporting communities of need in a number of locations.
- 5.9.2 **Option 1B** would not generate the positive effects in the short term given the slower rate of delivery. Whilst **significant positive effects** would still arise in the longer term, there would be potential issues in the short term which are considered to be **minor negative effects**.
- 5.9.3 **Option 2A** is predicted to have **significant positive effects** in terms of housing delivery as it would also meet objectively assessed needs. However, if this was at the expense of growth in the urban areas, then the benefits of development for those in greatest need would be reduced.
- 5.9.4 The issues would be more pronounced for **Option 2B** and urban expansion to Eastham, as development would be concentrated more into singular locations (and thus the benefits of development would not be felt by a variety of communities). Therefore, only **minor positive effects** are predicted for both potential locations.
- 5.9.5 All of the options provide sufficient land to meet objectively assessed housing needs. There is also a degree of flexibility built into each option.
- 5.9.6 Should the locally assessed housing need be achieved (for the Borough), this would lead to positive effects on housing. However, setting a target in line with the locally assessed housing need figure does not necessarily mean it will be

achieved if there are issues of deliverability and phasing. Therefore, at this scale of growth, the potential for significant positive effects could be reduced somewhat unless additional land is released to allow for flexibility.

- 5.9.7 The distribution of housing is also important to ensure that a wide range of communities benefit from growth, and that development occurs in appropriate, attractive locations. In this respect, Option 2B performs less well compared to options 1A/1B and 2A.

5.10 Land and Soil

- 5.10.1 **Options 1A/1B** are predicted to have **significant positive effects** as they will lead to the regeneration and use of brownfield land in the urban areas of the Borough. Overlap with agricultural land would be very limited. At a higher scale of growth, the intensification option would need to be supplemented by greenbelt release, but this would not necessarily need to be on best and most agricultural land unless very high levels of growth were pursued.
- 5.10.2 The Green Belt options assume that there would be much more growth in the countryside and therefore, negative effects are inevitable. The precise nature of effects would depend upon the location of development. However, high level effects can be determined as follows.
- 5.10.3 **Option 2A** offers some flexibility in the choice of sites, and therefore a loss of best and most versatile land is possible. However, the weakly performing green belt parcels mostly consist of best and most versatile land, so a degree of negative effects are likely. At the level of growth involved, it is likely that at least 120ha of BAMV land would be affected, with the majority being Grade 3a. There would probably be some Grade 2 land involved though. Therefore, **a significant negative effect** is predicted.
- 5.10.4 The effects for **Option 2B** would lead to an overlap with approximately 70ha of grade 3b land, which is a **significant negative effect**.
- 5.10.5 An urban extension to Eastham would be even more negative, with 95 ha of Grade 2 land affected.
- 5.10.6 The Council's Options 2A/2B envisage releasing the minimum amount of green belt to needed make up any shortfall in housing land in the urban area. If more green belt were released than was needed to make up any urban shortfall, both greenbelt options would generate further negative effects with regards to agricultural land and offer limited opportunities for the reuse of land in urban areas (in fact it could discourage investment in such areas). Therefore, the negative effects could be severe for land and soils at very high levels of growth.

5.11 Landscape

- 5.11.1 **Options 1A/1B** promote urban intensification, with the majority of growth focused to the east of the Borough and within the urban areas. A large number of the sites that would be involved for development are previously developed, and a notable proportion of these are also derelict / vacant and/or low quality in terms of

the contribution they make to townscape. Redevelopment of these sites is likely to have positive effects on townscape. There would be limited changes to the character of the open countryside, but this a positive effect of the strategy which would reduce pressure for Green Belt land release.

- 5.11.2 There are a handful of sites on 'green' space in the urban settlements (for example in West Kirby), but development would not be on important recreational land or lead to coalescence between settlements.
- 5.11.3 Overall, **significant positive effects** are predicted, reflecting these factors.
- 5.11.4 It will be important to ensure that the character of the River Mersey front is enhanced for any development that occurs along its banks. This will be visible from long distances in Liverpool. Provided that appropriate heights, scale and density are used, then positive rather than negative effects ought to be most likely.
- 5.11.5 The effects of **Option 2A** will depend upon the exact sites involved. However, there are likely effects of a dispersed approach regardless of which locations are involved. Though the sites that would be involved have all been identified as weak performing in terms of overall green belt contribution, they are all in the countryside outside of the urban area. It is therefore likely that the character of landscapes will be affected negatively. Development is most likely to affect local amenity rather than lead to significant effects in terms of coalescence and the loss of sensitive land. It is also likely that strategic green infrastructure would be involved given the large scale nature of the sites. However, it is considered that a **minor negative effect** would remain. The choice of sites and dispersed nature of development should mean that no significant effects in any one location are likely.
- 5.11.6 **Option 2B** focuses growth into one large urban extension at Heswall. Another option was also identified early on including Urban Expansion at Eastham. Whilst both options consist of land that is considered 'weak' in terms of its contribution to green belt function, the combined effects of releasing all these parcels of land would most likely lead to **significant negative effects** in these two locations. To the west of Heswall, a large scheme could lead to coalescence with Barnston, whilst an extension at Eastham / Bebington could lead to locally important open space being 'closed off' between Poulton and Brookhurst. For both urban extensions, the strategic nature of development would likely involve substantial roles for green infrastructure and landscaping schemes. Therefore, the potential for mitigation and enhancement of the quality of land is possible. The residual effects may therefore be minor rather than significant. However, at this stage, a precautionary approach is taken, and significant effects are recorded.
- 5.11.7 Should Green Belt development draw investment away from the urban areas to the east of the borough in particular, then the opportunities to achieve positive effects in these locations would be diminished also. This is the case for Options 2A, 2B and urban expansion at Eastham and is a particular weakness of focusing solely or heavily on Green Belt release to meet a large proportion of housing needs.

5.11.8 However, there would still be an element of brownfield regeneration involved for these two options as well as notable employment development. Whilst the benefits would be less pronounced compared to Options 1A/1B, there would still be **minor positive effects** in terms of enhancements to the townscape.

5.12 Population and Communities

5.12.1 Of particular note is that the majority of employment land is proposed along Wirral Waters and surrounding areas and along the River Mersey at Port Sunlight / Bromborough and Eastham. These are high quality employment opportunities that are accessible to the most deprived parts of the Borough and tie-in with the wider regeneration ambitions for the Borough and the wider Liverpool sub-region. In this respect, **significant positive effects** are likely to be generated for each option with regards to population and the community.

5.12.2 However, each option performs differently in relation to impacts upon local centres/settlement areas across the borough, how the growth areas are related to new and existing jobs, health and leisure facilities, green infrastructure links and how the options could help to address overall deprivation.

5.12.3 **Options 1A / 1B** promote a lot of housing growth in urban areas that are in need of regeneration and are suffering from high levels of deprivation. In this respect, the benefits of associated infrastructure improvements would be most likely to help address inequalities, improving access to new / improved health and leisure opportunities and increasing the housing options for a greater proportion of the population.

5.12.4 Options 1A / 1B promote most housing growth the east of the borough and it is therefore accessible to job opportunities and public transport. Growth is managed in the more affluent areas to the west, which helps to support this regeneration-led approach.

5.12.5 There are a number of vacant and poor quality sites involved for Options 1A / 1B. Redevelopment ought to help improve the public realm and could help to improve perceptions of community safety.

5.12.6 Most of the proposed sites are brownfield in nature, and the surrounding areas are urbanised. It will be important to ensure that access to open space and green infrastructure is considered for Options 1A / 1B given that there are no immediate links to green infrastructure networks in the countryside.

5.12.7 Taking the above factors into account, Options 1A / 1B are predicted to have **significant positive effects**.

5.12.8 **Options 2A, Option 2B** and Urban Expansion at Eastham are all less positive with regards to tackling regeneration across the whole borough, as residual growth mainly focuses on the more affluent areas in the borough. Development would be at the periphery of settlement areas, which is less favourable for the population as this is less accessible to jobs, leisure and health facilities generally speaking.

- 5.12.9 However, there would still be an element of urban regeneration for each of these three options (before Green Belt release) and therefore, **minor positive effects** are predicted in terms of addressing inequalities.
- 5.12.10 The strategic nature of developments ought to allow for improvements to be made with regards to social infrastructure. For Option 2A, **minor positive effects** would be generated at several locations across the borough.
- 5.12.11 For **Option 2B** and Urban Expansion to Eastham, the scale of growth associated with an urban extension would likely support new open space, education and health facilities, which would be beneficial for new communities. The location of the new settlements would also be likely to support good access to green infrastructure and open space. These are **significant positive effects** for new communities, but the benefits in other parts of the borough would be limited.
- 5.12.12 These two options would also be more likely to lead to increased commuting for work and distance travelled for local services, which is considered a **minor negative effect** in terms of (not) creating rounded communities/services centres which provide the right offering to improve people's quality of life.

5.13 Transport

- 5.13.1 In general, most of the urban areas in Wirral are covered by some form of transport linkage whether it be cycle routes, roads or rail. The Merseyrail line between Birkenhead and Chester runs along the eastern side of the Wirral, and is close to where more developments are being proposed in these existing urban areas. More development will harness the need for better transport linkages. It is best to place development in areas already serviced by transport infrastructure, to avoid transport upgrade costs in areas where they currently don't exist.
- 5.13.2 Options 1A and 1B propose higher density development in existing urban areas, mainly focusing on Wirral Waters, Commercial Core and other locations to the east of the Borough. Wirral Waters is planned to include a wide range of local facilities and services, including further enhancements to the already good public transport links. Access to jobs would also be good given the future opportunities in Wirral Waters itself and links to Birkenhead and Liverpool, via public transport and road. Development in the urban area would therefore have excellent accessibility. The scale of some sites at Wirral Waters could also be more likely to support on-site facilities that could benefit new and existing communities.
- 5.13.3 In the absence of strategic infrastructure improvements this could lead to negative effects with regards to congestion in areas that already suffer. However, the factors discussed above will help to mitigate such effects.
- 5.13.4 More limited growth is proposed in settlement areas to the middle and west of the borough. These settlement areas exhibit poorer accessibility in terms of access to services and jobs (especially by rail), and in turn increase travel trips by car for a large proportion of the population. Given that growth is limited in these areas, congestion problems are unlikely to be worsened notably here.

- 5.13.5 There are public transport links and local services that will help to promote sustainable travel, but it is likely that a reliance on car travel will remain, which are **neutral effects**.
- 5.13.6 On balance, **significant positive effects** could be generated as the majority of new development will have excellent accessibility and is well linked to existing and planned employment growth and existing infrastructure. This ought to promote sustainable travel and ensure that growth can be supported.
- 5.13.7 However, it will be important to ensure that intensified growth in the urban areas to the east of the Borough does not lead to congestion problems. A **minor negative effect** is predicted to reflect the potential for increased traffic on local roads (though this is also uncertain / dependent upon whether road and bus networks can be enhanced in advance of any development in this area).
- 5.13.8 Both **Option 2A and 2B** are proposing substantial focused development at the periphery of urban areas. This could have a negative effect on transport as existing transport linkage infrastructure may reach capacity and there could be requirements for infrastructure upgrades in locations that are not currently well connected to the transport network. Furthermore, these locations are generally less well related to public transport and services, and more likely to encourage car use. Consequently, these approaches are less likely to support a shift from car dominance.
- 5.13.9 **Option 2A** may have a negative effect on existing transport infrastructure at a number of the Settlement Areas as they will be affected by increases in development, but not necessarily at a high enough scale to fund strategic transport infrastructure or on site improvements to social infrastructure provision such as new schools and health facilities. However, the effects in terms of congestion are less likely to be significant, as development (and thus car trips) would be dispersed. However, the overall picture in terms of car usage would likely be the worst of all three options. The good access afforded by Option 1 would be absent, whilst the strategic opportunities for enhancement associated with large urban extensions would also be less likely. Overall, **minor negative effects** are predicted.
- 5.13.10 **Option 2B** will involve the largest focus of growth into an urban extension at Heswall. This could create localised pressures on the road network, but the scale of growth ought to allow for improvements to be secured. There should also be associated services supporting such extensions and so it should be possible to achieve walkable developments. With regards to employment opportunities though, the links are less positive. For example, an extension to the east of Heswall would likely result in car dominated commuting patterns, putting pressure on local road networks. If development in this location draws development away from the urban areas near to the Commercial Core, it may also mean that investment in transport improvements measures in those areas is diminished.

5.13.11 With this in mind, **minor negative effects** are predicted overall. Whilst this approach could lead to notable effects in certain locations in terms of traffic, the potential for strategic enhancements offset this to an extent.

5.13.12 An urban extension at Eastham would have similar effects, but this has better connections to new employment opportunities (resulting in shorter and potentially fewer car trips). This location is also likely to generate car trips though, particularly given its good access to the A41. A significant increase in traffic in this location could therefore contribute to negative effects on congestion.

5.14 Water resources

5.14.1 The impacts upon water resources will be dependent upon the ability to manage waste water and drainage requirements resulting from new developments. There is an assumption that development can be supported, but this will need to be confirmed with utilities providers regardless of the spatial approach that is taken. At this stage, uncertain effects are predicted for each option in this respect.

5.14.2 With regards to longer term water quality, it is possible that a change in land use from agricultural to residential can reduce the levels of nitrate pollution. In this respect the Green Belt options could have **minor positive effects**, but this carries a degree of uncertainty.

5.15 Sustainability summary of each spatial option

5.15.1 The effects of each option are discussed in detail against for each SA Objective and summarised using a colour coding approach. The colouring and symbolic coding visually represents the predicted effects and has been recorded in line with the following significance scale.

Effects Significance	Effects symbol
Significant positive effects	++
Minor positive effects	+
Neutral effects	0
Minor negative effects	x
Significant negative effects	xx

Uncertain effects	Effects symbol
Uncertain significant positive effects	++?
Uncertain minor positive effects	+?
Uncertain effects	?
Uncertain minor negative effects	x?
Uncertain significant positive effects	xx?

5.15.2 The tables below present a graphical summary of the options assessment findings. One table and supporting text is provided for each option, followed by a comparison of the options with one another.

Option 1A / 1B: Urban Intensification

					?	?	?					?
		?										?
Air quality	Biodiversity	Climate change adaptation	Climate change mitigation	Economy	Health	Heritage	Housing	Land and soil	Landscape	Population and community	Transport	Water resources
					?	?						?
						?						?

- 5.15.3 Option 1A / 1B is predicted to have positive effects across all of the sustainability objectives with the exception of water resources. The benefits are significantly positive in terms of socio-economic factors as the majority of new homes and jobs will be accessible to communities of greatest need in terms of deprivation. There are some question marks about whether the effects would be significantly positive with regards to housing though, as deliverability could be an issue on certain sites. The effects on health, wellbeing and population are significantly positive, as there is a presumption that new social infrastructure will be provided with new development that will benefit new and existing communities in areas of need.
- 5.15.4 With regards to environmental factors, the effects are mixed. Significantly positive effects are predicted with regards to land, soil and landscape because there would be a re-use of land in urban areas and avoidance of agricultural land. The location of development would also support shorter trips and offer access to public transport, so the effects of growth in terms of climate change emissions, air quality and transport are also positive. However, focusing growth into the urban areas could possibly lead to increased traffic in certain locations, with minor negative effects in terms of congestion.
- 5.15.5 The location of some sites presents constraints such as flood risk and nearby biodiversity assets, which are potential minor negative effects. It may also be the case that development in the urban areas is less well supported by green infrastructure and open space, which could be detrimental in terms of climate change resilience and also for health/recreation.
- 5.15.6 There are several important heritage assets located within or adjacent to sites for development. On one hand, significant positive effects could be generated as there will be opportunities for enhancement of poor quality environments. However, should development involve the loss of features of historic value, or change the character and setting of assets, then potentially significant negative effects could arise. This is considered less likely, but is flagged as an issue to ensure that a high-quality approach to design is promoted.

Option 2A: Dispersed Green Belt Release

	?											
				?		?						?
Air quality	Biodiversity	Climate change adaptation	Climate change mitigation	Economy	Health	Heritage	Housing	Land and soil	Landscape	Population and community	Transport	Water resources
			?		?							
	?											

5.15.7 Option 2A is predicted to have a mix of effects across the sustainability objectives. In the main, minor negative effects are recorded, but there are also positive effects. The benefits relate mostly to housing provision, with significant effects identified. This approach would provide a range of sites and choice across the borough at sites that are unlikely to have deliverability issues. This is also positive in terms of the economy. However, the links to new and existing jobs would not be ideal and so minor negative effects are predicted in this respect.

5.15.8 There would be some minor positive effects in relation to population and communities, which relates primarily to providing homes in deprived areas and potential regeneration benefits.

5.15.9 From an environmental perspective the effects are mostly negative. The exception is for water resources, where changes to agricultural land use could potentially reduce nitrate run-off and have benefits in the longer term. The nature of Green Belt sites should also mean that the ability to achieve enhancement of biodiversity on-site and to achieve strategic improvement in terms of green infrastructure is more likely. However, the flip-side is that some of the sites involved are likely to involve functional land for species that are important in terms of the SACs/SPAs. The loss of such land could be potentially significantly negative. Though offsetting / net gain could compensate, there may still be issues for particular species if the measures are not appropriate. Therefore, this issue is flagged at this stage (as highlighted in the HRA).

5.15.10 The other significant negative effects relate to the loss of best and most versatile agricultural land. This option would involve notable loss of land, and this would likely include Grade 2.

5.15.11 Minor negative effects are predicted in relation to other environmental factors as the dispersed approach to development means that pressures would be less prominent in any location, and there should also be potential to mitigate effects. This is the case for landscape, heritage, air quality and transport for example.

Option 2B Settlement expansion into Green Belt (Heswall)

				?		?						?
Air quality	Biodiversity	Climate change adaptation	Climate change mitigation	Economy	Health	Heritage	Housing	Land and soil	Landscape	Population and community	Transport	Water resources
	?								?			

5.15.12 Option 2B is predicted to have a mix of effects across the sustainability objectives. The positive effects are not significant for any of the sustainability objectives. The benefits would not be spread across the borough, and would also not be in areas of greatest need with regards to health, population, and housing. The majority of new homes would also be poorly located in relation to existing and new jobs (in terms of public transport, walking and cycling). This pattern of growth would likely support good access to local services for new communities of new settlements, but would promote increased and longer car trips to access jobs and higher-order services and goods. Therefore, minor negative effects are predicted in relation to transport and air quality.

5.15.13 From an environmental perspective the effects are mostly negative. The exception is for water resources, where changes to agricultural land use could potentially reduce nitrate run-off and have benefits in the longer term. The nature of Green Belt sites should also mean that the ability to achieve enhancement of biodiversity on-site and to achieve strategic improvement in terms of green infrastructure is more likely. However, the flip side is that the land involved at Heswall could involve functional land for species that are important in terms of the SACs/SPAs. The loss of such land could be potentially significantly negative. Though offsetting / net gain could compensate, there may still be issues for particular species if the measures are not appropriate. Therefore, this issue is flagged at this stage (as highlighted in the HRA).

5.15.14 Similar to Option 1A / 1B, there would also be significant negative effects in terms of agricultural land. The effects upon landscape have the potential to be more negative though, as there would be large scale growth in one area with potential coalescence between built up areas. Mitigation is possible though, so the effects are uncertain.

Settlement expansion into Green Belt (Eastham / Bebington)

				?								
	?					?	?					?
Air quality	Biodiversity	Climate change adaptation	Climate change mitigation	Economy	Health	Heritage	Housing	Land and soil	Landscape	Population and community	Transport	Water resources
									?			

5.15.15 An urban extension at Eastham is predicted to have a mix of effects across the sustainability objectives. The positive effects are minor apart from for economy where there are potential significant positive effects. However, the benefits would not be spread across the borough, and would also not be in areas of greatest need with regards to health, population, and housing. The majority of new homes would be fairly well related to existing and new jobs (in terms of public transport and short car trips). This pattern of growth would likely support good access to local services for new communities of new settlements, but would promote increased car trips to access higher order services and goods. Therefore, minor negative effects are predicted in relation to transport and air quality.

5.15.16 From an environmental perspective the effects are mostly negative. The exception is for water resources, where changes to agricultural land use could potentially reduce nitrate run-off and have benefits in the longer term. The nature of Green Belt sites should also mean that the ability to achieve enhancement of biodiversity on-site and to achieve strategic improvement in terms of green infrastructure is more likely. The land involved is not thought likely to involve functional land for species that are important in terms of the SACs/SPAs. However, there could be short term negative effects due to disturbance or loss of BAP habitats.

5.15.17 There would be significant negative effects in terms of agricultural land. The effects upon landscape have the potential to be significant too, as there would be large scale growth in one area with potential coalescence between built up areas. Mitigation is possible though, so the effects are uncertain.

5.15.18 Depending upon the areas affected, there could also be significant negative effects upon heritage by affecting the setting of multiple listed buildings between Poulton and Raby Mere.

5.16 Options comparison

5.16.1 The table below shows an appraisal summary of each option side by side.

	Option 1A		Option 1B		Option 2A		Option 2B Heswall		Urban expansion of Eastham	
Air quality	x	+	x	+	x		x		x	
Biodiversity	x?	+	x	+	xx?	++?	xx?	+	x	+
Climate change adaptation	x	+?	x	+?	-		-		-	
Climate Change mitigation	+		++?		x		-		-	
Economy and employment	x	++	x	++	x	+?	x	+?	x	++?
Health	x?	++?	x?	++?	x?		x	+	x	+
Heritage	xx?	++?	xx?	++?	x	+?	x	+?	xx	+?
Housing	++		x	++	++		+		+	
Land and Soil	x	++	x	++	xx		xx		xx	
Landscape	++		++		x	+	xx?	+	xx?	+
Population and Communities	++		++		x	+	x	+	x	+
Transport	++		++		x		x		x	
Water Resources	?		?		+?		+?		+?	

5.16.2 As illustrated above, Option 1A / 1B generates the greatest number of positive effects and these are of greater significance. Option 1A / 1B achieve significant positive effects with regards to housing, as they would deliver housing in areas of greatest need and also in a range of locations. The benefits in terms of economy are also likely to be most significant for Options 1A / 1B as they place housing in locations that are well related to jobs, and are also more likely to benefit deprived communities. There are likely to be knock on positive effects in terms of population and communities and health. For the Green Belt options, the effects upon health and communities are less positive, and could also generate negative effects.

5.16.3 Option 1A / 1B is also most beneficial with regards to transport as it places growth in the most accessible locations and ought to lead to the fewest increases in car trips. This has benefits in terms of air quality too. The use of previously developed land with this option will also protect best and most versatile

agricultural land, which is something each of the Green Belt options would not achieve as well.

- 5.16.4 The area where Option 1A / 1B perform potentially less well is in terms of the historic environment. There are a range of heritage assets that could be affected by growth in the urban areas, and dependent upon whether features are lost or their setting affected, this could lead to significant negative effects. For Option 2A and 2B (Heswall), any negative effects are likely to be less significant. However, it should be noted that Option 1A / 1B could on the other hand lead to significant positive effects should it lead to the wider improvement of the built environment in the urban area.
- 5.16.5 Option 1B is virtually the same as Option 1A for most sustainability objectives when considered in the longer term. However, a stepped approach could have some differences in terms of housing (with negative effects in the short term), climate change (with a greater proportion of homes being built to higher standards) and biodiversity (with sites potentially becoming more valuable before they are developed and then subsequently affected). There may also be some implications in terms of planning for infrastructure (i.e. there is more time to prepare for future growth requirements).
- 5.16.6 Each of the Green Belt options are potentially positive in terms of water quality as they will result in the change of land use from agricultural to housing. This is not the case for Option 1A / 1B.
- 5.16.7 All of the Green Belt options are predicted to generate negative effects with regards to landscape character due to the loss of greenfield land in the countryside. This is more likely to be an issue for the urban extension options rather than the dispersed approach.
- 5.16.8 Likewise, the Green Belt options are more likely to involve land that is functionally linked to habitats used by protected species. This is a potentially significant negative effect that could be better avoided with Option 1A / 1B. With effective mitigation and compensation though, the Green Belt options might be more likely to achieve significant positive effects in terms of net gain.

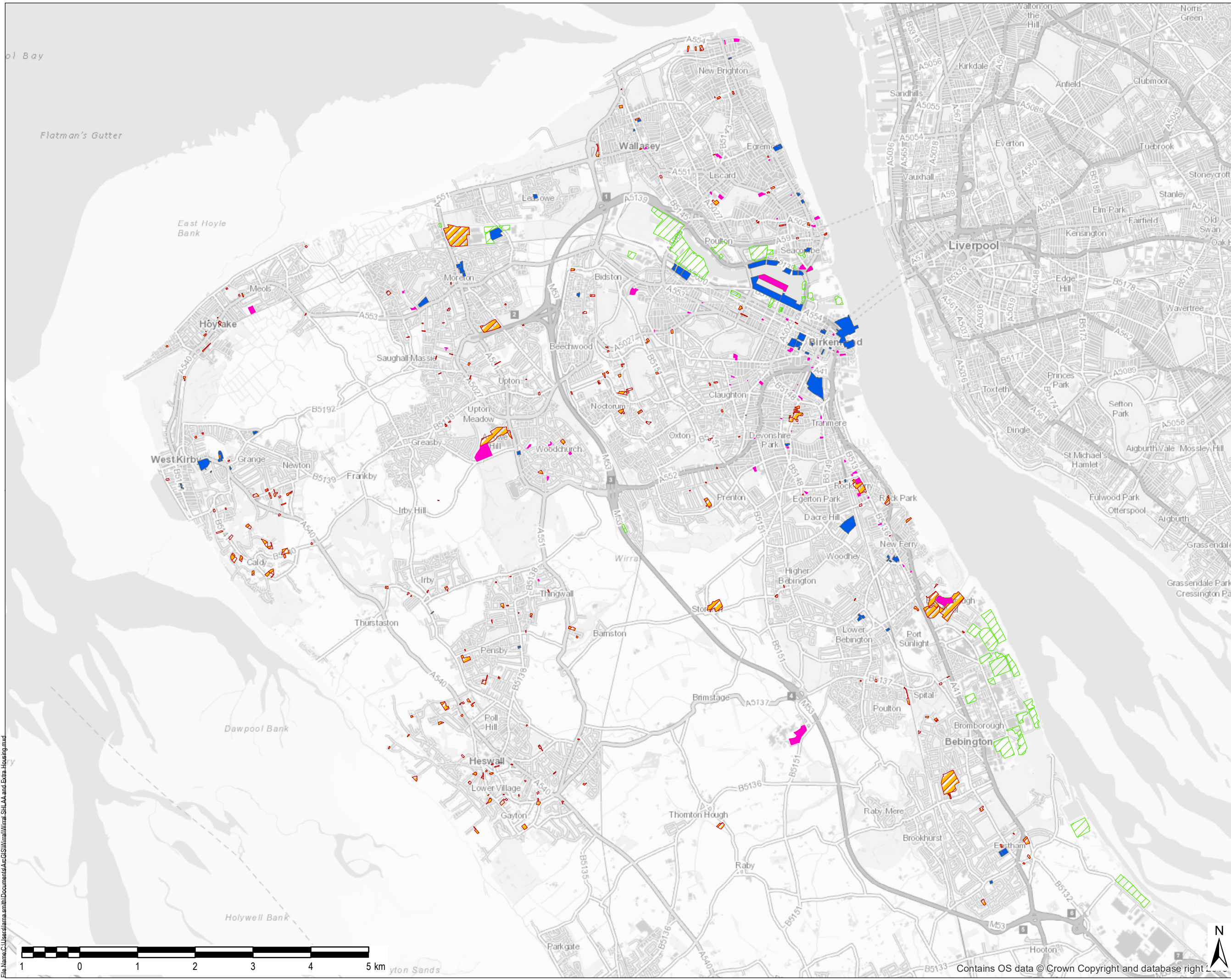
6. Next steps

- 6.1.1 The Council has identified a preferred approach for the scale and distribution of development for Wirral. However, the plan is still in the early stages of development, and further work will be undertaken to shape the final approach.
- 6.1.2 This interim SA Report has been prepared to document the SA process that has been undertaken to inform the preferred approach so far. This has primarily involved an assessment of reasonable alternatives for the spatial strategy.
- 6.1.3 Following the consultation period on the issues and options document, the Council will work towards the publication of a draft Local Plan. This will take account of consultation feedback, the findings of the SA (as set out in this interim report), technical studies and any new evidence.
- 6.1.4 A full SA Report will be prepared to support the publication version of the Local Plan. This will likely involve the following key tasks:
- Proportionate updates to the scope of the SA
 - Establishing and appraising refined spatial strategy options
 - Appraisal of site options should there be a need to choose between sites for allocation in a particular location.
 - Appraisal of the Local Plan ‘as a whole’ including all its policies, and establishing potential monitoring measures. Further mitigation or enhancement measures will also need to be considered.
- 6.1.5 The timetable moving towards Adoption of the Local Plan is set out in Table 6.1 below. At each of these stages, it may be necessary to undertake additional iterations of SA to account for changes/modifications to the Plan.

Table 6.1: Plan timetable

Plan Milestone	Timescale
<i>Draft Plan Consultation</i>	27 th Jan – 23 rd March 2020
<i>Pre-Submission Local Plan Consultation</i>	July-Sept 2020
<i>Submission of the Local Plan</i>	November 2020
<i>Examination</i>	During 2021
<i>Adoption</i>	December 2021

APPENDIX A: MAPS OF THE SPATIAL OPTIONS



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- LEGEND**
- Urban Intensification
 - Extra Housing Sites
 - Employment Sites
 - Committed Development

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Purpose of Issue
STRATEGIC OPTIONS

Client
WIRRAL COUNCIL

Project Title
**WIRRAL LOCAL PLAN:
ISSUES AND OPTIONS
CONSULTATION**

Drawing Title
**OPTION 1A AND 1B
URBAN INTENSIFICATION**

Drawn LS	Checked IM	Approved IM	Date 15/01/2020
AECOM Internal Project No.		Scale @ A4 1:60,000	

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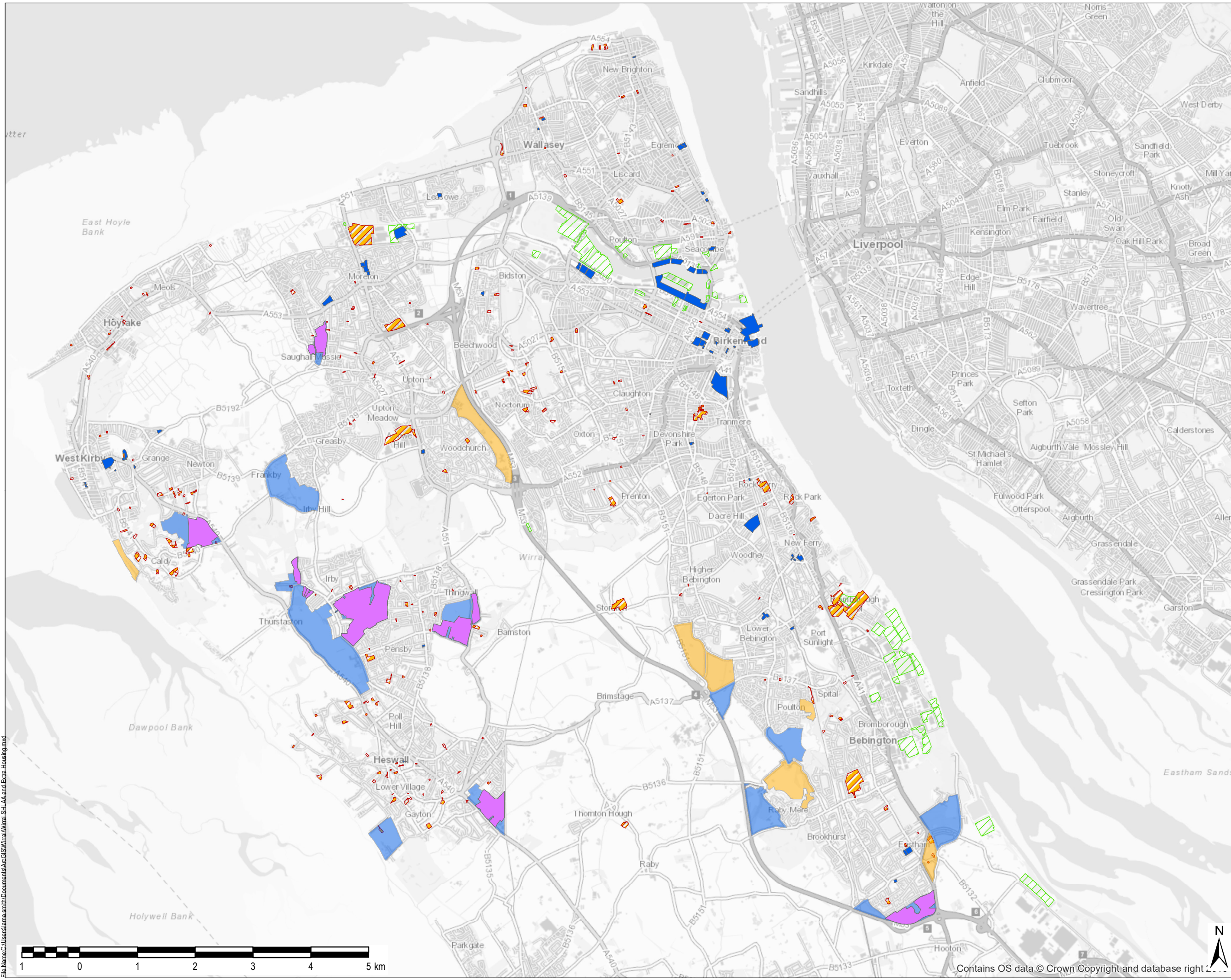


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LEGEND

- Option 2A
- Final Selection SHLAA
- Deliverable Sites
- Remaining Weak Parcels with no Submitted Sites
- Weak Parcels with Submitted Sites
- Employment Sites
- Committed Development

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Purpose of Issue
STRATEGIC OPTIONS

Client
WIRRAL COUNCIL

Project Title
**WIRRAL LOCAL PLAN:
ISSUES AND OPTIONS
CONSULTATION**

Drawing Title
**DISPERSED GREEN BELT
INCLUDING OPTION 2A SITES**

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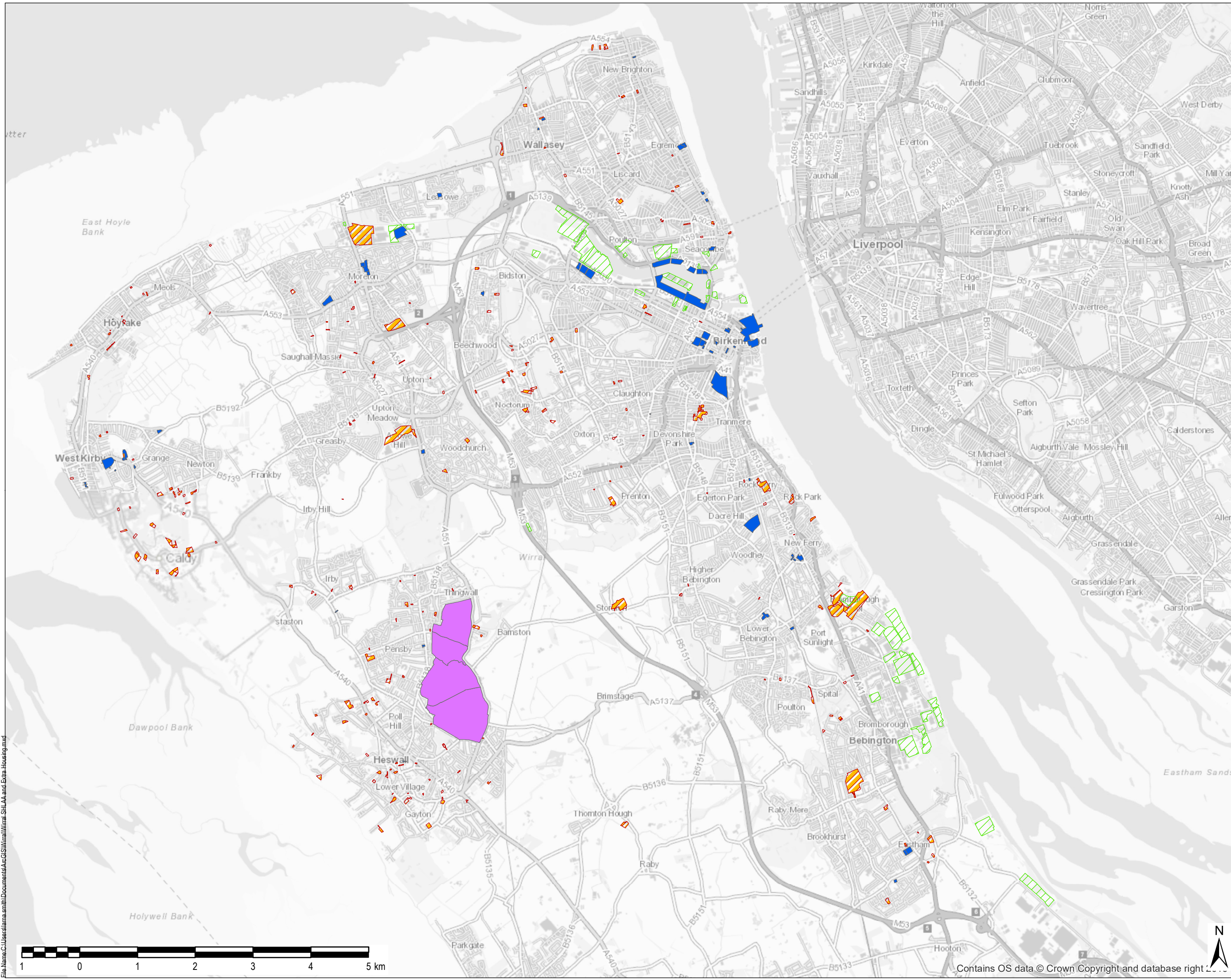
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- LEGEND**
- Green Belt Release
 - SHLAA Deliverable Sites
 - Employment Sites
 - Committed Development

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Purpose of Issue
STRATEGIC OPTIONS

Client
WIRRAL COUNCIL

Project Title
**WIRRAL LOCAL PLAN:
 ISSUES AND OPTIONS
 CONSULTATION**

Drawing Title
**SINGLE URBAN EXPANSION:
 HESWALL**

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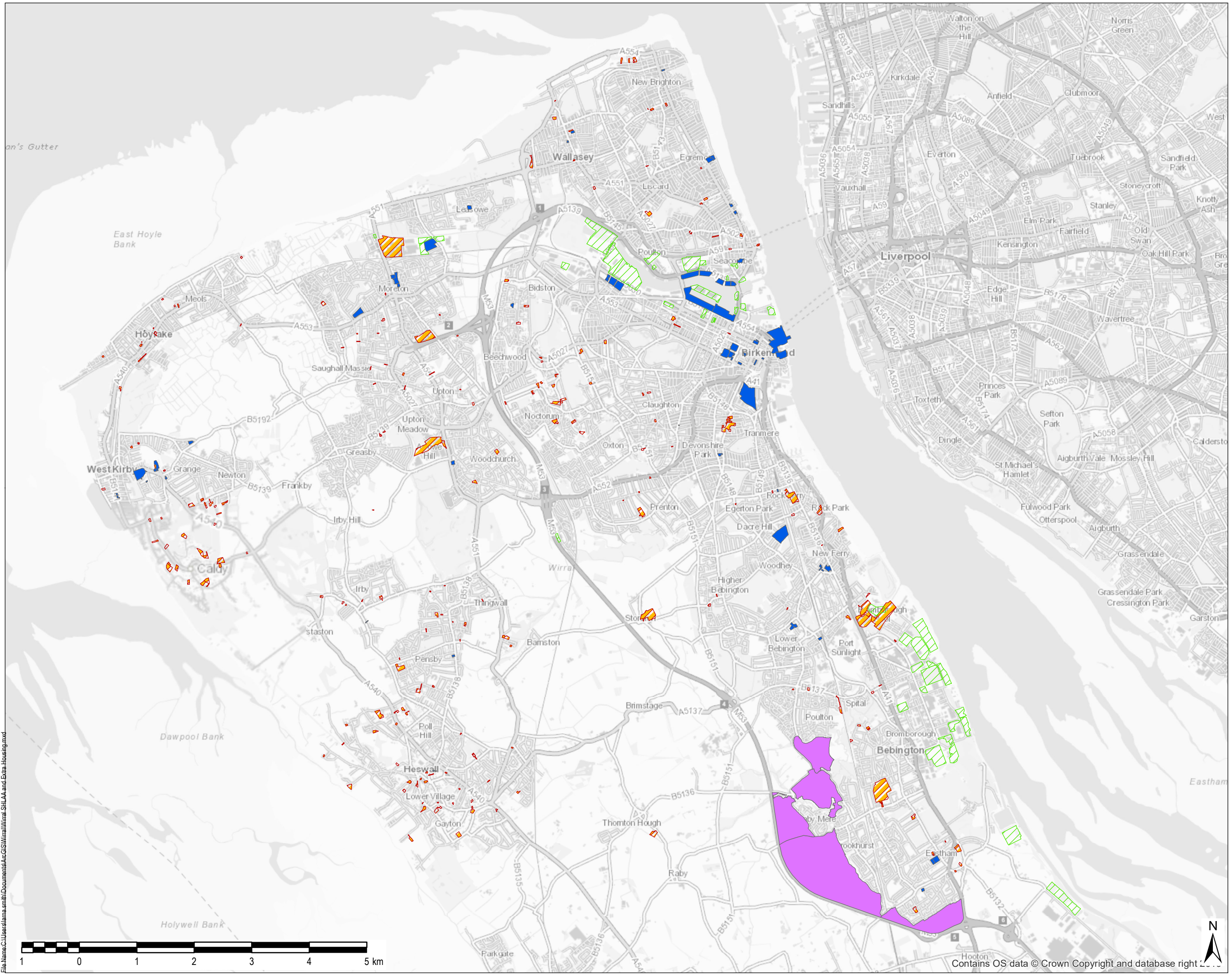
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- LEGEND**
- Urban
 - Expansion: Eastham
 - SHLAA
 - Deliverable Sites
 - Employment Sites
 - Committed Development

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Purpose of Issue
STRATEGIC OPTIONS

Client
WIRRAL COUNCIL

Project Title
**WIRRAL LOCAL PLAN:
ISSUES AND OPTIONS
CONSULTATION**

Drawing Title
**URBAN EXPANSION:
EASTHAM**

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APPENDIX B: APPRASAL OF SPATIAL OPTIONS

Appraisal scoring guide

The effects of each option are discussed for each SA Objective. The predicted effects are recorded in line with the following significance scale.

Effects Significance	Effects symbol
Significant positive effects	++
Minor positive effects	+
Neutral effects	0
Minor negative effects	x
Significant negative effects	xx

Uncertain effects	Effects symbol
Uncertain significant positive effects	++?
Uncertain minor positive effects	+?
Uncertain effects	?
Uncertain minor negative effects	x?
Uncertain significant negative effects	xx?

Air quality

There are currently no AQMAs within the Borough. However, Wirral Borough Council have identified a number of traffic hot spots where there is considered to be a particular likelihood of elevated emissions. These hot spots are at Singleton Avenue and Arrowse Park, (both in Birkenhead) and at the A41/ Port Sunlight roundabout.

No hotspots are associated with the Borough's motorway junctions, nor the toll point of the Kingsway Tunnel, suggesting that the presence of significant strategic road network (SRN) infrastructure does not currently give rise to notable air quality concerns.

With that being said, development should be placed in locations that are not exposed regularly to poorer air quality. In light of other key issues addressed, development should be supportive and enable low emission technologies and encourage sustainable modes of transport such as walking and cycling, to be beneficial for air quality within the area.

Wirral Waters

Wirral Waters will see approximately a 4,100 increase in dwellings across all spatial alternative options. This will lead to a large increase in car trips, which could affect air quality in one of the most built up parts of the Borough. However, the density of development and relatively good access to services should mean that public transport, walking and cycling are possible.

It should be encouraged that Wirral Waters promotes a sustainable pattern of development and that active travel to employment, recreational facilities, open space, education and community recreation is enabled.

An opportunity to connect Wirral Waters to Liverpool may arise through enabling greater transport connections such as the existing tram link and other public transport alternatives.

Limiting car usage and car parking for this development would be an optimum outcome in terms of air quality. Bringing closer employment, recreation, open space and other important services would be beneficial as less distance is required to travel to and from the Wirral Waters development scheme.

The effects are recorded as neutral in relation to this location, as this level of development is already committed through outline permission. However, in combination with other development in the urban area, air quality could potentially be affected more prominently (this is discussed below).

Settlement Area 1 (Wallasey)

Option 1A and 1B involve additional housing sites within the settlement area.

In addition to committed development and nearby growth at Wirral Waters it is probable that air quality could be negatively affected by increased car trips. However, the scale of growth involved is unlikely to lead to significant changes in air quality, nor put new housing in areas of existing sensitivity in terms of health. The likely development sites are scattered throughout the urban area, and so the effects are unlikely to be focused on any particular

junction or road either. Furthermore, they are well located in terms of access to public transport. Taking these factors into account only **minor negative effects** are recorded.

On the assumption that Options 2A, 2B and 'urban expansion to Eastham' would involve the same level of growth in this settlement area (i.e. that the site options here are likely to be deliverable), then the same effects are predicted as for Option 1A / 1B. However, if a greater amount of development is displaced from the urban areas to green belt (whether dispersed or concentrated) and this means little growth in settlement area 1, then the effects for the Green Belt options would be **neutral** in this location for these two options.

Settlement Area 2 – Commercial Core

Increasing development within the commercial core is likely to contribute towards increased emissions of pollutants from vehicles. In combination with development at Wirral Waters, there would be a large increase in residential uses. This is likely to lead to an increase in car trips, particularly given that the M53 and A41 are nearby as well as the tunnels crossing to Liverpool. Offsetting this though is the fact that there will be good links to employment links via public transport, walking and cycling. Much of the housing might be anticipated to be high density too, meaning that car spaces and a reliance on car travel is reduced. This ought to reduce trips into the area from further afield, which might otherwise be the case with development at urban fringes. Therefore, **neutral effects** or possibly **minor positive effects** are predicted for Options 1A and 1B.

Options 2A, 2B and 'urban expansion to Eastham' will not have effects in terms of new residential development being exposed to poor air quality in the Commercial Core. Therefore, neutral effects are predicted in this respect. However, new communities in greenbelt locations will still be likely to access jobs in the Commercial Core, so trips along routes into these locations are still likely to contribute car emissions and a worsening of air quality. These are **minor negative effects** for both options.

Settlement Area 3 – Suburban Birkenhead

For Options 1A / 1B, Suburban Birkenhead will experience modest residential growth in addition to that which is already committed.

Although there are currently no declared AQMA's within Wirral, there are certain areas that are particularly likely to experience an increase in emissions if there is an increase in development. One such area surrounds Singleton Avenue (A552).

The proposed distribution and amount of homes in this location would be unlikely to lead to significant increases in growth in this area though. New development is also not proposed in areas with potentially poor air quality and access to public transport is good. Therefore, **neutral effects** are predicted.

Options 2A, 2B and 'urban expansion to Eastham' will not directly affect Suburban Birkenhead as there are no further sites involved in this Settlement Area. However, development in dispersed locations could lead to trips to employment generating locations such as the Commercial Core and Bromborough. This could lead to an increase of trips (and poorer air quality) along the A552, having **minor negative effects**.

Settlement Area 4 – Bromborough and Eastham

Bromborough and Eastham will experience large economic and employment growth toward the east site of New Chester Road and the A41. For any of the options this is potentially negative in terms of attracting vehicles (and associated emissions).

Although there are currently no declared AQMA's within Wirral, there are certain areas that are particularly likely to increase emissions if there is an increase in development. There are some concerns with air quality around the A41 roundabout at Port Sunlight. This is close to where a large number of employment sites are proposed, along with several smaller residential developments in the surrounding areas. It is therefore possible that there will be negative effects on air quality given that large developments within this locality are proposed and concentrated in areas around the A41/ Port Sunlight roundabout. These developments are likely to attract development from existing areas and also from new development across the borough.

Option 1A/1B proposes very few residential sites within this Settlement Area. Therefore, additional trips and emissions in this respect are predicted to be **neutral**.

Option 2A proposes dispersed greenbelt development that may be adjacent to the Settlement Area. There are a number of green belt locations where development would be likely to generate car trips given that they are on the periphery of the settlement area. However, they are fairly close by to employment opportunities and the urban area, which ought to support some uptake of public transport and other modes of travel. The short listed site identified by the Council for Option 2A is to the south of Eastham and has good access to roads. The scale of development is unlikely to lead to significant effects though and trips should be of a shorter length generally speaking. Therefore, **neutral effects** are predicted.

Option 2B (Heswall urban expansion) involves no additional growth in this settlement.

An urban expansion to Eastham could involve significant growth adjacent to this settlement area. On one hand it places growth in areas that are close to employment. However, it is likely that a concentrated approach could lead to an increase in emissions and poorer air quality, which is a **minor negative effect**.

Settlement Area 5 - Mid Wirral

Although there are currently no declared AQMA's within Wirral, there are certain areas that are particularly likely to increase emissions if there is an increase in development. The area of concern in this settlement area is located in Arrowse Park on Arrowse Park Road. Increase in development should be carefully considered to avoid adverse effects on air quality. There are potential housing developments in the vicinity of Arrowse Brook Road for Option 1A/1B. In combination with existing development, there could be increased traffic on these roads and therefore potential for negative effects upon air quality within the area. However, the magnitude of effects is fairly low given the level of growth involved. Therefore, only **minor negative effects** are anticipated at worst.

There are a number of weakly performing Green Belt parcels on the settlement boundaries within mid-Wirral (Parcel refs: 5.8 and 5.9 which are included in the Council's Option 2A plus parcels 5.13 and 3.4). The location of the sites at the urban periphery is likely to lead to

increased car trips, which could be expected (depending on the scale of growth and number of sites involved) to have **minor negative effects** with regards to air quality in this location.

Option 2B is unlikely to affect Mid-Wirral significantly as the bulk of residual growth would be in Green Belt locations at Heswall (under the Council's option) or urban expansion at Eastham. Therefore, **neutral effects** are predicted.

Settlement Area 6 – Hoylake and West Kirby

For Option 1A / 1B, the growth proposed for Hoylake and West Kirby is fairly modest. Larger sites are identified close to the Greenfield Estate and Grange Hill Farm, which are located along the A540. Alongside committed developments in the area, this could lead to increased car trips and potential negative effects in terms of air quality. However, there is reasonable access to local facilities, and the current air quality is not close to exceeding objectives. Therefore, effects are predicted to be **neutral** or at worst **minor negative effects**.

Option 2A includes a large weakly performing Green Belt parcel (6.15) on the urban fringe of West Kirby at Caldby. Access to facilities and services would be more likely to be by car, and in combination with other development in the urban area is more likely to have **minor negative effects** for this settlement compared to Options 1A and 1B.

Option 2B will have no further effects upon this settlement area as the residual growth would be in Heswall (under the Council's option) or an urban expansion to Eastham. Traffic movements towards this settlement area are not likely to be significant. There would still be a degree of growth in this location though as urban sites would be exhausted before green belt release. Therefore, potential **minor negative effects** could also occur as per Option 1A/1B.

Settlement Area 7 – Heswall

In addition to existing development commitments in Heswall, only a limited amount of growth is proposed under Options 1A / 1B. Therefore, **neutral effects** are predicted.

There are several weakly performing green belt parcels surrounding the Settlement Area (Parcel References: 7.11, 7.18, 7.19, 7.25, 7.27, which are included in the Council's Option 2A - plus 7.5 and 7.26). If released for development, the scale and location of growth is likely to lead to an increase in car trips, with implications in terms of air quality. However, there are no existing concerns in respect of poor air quality, and some of the sites could support public transport access, so **minor negative effects** are predicted rather than significant ones.

Option 2B involves a large Urban Extension at Heswall (Parcel References: 7.15 – 7.18). This is likely to lead to increased traffic onto the A551 in particular. However, as for Option 2A, the effects are not likely to be significant. A comprehensive urban extension ought to support new local services, which could encourage walking and cycling for some trips. There is also a train station that would be accessible to a large amount of new housing in this area. Overall, only **minor negative effects** are predicted.

Settlement Area 8 – Rural Areas

None of the options involve notable development in the rural settlements. This is positive in terms of air quality because these locations are broadly less accessible and more likely to encourage / require car usage. Although Options 2A / 2B / urban expansion to Eastham involve the potential release of weakly performing green belt parcels which all fall within the defined Settlement Area 8, the effects of these options have been discussed in relation to the urban settlement areas that they are adjacent to.

Option 1A / 1B would be less likely to draw additional development through the smaller villages in rural areas, as the bulk of new homes are to the east of the Borough in urban areas. Therefore, **neutral effects** are predicted.

The Green Belt options that involve more development to the middle and west of the Borough could lead to more trips passing along rural roads to access the jobs and services offered in the urban areas (particularly the job opportunities to the east and toward Liverpool and the Mersey Gateway). In this respect, Options 2A and 2B (Heswall expansion) could have some **minor negative effects**.

Overall effects

There are no AQMAs in the Borough, but annual monitoring reveals several locations where air quality has exceeded targets for maximum nitrogen dioxide emissions. Development that could worsen emissions in these areas or expose people to poor air quality should therefore be avoided if possible. Conversely, strategies that promote sustainable modes of travel ought to be supported.

All three options involve employment growth in broadly the same locations, with substantial development land identified near Port Sunlight / Bromborough and also in locations complementing Wirral Waters. These will therefore be likely to act as major attractors of car trips (with potential negative effects in terms of air quality). The extent to which trips are likely to take place along routes which already suffer from poor air quality, and the number of trips being made by car rather than sustainable modes will determine the effects for each option.

Option 1A/1B involves growth in the urban areas within the Borough, with most new residential development identified in the Commercial Core. Development in this location will have very good access to employment opportunities, which would reduce the need to travel to access such opportunities. There are also good public transport links which could mean that additional growth is able to access employment opportunities and other services further afield such as in Liverpool and at Port Sunlight / Bromborough. It is still likely that car trips will be generated though, and this could involve traffic along routes that have been highlighted as being of concern in terms of nitrogen dioxide emissions (for example along the New Ferry Bypass), and the A552. However, the length and number of trips that would need to be made under this option ought to be reduced by virtue of the good connections to services that are available in proposed development locations.

Additional residential sites are located in Mid-Wirral and at West Kirby in particular. These areas are less well-located and may lead to an increase in car trips. However, there are local services and some local job opportunities that could help to limit car travel.

Overall, Options 1A/1B involve urban focused development that should ensure that growth does not lead to notable increases in emissions from traffic in most locations. Though there is substantial growth proposed in areas that experience poorer levels of air quality, there is a

good connection between employment and housing opportunities and this should help to promote sustainable modes of travel. Overall, **minor positive effects** are predicted in this respect as air quality ought to improve in the main.

However, some locations could experience **minor negative effects** as growth will be drawn to proposed employment locations, which are mostly concentrated in the built up areas of Birkenhead that are more vulnerable to poor air quality.

Option 2A would involve release of on weakly performing Green Belt parcels at dispersed locations across the Borough. This would involve locations that are less well related to employment opportunities, and are likely to be reliant on car trips. Though this could increase emissions along routes toward key employment and retail areas, the implications are unlikely to be significant given the dispersed nature of growth. As such, **minor negative effects** are predicted.

Option 2B involves focused growth in a single urban extension. An extension at Heswall would likely involve substantial car trips toward employment opportunities at Port Sunlight and Wirral Waters, which could cause a worsening of air quality along key routes (For example the A552). With this approach though, the majority of new development would be located in an area with low levels of ambient air pollution (which is beneficial in this respect). There is also a train station which could potentially help to offset trips. Overall, **minor negative effects** are predicted.

An extension at Bromborough / Eastham (not pursued under the Council's final Option 2B) would also be likely to generate substantial car trips, but is well located in regard to employment opportunities. This means that trips would be shorter for some residents, and potentially offers greater ability to use non-car modes of travel. There is also a train station nearby to access locations further afield. Nevertheless, **minor negative effects** are predicted, as car trips are likely to be generated along routes where air quality is being monitored and has been close to exceedance targets.

Health

Wirral has a mix of areas that are most deprived and least deprived in terms of health and disability (which generally overlap with other dimensions of deprivation). The majority of the settlement areas include some deprived areas, though there is a greater concentration to the east of the Borough.

Wirral Waters

Wirral Waters will see approximately a 4,100 increase in dwellings across all spatial alternative options (in the plan period). The increase in development may prompt the need for additional and improved health services, which could benefit existing communities and new residents. However if existing services are not enhanced, with increases in housing and employment, there may be a risk of existing services and facilities reaching capacity and suffering in the short term.

Wirral Waters is located within an area among the most deprived for health as well as other indices in the Index of Multiple Deprivation. This could be due to the lack of services, amenities and green/open space within the vicinity. There are existing health care facilities and open space areas for recreation and physical wellbeing, however with the increase of development there will need to be equally an increase in services, parks and amenity. Birkenhead Park, Bidston Hill and the Wirral Ladies Golf Club fall to the south west of the proposed development, however attractive walkability to these parks / open space areas are uncertain as many footpaths are in need of maintenance and upkeep.

Many surroundings areas in particular along Dock Road are industrial uses. Development in the area can be an opportunity for regeneration and to increase public and open spaces. From the current deprivation status, the area could see some improvements in liveability aspects if land uses are suited to more attractive services such as mixed use, residential and employment. Key infrastructure will need to be analysed in relation to the current capacity of roads, parks and public amenity.

Given that this development is committed though, the effects are not attributable to any of the local plan spatial options as such. However, the approach to growth clearly needs to acknowledge the important role of Wirral Waters.

Settlement Area 1 – Wallasey

Within Wallasey there are several outdoor sporting facilities and open space areas. There are also several existing medical services in this settlement area.

Option 1A / 1B will increase development within Wallasey in smaller scale areas scattered throughout the Settlement Area. Nevertheless, the sites that have been allocated within Wallasey will need to gain access to health facilities, GP surgeries, green and open space etc. There are existing facilities that are likely to be accessible to new development, and additional facilities could be secured in areas of higher growth such as the Commercial Core.

It is unlikely that Option 1A and 1B will lead to notable changes in health infrastructure or leisure opportunities. On the other hand, the level of growth proposed is unlikely to be unmanageable. Therefore, **neutral effects** are predicted. Option 1B may be more

beneficial in terms of being able to plan proactively for future growth given that development in the short term would be slower.

Options 2A, 2B and 'urban expansion to Eastham' do not involve additional growth at the urban fringes, and so the effects are also **neutral**.

Settlement Area 2 – Commercial Core

This settlement area is predominately most deprived in both health and multiple indices. Option 1A / 1B proposes intensification of development within areas of health deprivation. There are currently existing parks and recreation within the Commercial Core. There is one Local Nature Reserve (LNR) located to the west of the settlement area which is Bidston Moss. There are several local parks and gardens such as the Flaybrick Memorial Gardens and Birkenhead Park located a distance away from the proposed developments in the commercial core.

Whilst these areas may be able to service and encourage physical activity and contribute to health and wellbeing, there will be a greater increase in development both in employment and residential which will trigger the need for more local parks, green spaces and gardens.

Increases in development will trigger the need for additional health facilities. This would have a **minor positive effect** on the wider community if services and facilities are planned for. If not, this will have a **minor negative effect** in the short term at least.

Options 2A, 2B and 'urban expansion to Eastham' do not involve additional growth at the urban fringes, and so the effects are **neutral**. The level of growth in the urban area would be expected to be lower given that there are several sites that might not come forward in such a scenario.

Settlement Area 3 – Suburban Birkenhead

Apart from the committed site allocations, additional growth is fairly limited in the urban area for Options 1A and 1B. There could be a greater amount of 'potential additional housing sites' are found to be deliverable. However, this is uncertain at this stage. As a result, **neutral effects** are predicted overall.

Options 2A, 2B and 'urban expansion to Eastham' do not involve additional growth at the urban fringes, and so the effects are **neutral**.

Settlement Area 4 – Bromborough and Eastham

Apart from employment development within Bromborough and Eastham, there are several housing sites for allocation in Options 1A / 1B. This is likely to have a **neutral effect** on health within the area as the scale of development is relatively modest.

There are a number of weakly performing greenbelt parcels adjacent to the Settlement Area (Parcel References: 4.13 – included in the Council's Option 2A - plus 4.4, 4.5, 4.6, 4.8, 4.10, 4.11, and 4.18). Their release for development will likely have some impact on existing health facilities, which may trigger the need for new and improved services. The sites are located some distance away from existing health services, which is a minor negative effect with regards to accessibility. This is a **minor negative effect** for Option 2A.

Urban expansion to Eastham could support new satellite health facilities, which would be beneficial should these be brought forward as part of development. Not only would this ensure walkable access to facilities for new communities, but it could also benefit existing surrounding communities (though most of these are not particularly deprived in terms of health or more broadly). There should also be good access to other facilities as these are likely to be incorporated into new development such as primary schools, local shops and open space. Given the location in the countryside and the ability to introduce green infrastructure, it is also likely that new communities will have good access to green space and recreation. These are **significant positive effects** in this location. This doesn't do much to benefit existing communities in areas of need though, and should it draw investment away from areas of need then it could have negative implications elsewhere.

Settlement Area 5 - Mid Wirral

Option 1A/1B proposes several sites within Mid Wirral. These sites are of very small scale and will have a minimal impact on existing health facilities. The allocated sites are within areas of 0 – 20% most deprived for health. There are several GP surgeries within close proximity to the proposed sites. It is likely this increase in development will have a **neutral effect** on the Settlement Area.

Option 2A will have an uncertain **minor negative effect** as it involves the potential release of weakly-performing green belt parcels. The parcels are located in areas most deprived for health in particular parcels 5.8 and 5.9 (which are included in the Council's Option 2A), plus parcels 5.13 and 3.4. Whilst these are all within greenbelt land, cumulative effects from development may result in more health deprivation within the Settlement (through a loss of open space and pressure on health services). Should development support new services (which is unlikely given the scale of growth), then benefits could arise. Likewise, enhancements to green infrastructure could also be beneficial.

Option 2B and urban expansion of Eastham do not involve additional growth at the urban fringes in this location, and so the effects are **neutral**.

Settlement Area 6 – Hoylake and West Kirby

This settlement area has fairly poor access to general practices with only one existing within the Settlement Area. There is accessibility to open space such as Grange Hill, West Kirby Marine Lake, Ashton Park and Caldy Hill and various golf courses. Most of the Settlement Area is identified as being of 60 – 80% least deprived.

Option 1A / 1B propose sites that are close to an existing GP surgery and within close proximity to Caldy Hill and Ashton Park. It is unlikely that these developments will impose significantly on existing health services and open space due to their relatively small scale. Therefore, **neutral effects** are predicted. One of the development sites contains open space though, and its loss could be potentially a **minor negative effect**. It is suggested compensation / enhancement of open space in the settlement area is considered.

For Option 2A there are two weak performing parcels (Parcel 6.15 - which is included in the Council's Option 2A, plus parcel 6.20) adjacent to West Kirby. Their loss to development could have a **minor negative effect** on health within the Settlement Area, as they could be important for amenity purposes and informal recreation. The increased population would

also be likely to put pressure on health services, but not at a level to support new facilities. Therefore, without enhancement to local facilities, there is potential for **negative effects**. Conversely, new communities ought to have good access to natural greenspace, which is a **minor positive effect** with regards to wellbeing.

Option 2B / urban expansion of Eastham will not affect Hoylake and West Kirby as there are no additional sites within or adjacent to this Settlement Area. Therefore, **neutral effects** are predicted.

Settlement Area 7 – Heswall

In Heswall, there is one GP service located next to Telegraph Rd (A540). There are natural and semi natural green spaces in Heswall including the Heswall Dales LNR, the Whitfield Common, Poll Hill, Heswall Beacons, golf courses and outdoor sport facilities.

Option 1A and 1B propose only 3 additional small scale sites in Heswall for development.. The site allocations area in areas of 20 – 40% most health deprivation. Given the small amount of growth the effects are likely to be **neutral**.

There are a number of weakly performing Green Belt parcels surrounding the Settlement Area (Parcel References: 7.11, 7.18, 7.19, 7.25, and 7.27 - included in the Council's Option 2A - plus 7.5 and 7.26). Their loss to development could have a **significant negative effect** on health facilities and open space within the Settlement Area given the additional pressure that would be generated. However, at the scale of growth involved across multiple sites, there may be potential to support enhancements to facilities, or new satellite facilities. This would mitigate such effects and potential bring about benefits. However, it is unclear the extent to which this would occur and over what timescale. A precautionary approach is taken, but it is considered that **minor negative effects** are more appropriate. With regards to open space, the majority of and lost is agricultural in nature and not formally used for recreation. Therefore, impacts are more likely to be upon amenity, and perceptions of openness (which is still negative in terms of wellbeing). Conversely, development could possibly present opportunities to enhance recreation opportunities by creating formal play space and or walking and cycling links / green infrastructure. These are potential **positive effects**, but not significant given that the majority of affected communities are not health deprived.

Option 2B proposes growth for areas that are currently within 60 – 80% least deprived. The sites (Parcel Reference: 7.15 – 7.18) are also referred to as the Single Urban Extension and are approximately 75% developable area. The effects are similar to Option 2A, but would be more concentrated, and less likely to affect adjacent communities in terms of amenity / wellbeing. The larger scale of development as part of a comprehensive urban extension may also be more likely to support entirely new health and community facilities, which is a potential **significant positive effect** in this location. In the event that growth is not well planned, this option would place most pressure on existing services though, potentially bringing about **significant negative effects**.

Settlement Area 8 – Rural Areas

Option 1A/1B proposes no growth at the villages in the Rural Areas, and so **neutral effects** are predicted.

Although Options 2A/2B involve weak performing parcels which all fall within the defined Settlement Area 8, the effects of these options have been discussed in relation to the urban settlement areas that they are adjacent to.

Health: Overall effects

In making predictions about the potential impacts of each option, it is assumed that development in modest amounts could be accommodated at existing GP services, or that improvements could be secured through contributions. However, this will depend upon planning from healthcare commissioners and the extent of development.

Options 1A/1B propose a large amount of growth in areas that are experiencing health deprivation such as within Birkenhead in particular. This should have benefits with regards to the provision of affordable homes, the improvement of the public realm, and in terms of being accessible to healthcare facilities. Without upgrades to healthcare services, there could be negative implications on existing facilities (in terms of longer waiting times etc). However, with planned upgrades and possibly new facilities in the longer term the effects ought to be positive by concentrating investment into areas of need.

In terms of open space and recreation, this option will place new homes within walkable communities in the main, which is positive in terms of active travel. There would be limited loss of greenspace associated with this option, and access to urban leisure and recreation facilities would be good. However, the potential to implement open space improvements might be limited given the need for intensification of built development. Furthermore, access to open countryside / greenspace would not be ideal within the more-dense urban areas. On balance, a **minor positive effect** is predicted. It is unclear the extent to which new development will lead to improvements to communities, but a proactive approach could potentially lead to **significant positive effects**. Conversely, a non-inclusive approach to growth could exacerbate inequality, which is potentially **negative**. There is some uncertainty in this respect.

There is an assumption that larger scale focused development in any particular location could support entirely new facilities. This applies to certain aspects of the greenbelt release options.

Option 2A would involve dispersed growth in peripheral locations. Broadly speaking, access to healthcare facilities is not ideal given the urban fringe location of developments. The scale of growth may also not be quite large enough at certain sites to support new facilities (though improvements to existing facilities would be presumed). In this respect, neutral effects are recorded in terms of accessibility. Most of the locations involved exhibit fairly low levels of deprivation (both multiple deprivation and specifically in the health domain). This is the case in Heswall, West Kirby and Greasby where the potential greenbelt release sites are located. Though there are pockets of health (and multiple) deprivation towards Bebington, they are also not in the 0-20% categories. A lot of these surrounding areas are also within areas of low deprivation. If growth in the Green Belt locations is at the expense of investment in areas of need, this could potentially be negative. Consequently, this approach is likely to be limited in its ability to address health inequalities. Therefore, **neutral** or potentially **minor negative effects** are predicted in this respect.

Option 2B / urban expansion at Eastham both focus the majority of development in one single location. The amount of growth could support new satellite health facilities, which would be beneficial should these be brought forward as part of developments. Not only would this ensure walkable access to facilities for new communities, but it could also benefit existing surrounding communities (though most of these are not particularly deprived in terms of health or more broadly). There should also be good access to other facilities as these are likely to be incorporated into new development such as primary schools, local shops and open space. Given their location in the countryside and the ability to introduce green infrastructure, it is also likely that new communities will have good access to green space and recreation. This doesn't do much to benefit existing communities in areas of need though, and should it draw investment away from areas of need then it could have negative implications. Therefore, this option is less likely to address inequalities compared to Option 1A/1B. For this reason only **minor positive effects** are predicted and **minor negative effects** are also recorded.

Heritage

Background

There is a broad distribution of Listed Buildings throughout Wirral together with 26 conservation areas, 8 scheduled monuments and 4 registered parks/ gardens. Some of the site allocations and options proposed will directly affect historical areas.

Equally, however, new development will offer opportunities for enhancing the quality of the Borough's historic environment, either through regeneration of a specific asset or through improvements to an asset's setting and wider environment.

Wirral Waters

Wirral Waters is within close proximity to the Birkenhead Park Conservation Area however it is not within the same Settlement Area. All three options involve substantial development along West Float, East Float and the River Mersey developed for housing and employment. Although these areas proposed for development are of limited heritage significance, there are a handful of listed buildings and nearby conservation areas such as Hamilton Square and Birkenhead Park. It is expected that Wirral Waters development will contribute positively to the Borough's historic environment through regeneration. In any event, the principle of development is already established in the area through outline permission, and so the effects associated with the Plan are predicted to be **neutral** at this stage.

Settlement Area 1 – Wallasey

Wallasey has several conservation areas and a number of listed buildings. One of the larger conservation areas is the Wellington Road Conservation Area which runs along King's Parade and Bowson Street. The other is the Magazines Conservation Area. For Options 1A and 1B, no housing sites are identified for intensification in these areas, but there are some potential additional sites (where viability is less certain) that are along the approach to the Wellington Road Conservation Area on Marine Promenade. There is a large site in a prominent position (New Palace Amusements), that could potentially be a mixed-use

development in the longer term. Whilst the site is not listed, it is of a different form and style to the predominant newer developments in surrounding areas along the front. Therefore, development would lead to a change in the character of the built environment in this location. This could possibly be positive or negative dependent upon design. Significant negative effects are considered unlikely though.

Several smaller sites would also be involved in this settlement area, but away from the Conservation Areas. These are discussed below:

SHLAA 1171 is surrounded by residential development and is vacant. It is therefore unlikely to lead to any effects on heritage. Likewise, sites SHLAA 2047 and SHLAA 0651 are underused pieces of land with low environmental quality. They are surrounded by development of limited historical value. Therefore, **neutral effects** are likely.

Two sites are identified as part of the urban intensification option either side of the listed Wallasey Town Hall. These are sensitive locations in the sense that development will affect the setting of an important building and they are also prominent sites along the coast. Both buildings detract from the character of the town hall though, and their demolition and rebuilding of higher quality schemes offers the potential for enhancement. This could lead to **minor to significant positive effects**.

SHLAA 2006 contains a non-listed building, but is in a prominent elevated location and is lined by trees at the boundary with King Street. Development will change the character of this location, but would not be likely to be detrimental to the setting of the nearby Grade 2 Manor Church Centre (provided that the boundary trees are retained). The building is in a state of disrepair, and without development is likely to continue in such state.

Overall, redevelopment of sites for housing in this settlement area is likely to lead to either neutral or positive effects with regards to the historic environment. The extent of the effects is dependent upon the design and layout, so at this stage only **minor positive effects** are predicted.

Options 2A, 2B and 'urban expansion to Eastham' will not have direct effects for Wallasey as there are no further sites proposed within or adjacent to the settlement area. Therefore, **neutral effects** are predicted. A degree of urban regeneration should still occur for these options, which could have **minor positive effects**, but there is a greater degree of uncertainty as to whether this would occur.

Settlement Area 2 – Commercial Core

The commercial core includes the Wirral Waters development and other smaller scale developments throughout Birkenhead. Redevelopment in this area (Option 1A / 1B) could potentially have positive effects on heritage as it could accommodate opportunities for enhancing the quality of the Borough's historic environment through regeneration of specific assets or through improvements to an asset's setting and wider environment. The largest conservation area in this settlement is Hamilton Square which is where the Birkenhead Town Hall is located.

Site SHLAA Ref 0752 (Woodside) will involve development over this conservation area and contains a range of listed buildings. The site is also along the River Mersey and is visible

from important areas of Liverpool docks. Current development is currently low rise and the river bank is dominated by the ventilation station of the Mersey Road Tunnel (Grade II). Intensification for housing could potentially have positive or negative effects depending upon the nature of development. It will be important to create a river front environment that does not detract from the character of existing heritage assets. In other parts of this development site / location, there are buildings involved that are listed. These are mostly in a poor condition, so it is possible that development could help to provide a viable use. However, this is on the presumption that such features would be retained. Should demolition be involved, then there would be negative effects. At this stage, these effects are uncertain, and so a precautionary approach is taken and **negative effects** are noted.

SHLAA 4078 is a large derelict / vacant site. Redevelopment will have a positive effect upon the built environment, but is unlikely to have notable effects upon heritage assets or wider character provided that there are no high rise developments that are visible from afar.

Overall, Options 1A / 1B are predicted to have mixed effects, but there is a degree of uncertainty. In one respect, there is a large amount of development on derelict sites with poor environmental quality. This should lead to improvements to the built environment. There is also potential for listed heritage assets to be used proactively. On the other hand, insensitive development and demolition of heritage assets could occur, and there is potential for the riverside environment to be drastically altered. The effects could therefore be **significantly positive** or **significantly negative**.

Options 2A, 2B and 'urban expansion to Eastham' will not directly affect the commercial core as there are no further site allocations proposed within or adjacent to the settlement area. Therefore, **neutral effects** are predicted in this respect. There should still be a degree of urban regeneration under this approach, but this would not be to the same extent. Therefore, whilst some positive or negative effects may still occur, there is a greater degree of uncertainty and the significance of effects overall is likely to be lower also. The effects could therefore be **minor positive** or **minor negative**.

Settlement Area 3 – Suburban Birkenhead

There are several large conservation sites within Suburban Birkenhead. However, none of the proposed sites for Option 1A/1B fall within close proximity to these areas and are not likely to be visible along sight lines. The effects are therefore predicted to be **neutral** in respect of heritage.

There are two sites however which are immediately adjacent to or include listed buildings.

SHLAA 1665 is a former school site, which has been mostly demolished apart from a listed building in the centre of the site. In its current state, the building is in a somewhat strange position surrounded by derelict land. Development on site is likely to alter this setting, but given the current condition of the site, effects are likely to be positive rather than negative provided that sympathetic design is implemented (and the listed building itself is retained).

SHLAA 1832 is a relatively small site, but this is opposite several Listed features associated with St Anne's Church. The current building on the proposed housing site is modern in design and fairly domineering in the townscape. A development is therefore unlikely to have negative effects on the setting of the listed buildings.

Green Belt release associated with Options 2A, 2B and 'urban expansion to Eastham' will not directly affect Birkenhead as there are no further sites proposed within or adjacent to the settlement area. Therefore, **neutral effects** are predicted for these options too.

Settlement Area 4 – Bromborough and Eastham

In Bromborough and Eastham, there are several employment sites located along the River Mersey within a primary industrial area. As traditional industrial and manufacturing employment declines, there are increasing opportunities within key growth sectors such as maritime and marine industries. Some of the employment growth would take place close to the Bromborough Pool Conservation Area, but this is already in an industrial setting, and additional development would not change the character of this area further.

To the south, there is further employment land identified near to Eastham Country Park. There are listed buildings in this area but they are very well screened from development and their character and setting would be unaffected by growth. A lot of employment growth will occur along the edges of the River Mersey, which means it will be visible from long range. Whilst this is unlikely to have negative effects in terms of industrial heritage, it will change the character of the settlement area, and will need to be well designed. At this stage, neutral effects are predicted in relation to the employment land proposed in this location.

A range of housing sites are presumed to be involved in this settlement area. The potential effects associated with each site are discussed below:

SHLAA 2034 is a small site proposed for allocation in an area that is within a residential setting that is some distance from any sensitive heritage assets. Development is therefore likely to have **neutral effects**.

SHLAA 1850 is a former school site that is proposed for housing. The site is surrounded by existing residential areas with relatively modern design. There are no heritage assets within close proximity, nor will development affect the setting of the Conservation Area at Eastham. Therefore, neutral effects are predicted.

With regards to landscape, a redevelopment on this site would be positive as it will encourage regeneration and avoid the site lying derelict.

SHLAA 4072 is a relatively small site in the urban area adjacent to the Port Sunlight Conservation Area. It is likely a high density development would be brought forward, similar to adjacent land uses. The site does not currently contribute to the quality of the built environment and so the effects are likely to be neutral.

Three sites are proposed for allocation in close proximity to the Port Sunlight Conservation Area (to the northern edge). There would be no direct loss of heritage features as a result of development on these areas as SHLAA 4079 is a car park, and sites 4080 and 1833 consist of vacant land. However, all of the sites are adjacent to the Conservation Area and several listed buildings. There is therefore potential for development to affect the setting of heritage assets in this location. The nature and extent of the effects will depend largely upon the density, layout and design of development. Given the poor quality nature of the land at the moment, it ought to be possible to introduce developments without having negative effects upon the historic environment, and possibly securing improvements (for example by re-

introducing features that are important to the Conservation Area such as street trees. In combination, development here is predicted to have **potential / uncertain minor positive effects**.

One potential site (SHLAA 1610) that would be involved is adjacent to the Lower Bebington Conservation Area. The site is currently derelict land, but has re-greened to an extent and contributes to an open setting on the edge of the Conservation Area. A high density development in this location will most likely be visible from the Conservation Area itself, but with good design is unlikely to have a significant effect. **Minor negative effects** are predicted at this stage.

Overall, the housing sites that would be developed in this settlement area are most likely to lead to neutral effects or improvements to the quality of the built environment. Overall, a minor positive effect is predicted at this stage, but this is dependent upon design.

The Council's Option 2A could involve dispersed development at a single location on the southern periphery of this settlement area and there are a number of other weakly performing Green Belt parcels on the periphery of the settlement area. The effects would be dependent upon the choice and number of sites pursued. Given the large number of site options in this area though, it is likely that sensitive locations could be avoided at lower scales of growth.

Parcel 4.13 (included in the Council's Option 2A) is not within close proximity to any designated heritage assets. Though it is close to the Eastham Conservation Area, the site adds little value to its setting, and a sensitively designed site ought to ensure that adverse effects are avoided. **Neutral effects** are predicted.

Parcel 4.11 (not in the Council's Option 2A) could affect the setting of a listed building which is a minor to **significant negative effect**.

Parcel 4.8 (not in the Council's Option 2A) is adjacent to a listed building and development would negatively affect the rural setting. This is a minor to **significant negative effect**.

Parcel 4.6 (not in the Council's Option 2A) is in a relatively non sensitive location with regards to heritage, and so neutral effects would be likely.

Parcel 4.18 (not in the Council's Option 2A) would encompass parts of Eastham Conservation Area, and would be likely to have **minor negative effects** on its character. In combination with Parcel 4.13 the effects could be intensified.

Overall, Option 2A is predicted to have **neutral effects**. Though development at some of the potential development locations could lead to significant negative effects, there are other sites available where the impacts would be lesser or neutral. This is the case for Parcel 4.13, which has been 'shortlisted' as a proposed site in the Council's final version of Option 2A.

A single urban extension west of the settlement area (not included in the Council's final Option 2B) is predicted to have a **significant negative effect** with regards to heritage. Several of the parcels of land involved in an urban extension would involve changes to the setting of heritage assets. In combination with one another, and the fact that all of the sites would come forward, the effects would be difficult to mitigate.

Settlement Area 5 - Mid Wirral

There are no conservation areas and only a small number of listed buildings within this settlement area.

Two sites are derelict former school / health facilities, which are in a poor condition. The surrounding areas are not sensitive in terms of heritage, and therefore, development is likely to have neutral effects.

Housing and employment development is identified at Reeds Lane / Reedville Grove for Options 1A / 1B. This is a non sensitive location with regards to heritage, and so **neutral effects** are predicted.

Additional sites for the longer term have also been identified for Options 1A / 1B. The largest is at Arrowe Brook Road, and is currently in employment use. A **neutral effect** is likely.

In relation to dispersed Green Belt release, there are a number of weak performing Green Belt parcels at the edge of this settlement area. The effects will be dependent upon the sites that come forward. The issues are discussed in each potential development location.

Parcel 5.13 (not included the Council's Option 2A) is to the west of Greasby. Development here would be adjacent to the small settlement of Frankby. There is a Conservation Area that overlaps with the potential development site, and with this there are a variety of listed heritage assets. Development here could close the open space between Greasby and Frankby, which would have a detrimental effect upon the character of the village by eroding the rural feel of the surrounding countryside. However, the site is relatively well screened, and it should be possible to mitigate effects through the application of landscaping. Nevertheless, this is a **minor negative effect**.

Green Belt parcels 5.8/5.9 (both included in the Council's Option 2A) are to the south west of Moreton adjacent to the Conservation Area of Saughall Massie. Parcel 5.8 actually encompasses two listed farmhouse buildings. Should development involve the loss of these features, there is the potential for significant negative effects. Given that these are on the outskirts of the development area, it ought to be possible to retain and enhance these features though. Therefore, **minor negative effects** are predicted.

Option 2B (Heswall) and an urban expansion to Eastham do not involve any residual growth at the periphery of this settlement area and so **neutral effects** are predicted.

Settlement Area 6 – Hoylake and West Kirby

Options 1A / 1B involve several housing sites along Grange Road. The larger two sites are not likely to be visible from Hoylake and West Kirby War Memorial despite its elevated position. Therefore, neutral effects are predicted in this respect.

Site SHLAA 3095 is bounded by stone walls alongside Grange Road, and despite not being in the Conservation Area, these features do continue into the Meols Drive Conservation Area. Insensitive development could therefore have potential for negative effects on the setting / approach to the settlement. Provided that policy measures are secured to mitigate

potential effects though; the residual effect would be **neutral**. At this stage there is a degree of uncertainty though.

Two smaller scale sites are identified as potential housing sites along Banks Road. These are currently in a poor condition, so their redevelopment would be positive in terms of the built environment, but **neutral effects** on heritage are predicted given the lack of sensitivity in this area. Likewise, SHLAA 2035 consists of derelict land with limited historical value. A development here is predicted to have neutral effects too.

Hoylake and West Kirby have two large Conservation Areas. The first is the Caldý Conservation Area and the second is the West Kirby Old Village Conservation Area. SHLAA Ref 1899 proposes residential development on the Caldý Conservation Area. This will have a minor negative impact as it detracts from the conservation and historical value.

Option 2A could involve development to the south west of West Kirby (Parcel Reference: 6.15). This is adjacent to Caldý Conservation Area. A large area of open space would be affected, which would affect the setting of the Conservation Area edge. However, this is unlikely to be visible to most people, as views from the surrounding built up area are limited / screened. It would affect residential amenity for a handful of properties though, and would also change the experience for those using the nearby wooded areas for recreation. Overall, a **minor negative effect** is predicted.

Option 2B (Heswall) and an urban expansion of Eastham do not involve any residual growth at the periphery of this settlement area and so **neutral effects** are predicted too.

Settlement Area 7 – Heswall

There are only two small brownfield sites proposed in the urban area. These are both surrounded by modern development with no special historical features. As a result, **neutral effects** are predicted in relation to Options 1A/1B.

Option 2A involves dispersed growth on a range of sites identified as performing weakly in green belt terms. The nature and extent of effects is dependent upon which sites are involved. The potential effects at different locations are discussed below.

A large site at Thingwall (Parcel 7.18) is adjacent to the Barnston Conservation Area. However, development would likely be well screened and unlikely to have a notable effect upon the approach to the village. Therefore, **neutral effects** are associated with this location should development occur.

To the south of Heswall, (Parcel 7.11) is open in nature, but is relatively flat, so is not prominent and does not contain or contribute to the setting of any heritage assets. Therefore, **neutral effects** are associated with this location should development occur.

To the north west of Heswall, large areas of land have been identified as potential development locations. The effects would be dependent upon the extent of development here. At parcel 7.27, there is modern development surrounding the site with limited value for the historic environment. Broadly speaking, the effects are therefore likely to be neutral. There is a listed farmhouse to the farthest north west of the site, and the rural setting of this would be altered. However, the provision of a landscape buffer would offset this to an extent so only minor effects would be anticipated. If development was expanded further

west to include parcels 7.26 (not in the Council's Option 2A) and 7.25, the gap between Thurstaston (which is a Conservation Area) and Irby would be closed, and the small scale character of this village could be negatively affected, which is recorded as a **minor negative effect**.

Overall, the effects are predicted to be **neutral**, as there is sufficient flexibility here to avoid areas of greater sensitivity.

Option 2B would involve an urban extension adjacent to this settlement area. The scale of the site would substantially alter the rural setting of the countryside between the existing urban area of Heswall and the small village of Barnston (which is designated as a Conservation Area). There is a Grade II listed Christ Church at the edge of the settlement and stone boundary walls along the edge of the proposed urban extension site. Development has the potential to alter the setting of both the church, and the edge of the Conservation Area. Retention of important features and landscaping could help to mitigate effects and avoid significant impacts. However, a **minor negative effect** could remain.

Settlement Area 8 – Rural Areas

There is no proposed development in the smaller villages for any of the options. Therefore, the effects are predicted to be **neutral** with regards to the historic environment.

Overall effects

Options 1A / 1B involve a range of housing sites in the urban areas of the main settlements across the Borough. In some locations, there are limited sensitivities and the sites involved are poor quality. Therefore **neutral effects** are predicted. This applies to most of the development proposed in Heswall (Settlement Area 7), the rural areas (Settlement Area 8), mid Wirral (Settlement Area 6) and Sub-Urban Birkenhead (Settlement Area 5). At West Kirby and Bromborough, there are some local features that could be affected by development, but mitigation ought to ensure that the residual effects are **neutral** too (or potentially positive).

In other locations, development is proposed that is close to conservation areas and / or listed buildings. For example, In Wallasey (Settlement Area 1) several sites are identified for intensification which are adjacent to listed buildings (i.e. Wallasey Town Hall). However, the existing site conditions / character of the existing buildings is poor and development is most likely to lead to improvements rather than negative effects. This is also the case in Bebington at the edge of Port Sunlight Conservation Area, where improvements measures ought to help enhance the setting of listed buildings. **Minor to significant positive effects** are predicted to reflect these factors.

The key area where effects are likely is the Commercial Core (Settlement Area 2). There are several large sites proposed in areas that contain multiple listed buildings and overlap with Conservation Areas. Of particular importance are the sites along the River Mersey which form a backdrop to Liverpool and contain listed assets. In this wider area there are also a number of listed buildings. Effects are potentially negative or positive but this is dependent upon design and layout. If buildings are lost or damaged by development, these could be **significant negative effects**. Likewise, development along the River Mersey could negatively affect the character of a prominent listed asset. However, sensitive

development could help to better preserve listed buildings and enhance the setting and character of the area should development be sensitively designed. This would be a **significant positive effect**. Given the regeneration-focused approach being promoted by the Plan, it is considered more likely that positive rather than negative effects will be generated, but there is uncertainty at this stage.

Option 2A is more likely to have effects on heritage features that rely upon open countryside. This is because dispersed growth in the Green Belt would involve a loss of open space, which in some locations would be likely to erode the character of small villages and affect the setting of heritage assets. However, there ought to be sufficient flexibility in the choice of sites to ensure that the most sensitive areas can be avoided. The more sensitive locations under this option involve parcels of land at Bromborough and Eastham Settlement Area. Development of some of these could lead to significant negative effects. However, at the lower levels of growth involved, there remains flexibility to ensure that such effects are avoided. Therefore, only **minor negative effects** are predicted for Option 2A overall.

Option 2B / and an urban expansion of Eastham would limited growth in other parts of the borough, and so the effects would be very localised.

A single urban extension to the east of Heswall (Option 2B) is predicted to have minor negative effects. The scale of the site would substantially alter the rural settling of the countryside between the existing urban area of Heswall and the small village of Barnston (which is designated as a Conservation Area). There is a Grade II listed Christ Church at the edge of the settlement and stone boundary walls along the edge of the proposed urban extension site. Development has the potential to alter the setting of both the church, and the edge of the Conservation Area. Retention of important features and landscaping could help to mitigate effects and avoid significant impacts. However, a **minor negative effect** could remain.

An urban extension to the south / south-west of Bebington and Eastham (not in the Council's final Option 2B) could lead to **significant negative effects** in this location. Several of the parcels of land involved in an urban extension would involve changes to the setting of heritage assets. In combination with one another, and the fact that all of the sites would come forward, the effects would be difficult to mitigate.

For all of the Green Belt options, if development is at the expense of urban regeneration, there are implications for heritage and built environment in those areas. On one hand, it could protect the character of urban areas, but most likely, it would mean that more areas stay in a poor condition, and opportunities to enhance the setting of built environments would be fewer. A degree of urban regeneration would still be likely to occur though in the urban areas for each of the Green Belt options, and so uncertain **minor positive effects** are predicted for Option 2A and 2B.

Land and Soils

The NPPF promotes the efficient and sustainable use of natural resources, including supporting development which avoids the best and most versatile agricultural land and development which makes effective use of previously developed land.

Wirral consists of a mix of heavily urbanised areas, non-agricultural areas of greenspace and land with agricultural value.

Settlement Areas 1, 2, 3, 4, 5, 6 and 7 are predominately urban or non-agricultural land. Settlement Area 8 (Rural Areas) are made up of a mix of Grade 2, Grade 4 and Grade 5 Agricultural Areas but the majority is Grade 3.

It is important to note limited accuracy of the data used to establish the grades of land in this analysis. The data is of a coarse scale and is dated. Therefore, it should be used as a general indication of the type and amount of land that could be lost for each of these options. More detailed local surveys will confirm the quality of agricultural land should Green Belt release be proposed. This could make the effects identified here worse or better.

Settlement Areas 1 – 7

These settlement areas are mostly urban areas and contain limited valuable agricultural land. This approximately covers 60 -70% of Wirral's Local Plan Area.

Almost all of the site allocations involved for Options 1A / 1B are within urban areas. Consequently, there would be limited loss of best and most agricultural land. Furthermore, many of the sites involved are brownfield and / or derelict. Promoting these for development ahead of brownfield land is in keeping with the NPPF as it avoids the loss of sensitive soils, and is an efficient use of land. In the absence of a plan, it is more likely that greenfield sites could be developed on appeal, and so a focused urban intensification approach is predicted to have **significant positive effects** in relation to soil and land.

Options 2A, 2B and urban expansion to Eastham will not directly affect these Settlement Areas in terms of Land and Soil, as the growth is mostly involved outside of the current settlement boundaries. These issues are therefore discussed for Settlement Area 8 below.

Settlement Area 8 – Rural Areas

Settlement Area 8 is predominately rural and open areas including green belt land, open space and areas that have minimal to no development currently.

Settlement Area 8 is made up of Grade 2, Grade 3, Grade 4 and Grade 5 Agricultural Land. There are guaranteed to be negative impacts on Agricultural Land if development were to occur in areas where there are significantly important agricultural land purposes.

Option 1A / 1B involves one site within the rural areas (SHLAA 2050). The site is approximately 4.7ha of Grade 3 Agricultural Land. Whilst this is not an optimum outcome, the effects are neutral in the context of the borough resources.

Option 2A could involve a range of development locations in the rural areas / at the edge of the urban areas. The precise effects would depend upon which of the weaker performing

site parcels were selected for development. Of those identified though, several are within best and most versatile land including Grade 2. To deliver the land requirements to meet a shortfall of up to 2500 dwellings in the Green Belt (rather than the urban area), it is calculated that approximately 120ha of best and most versatile land could be affected. Of this, it is likely that some would be Grade 2 land, but there is greater flexibility to avoid such sites. If an increased growth target is followed, then the flexibility in choice decreases and the loss of land would be higher, as well as the likelihood of grade 2 land being affected. These are **significant negative effects**.

Option 2B will also lead to substantial development on agricultural land. At Heswall, there is overlap with over 140ha of Grade 3 agricultural land, of which approximately 50% is thought to be 3a classification (i.e. best and most versatile). In total approximately 70ha of Grade 3a land could be lost, which is a **significant negative effect**.

An urban extension to Eastham, could overlap with greater areas of agricultural land (approximately 200ha). Importantly, much of this would be Grade 2 land (95ha). This option would therefore be the least attractive in respect of soil resources and would incur **major significant negative effects**.

At a higher level of growth, the pressure on Green Belt land would increase, and so the likelihood of significant negative effects occurring would increase in certainty.

Overall effects

Option 1A/1B is predicted to have **significant positive effects** as it will lead to the regeneration and use of brownfield land in the urban areas of the Borough. Overlap with agricultural land would be very limited. At a higher scale of growth, the intensification option would need to be supplemented by greenbelt release, but this would not necessarily need to be on best and most agricultural land unless very high levels of growth were pursued.

The Green Belt options assume that there would be much more growth in the countryside and therefore, negative effects are inevitable. The precise nature of effects would depend upon the location of development. However, high level effects can be determined as follows.

Option 2A offers some flexibility in the choice of sites, and therefore a loss of best and most versatile land is possible. However, the weakly performing green belt parcels mostly consist of best and most versatile land, so a degree of negative effects are likely. At the level of growth involved, it is likely that at least 120ha of BAMV land would be affected, with the majority being Grade 3a. There would probably be some Grade 2 land involved though. Therefore, a **significant negative effect** is predicted.

The effects for Option 2B would lead to an overlap with approximately 70ha of grade 3b land, which is a significant negative effect. An urban extension at Eastham (not in the Council's Option 2B) would be even more negative, with 95 ha of Grade 2 land affected.

The Council's Options 2A/2B envisage releasing the minimum amount of green belt to needed make up any shortfall in housing land in the urban area. If more green belt were released than was needed to make up any urban shortfall, both greenbelt options would generate further negative effects with regards to agricultural land and offer limited opportunities for the reuse of land in urban areas (in fact it could discourage investment in such areas). Therefore, the negative effects could be severe for land and soils at very high levels of growth.

Landscape

Background

Landscape in Wirral is a mixture of lowland farmland, rocky outcrops, urban areas, coastal farmland, establishing woodlands and recreational areas. A Landscape Character Assessment (LCA) and a Landscape Sensitivity Assessment (LSA) were completed in November 2019. These assessments have reviewed the local character of Wirral and highlight specific areas of physical and cultural influence which have shaped the landscape.

Wirral Waters

Wirral Waters is committed development that will likely contribute positively to Wirral's townscape. It will be a master planned project that will likely redefine the core of Wirral's urban area, delivering high quality design in an area that is characterised mostly by vacant land and buildings and / or industrial units.

Given that growth here is committed development, the effects are not attributed solely to the Local Plan, but positive effects would be felt for each of the options.

Settlement Area 1 – Wallasey

Settlement Area 1 is not within a distinct Landscape Character Type (LCT), however it lies directly adjacent to the North Wirral Coastal Edge LCT.

The committed developments within Wallasey are small scale and dispersed. It is likely these will have positive effects on landscape / townscape character, given their brownfield nature. However, this is not attributable to the Local Plan as such.

Options 1A/1B propose several further sites for housing development in Wallasey, many of them located south of Wallasey closer to the River Mersey.

Redevelopment of these sites is likely to have positive effects on townscape given that they are brownfield in nature and in need of redevelopment. Sites along the coast could potentially be important to the coastal landscape / townscape, and therefore **minor positive effects** are predicted.

There would be limited changes to the character of the open countryside adjacent to the Settlement Area. This is a positive effect as it reduces pressure for Green Belt land release.

Options 2A, 2B and urban expansion to Eastham will not directly affect Wallasey as there are no residual site allocations proposed in this Settlement Area. A degree of urban regeneration would still be expected to occur for each of these approaches though, which is positive. The extent of these effects would be dependent upon the amount and nature of the sites that came forward.

Settlement Area 2 – Commercial Core

The majority of the Commercial Core does not fall within a LCT, however a section of land in the west of the Settlement Area, at Bidston Moss, lies within the Fender River Floodplain LCT. There are several employment sites that will directly form part of this Urban Fringe, however much of the development in particular Wirral Waters is not within this character

type. Further allocations in Option 1A/1B are located towards the mouth of the East Float and River Mersey. The Hamilton Square Conservation Area is within close proximity to proposed site allocations. This is likely to have **significant positive effects** on the landscape character and it is also noted that there are several Listed Buildings close by to the proposed developments.

Options 2A, 2B and urban expansion to Eastham will not affect the Commercial Core as there no further site allocations proposed in this Settlement Area.

Settlement Area 3 – Suburban Birkenhead

This Settlement Area consists mostly of built-up areas, and therefore there is limited sensitivity. Though there is greater sensitivity at the urban fringes, no growth is proposed in these areas for any of the options.

Option 1A/1B only proposes very few sites within Suburban Birkenhead, though there is a wider pool of potentially available sites in the longer term. Development would be on brownfield sites, which is potentially positive with regards to the townscape. However, the scale of growth involved is relatively small, and so only **minor positive effects** are predicted.

Options 2A, 2B and urban expansion to Eastham will not affect the Suburban Birkenhead as there no residual allocations proposed in this Settlement Area. It is likely that there would be minimal development in the urban area should potential housing sites in the area prove undeliverable. Therefore, **neutral effects** are predicted.

Settlement Area 4 – Bromborough and Eastham

Several brownfield sites are proposed in the urban area for Options 1A and 1B. Presuming the sites are delivered, there could be **minor positive effects** in terms of townscape, as several of these sites are of low environmental quality.

Option 2A could involve the release of Green Belt land. The 'shortlisted' site that is proposed for this option lies to the south of Eastham. Though this is open space, it has clear boundaries with the M53 and makes a weak contribution to the Green Belt. Therefore, development is predicted to have **minor negative effects** on landscape.

Option 2B (Heswall urban expansion) has neutral effects as no growth is involved in settlement area 4.

Urban expansion at Eastham could have a more **significant negative effect** as a loss of multiple parcels of Green Belt could lead to coalescence between built up areas as well as having effects on visual amenity and open space.

It is therefore likely that the character of landscapes will be affected negatively. Development is most likely to affect local amenity rather than lead to significant effects in terms of coalescence and the loss of sensitive land. It is also likely that strategic green infrastructure would be involved given the large scale nature of the sites. However, it is considered that a **minor negative effect** would remain. The choice of sites and dispersed nature of development should mean that no significant effects in any one location are likely.

Settlement Area 5 - Mid Wirral

There are several proposed housing allocations within Mid Wirral for Options 1A and 1B. This is likely to have **minor positive effects** as it limits pressure on Green Belt land and proposes areas that are of a derelict / vacant and/or low quality nature with minor contributions to the overall townscape. Redevelopment of these sites is likely to have positive effects on townscape.

Option 2B (Heswall urban expansion) and an urban expansion at Eastham will both have no further effects as there are no residual site allocations within the Settlement Area. However, it is presumed the deliverable sites in the urban area would still come forward, which is of benefit. This is also the case for Option 2A, although this would also involve some growth in the Green Belt on land with local amenity value. **Minor negative effects** are predicted in this respect.

Settlement Area 6 – Hoylake and West Kirby

There are no sites proposed for housing growth in Hoylake, so effects are neutral in this area.

There are several sites proposed in the urban area of West Kirby for Options 1A and 1B. Development of some would lead to improvements in the townscape as they involve brownfield land and poor quality environments. However, several sites contain areas of green / open space which adds value to the townscape. Development could have some **minor negative effects** in this respect depending upon layout and design.

Option 2A proposes additional / residual development on Green Belt land to the south-east of West Kirby. Though this parcel has been identified as making a weak contribution to the Green Belt, it provides an area of open green space between Caldy and West Kirby. Potential **minor negative effects** are predicted as the site is relatively well screened and landscaping ought to be possible to ensure that effects are not significant.

Option 2B (Heswall urban expansion) and an urban expansion at Eastham does not involve any residual growth in this settlement area and so **neutral effects** are predicted in this respect. Should deliverable sites in this area still come forward, then the effects associated with option 1A would also occur.

Settlement Area 7 – Heswall

There is limited development in the urban area for Options 1A/1B and therefore **neutral effects** are predicted in terms of townscape and landscape.

Option 2A could involve multiple Green Belt sites around the Settlement Area of Heswall. Each is identified as having a weak contribution to the Green Belt and are not within 'open countryside' as such. Development is therefore more likely to have negative effects upon amenity value rather than leading to coalescence or major effects on important views. As such only **minor negative effects** are predicted overall.

Option 2B could have **significant negative effects** on the Landican And Thingwall Lowland Farmland LCT. This is because it proposes a large urban extension in Green Belt land east

off Heswall. To the west of Heswall, a large scheme could lead to coalescence with Barnston.

An extension at Eastham could lead to locally important open space being 'closed off' between Poulton and Brookhurst. For this urban extension, the strategic nature of development would likely involve substantial roles for green infrastructure and landscaping schemes. Therefore, the potential for mitigation and enhancement of the quality of land is possible. The residual effects may therefore be minor rather than significant. However, at this stage, a precautionary approach is taken, and significant effects are recorded for both urban expansion options.

Settlement Area 8 – Rural Areas

Development within Rural Areas would be more likely to have significant negative effects on landscape as much of the land is green belt and / or open countryside.

However, Option 1A/1B do not involve growth in the rural villages or countryside areas and therefore the effects are predicted to be **neutral** in this respect.

Though options 2A and 2B do involve development outside of the established Settlement Areas, the effects of this have been discussed under the relevant Settlement Area.

Overall effects

Option 1A/1B promote urban intensification, with the majority of growth focused to the east of the Borough and within the urban areas. A large number of the sites that would be involved for development are previously developed, and a notable proportion of these are also derelict / vacant and/or low quality in terms of the contribution they make to townscape. Redevelopment of these sites is likely to have positive effects on townscape. There would be limited changes to the character of the open countryside, but this a positive effect of the strategy which would reduce pressure for Green Belt land release.

Overall, **significant positive effects** are predicted, reflecting these factors.

There are a handful of sites on 'green' space in the urban settlements (for example in West Kirby), but development would not be on important recreational land or lead to coalescence between settlements. Nevertheless, these represent **minor negative effects** overall.

It will be important to ensure that the character of the River Mersey front is enhanced for any development that occurs along its banks. This will be visible from long distances in Liverpool. Provided that appropriate heights, scale and density are used, then positive rather than negative effects ought to be most likely.

The effects of Option 2A will depend upon the exact sites involved. However, there are likely effects of a dispersed approach regardless of which locations are involved. Though the sites that would be involved have all been identified as weak performing in terms of overall green belt contribution, they are all in the countryside outside of the urban area. It is therefore likely that the character of landscapes will be affected negatively. Development is most likely to affect local amenity rather than lead to significant effects in terms of coalescence and the loss of sensitive land. It is also likely that strategic green infrastructure would be involved given the large scale nature of the sites. However, it is considered that a **minor**

negative effect would remain. The choice of sites and dispersed nature of development should mean that no significant effects in any one location are likely.

Option 2B focuses growth into one large urban extension, with two possible locations identified. Whilst both consist of land that is considered 'weak' in terms of its contribution to green belt function, the combined effects of releasing all these parcels of land would most likely lead to **significant negative effects** in these two locations. To the west of Heswall, a large scheme could lead to coalescence with Barnston, whilst an extension at Bromborough / Bebington could lead to locally important open space being 'closed off' between Poulton and Brookhurst. For both urban extensions, the strategic nature of development would likely involve substantial roles for green infrastructure and landscaping schemes. Therefore, the potential for mitigation and enhancement of the quality of land is possible. The residual effects may therefore be minor rather than significant. However, at this stage, a precautionary approach is taken, and significant effects are recorded.

Should Green Belt development draw investment away from the urban areas to the east of the borough in particular, then the opportunities to achieve positive effects in these locations would be diminished also. This is the case for both options 2A and 2B and is a particular weakness of focusing solely or heavily on Green Belt release to meet a large proportion of housing needs.

However, there would still be an element of brownfield regeneration involved for these two options (on deliverable attractive sites) as well as notable employment development. Whilst the benefits would be less pronounced compared to Options 1A/1B, there would still be **minor positive effects** in terms of enhancements to the townscape.

Climate Change adaptation

Wirral Waters

Some of the land surrounding Wirral Waters lies within flood zone 2 and 3. However, all development has gone through the planning process and high level flood risk assessments have been carried out on the site. Therefore, it is expected that mitigation measures will be in place to address any issues. Overall this is likely to result in **neutral effects** on future flood risk through sensitive and innovative planning, development layout and construction methods.

Settlement Area 1 – Wallasey

Though some potential development sites are adjacent to flood zones 2 and 3 there are no significant flood risks at any of the potential sites for development in Wallasey. For each of the options a **neutral effect** is predicted with regards to new development not being located in flood risk areas. It is presumed that policy measures will be implemented (i.e. SUDs and appropriate drainage and wastewater connections) that manage potential effects of development on the wider network.

Settlement Area 2 – Commercial Core

Options 1A and 1B propose housing sites in the Commercial Core, the majority of which do not fall within flood risk areas. However, there are two important / large sites that overlap

with Flood Zone 2 and 3 (SHLAA 4078, 0752) and / or notable areas of surface water flooding. Despite the need to implement mitigation measures, this is a potential **significant negative effect** that needs to be recognised.

It is presumed that policy measures will be implemented (i.e. SUDs and appropriate drainage and wastewater connections) that manage potential effects of development on the wider network.

Options 2A, 2B and an urban expansion of Eastham do not propose any residual growth to settlement area 2 and so **neutral effects** are predicted.

Settlement Area 3 – Suburban Birkenhead

Within the Suburban Birkenhead Settlement Area, all of the potential development sites fall within flood zone 1, with only several sites being adjacent to flood zones 2 and 3. There are some sites that fall within areas at risk of surface water flooding, but not to a significant extent. Therefore, **neutral effects** are predicted overall.

It is presumed that policy measures will be implemented (i.e. SuDs and appropriate drainage and wastewater connections) that manage potential effects of development on the wider network.

Options 2A, 2B and an urban expansion of Eastham do not propose any residual growth to Settlement Area 3, therefore **neutral effects** are predicted too.

Settlement Area 4 – Bromborough and Eastham

For Options 1A and 1B sites available for development in Bromborough and Eastham are largely within flood zone 1. The exception is site SHLAA 2072, which falls entirely within flood zone 2/3. This is identified as a 'potential extra housing site', and so might not necessarily come forward for these options. However, a potential **significant negative effect** is identified at this stage given that residential development within flood zone 3 is not ideal.

It could be possible to minimise the effects by incorporating SuDs and green space within the development.

The effects in terms of local surface water drainage are unlikely to be significant given the relatively low level of growth involved and the need to secure mitigation (SuDs etc).

Option 2A initially identified a range of sites that could be involved at the periphery of the urban area. The majority of development would be situated to the south and to the west of Bebington, with some exhibiting limited risk of flooding, whilst others are intersected by watercourses and therefore parts of the sites fall within flood zone 2 and 3 (Clatter Brook, Dibbinsdale Brook and Raby Mere). There are areas of surface water flooding concern on each of the sites also to differing extents. However, the scale of the sites should mean that where flooding is an issue, it is possible to avoid such areas. There should also be good opportunities to design developments that mimic natural drainage patterns and ensure no net increase in run-off. The 'shortlisted' sites for option 2A (i.e. those considered most likely to come forward), only involves one parcel of land to the south of Eastham. The site area is within flood zone 1 and has relatively low levels of surface water flood risk. Consequently, a **neutral effect** is predicted overall for this option.

Option 2B could involve no residual growth in this settlement area should urban expansion be centred on Heswall. In this situation, a **neutral effect** is predicted.

The other approach would be for urban expansion to the south and east of Eastham and Bromborough. In this location, some sites intercept a number of watercourse (Clatter Brook, Dibbinsdale Brook and Raby Mere) that lie within flood zone 2 and 3. However, there is sufficient flexibility to avoid these areas. There should also be good opportunities to implement drainage solutions that mimic natural systems.

The scale of growth required is unlikely to lead to significant changes to surface water runoff, particularly given that areas of green space would remain between new development and areas of flood risk. It is presumed that SUDs would be incorporated into development, which would limit negative effects upon hydrology locally and downstream.

Settlement Area 5 - Mid Wirral

Sites within mid-Wirral have a mixed risk of flooding. The River Fender, Arrowe Brook and Greasby Brook all run through settlement area 5.

Option 1A and B propose a number of small sites within the built up areas that do not fall within flood zone 2 and 3, or there are very small overlaps. As a result, the potential for negative effects with regards to new development being at risk of flooding is low. There are some exceptions though. SHLAA 2068 in Moreton is proposed for housing, and is entirely within flood zone 2 and 3. There is also associated employment uses in this location, but this may be an appropriate use. Likewise, SHLAA 1472 also falls entirely within flood zones 2/3.

Though there will be an element of mitigation required and other policy measures to reduce flood risk, a **minor negative effect** is predicted nonetheless.

In addition to deliverable sites in the urban area, Option 2A could involve the release of Green Belt land at Saughall Massie which overlaps with areas of flood zone 2 and 3.

Although significant effects could be avoided through the implementation of adequate and sustainable drainage systems, there could be **minor negative effects**. If the site avoids the areas of flood risk though (which is likely), then **neutral effects** are predicted.

Option 2B (Heswall urban expansion) and urban expansion of Eastham both propose no growth to mid-Wirral, therefore **neutral effects** are predicted.

Settlement Area 6 – Hoylake and West Kirby

A large section of settlement area 6 falls within flood zone 2 and 3. This is mainly land surrounding Hoylake and the coastal areas along Liverpool Bay and the River Dee. No substantial development is involved at Hoylake though for any of the options.

Option 1A and Option 1B both propose sites within the current built up areas of West Kirby, which all lie within flood zone 1. The effects are therefore **neutral** in this respect. There is some risk of surface water flooding, but this is for a 1 in 1000 year event. Mitigation and policy measures (SuDs requirement for example) should ensure that effects can be managed. In terms of effects on the wider drainage network and hydrology, the cumulative effects are predicted to be **neutral**.

There are two weakly performing green Belt parcels at West Kirby. A large site is identified with developer interest to the south east of the settlement area (parcel 6.15 in the Council's Option 2A). This falls within flood zone 1, and so neutral effects are predicted in this respect.

The Green Belt parcel involves areas that are at risk of surface water flooding, but it is presumed that SuDs would be incorporated into development, which would limit negative effects upon hydrology locally and downstream. Consequently, **neutral effects** are predicted overall.

Option 2B (Heswall urban expansion) and urban expansion of Eastham both propose no growth to settlement area 6, therefore **neutral effects** are predicted.

Settlement Area 7 – Heswall

Option 1A and Option 1B proposes low levels of dispersed urban growth within the built-up Settlement Area. There are no proposed sites that cross over with flood zone 2/3 and so **neutral effects** are predicted in this respect. There are some areas at risk of surface water flooding, but the overall level of growth is small scale, and so cumulative effects are likely to be negligible. There is also a need to implement SuDs and flood risk mitigation measures.

Option 2A proposes a substantial amount of development on Green Belt land surrounding Heswall at several locations. The majority of the sites do not overlap with flood zones 2 and 3. However there is one particular site to the north west of the Settlement Area that lies within flood zone 2 and 3 due to Arrowe Brook passing through the site. Due to the size of the site, it is likely that there ought to be sufficient land available to totally avoid areas of flood risk, whilst the requirement for SuDs should ensure that wider flood risk issues are addressed. Therefore, whilst the potential for negative effects exists, these are considered unlikely and minor in nature.

Option 2B could involve a large amount of urban expansion on Green Belt land to the east of Heswall. Small parts of this location are at a risk of flooding from Prenton Brook, as well as there being pockets of surface water flood risk throughout the site. The strategic nature of development should allow for these areas to be avoided though and for SuDs to be incorporated that ensure no net increase in surface water run-off or flooding. Consequently, a **neutral effect** is predicted overall for this option.

The overall level of growth involved could potentially lead to changes in hydrology. However, it ought to be possible to incorporate SuDs that mimic natural drainage patterns given their size.

Settlement Area 8 – Rural Areas

Option 1A and Option 1B propose minimal development in the rural areas. There is one location (SHLAA 2050) that is identified as a potential additional housing site. This site, which falls just outside of Bebington, intercepts with Clatter Brook, and therefore involves areas of flood risk 2/3. The site is of a scale whereby the areas of flood risk should be possible to avoid, but this would take out a fairly large proportion of the developable area of the site. Furthermore, the flood risk zone cut all the way through the site, and so it may be harder to totally avoid areas of development being at risk of flooding. There will be a need to implement SuDS, and so overall an uncertain **minor negative effect** is predicted.

Option 2A proposes no growth to the villages in settlement area 8, therefore **neutral effects** are predicted.

Option 2B proposes no growth to the villages in settlement area 8, therefore **neutral effects** are predicted.

Overall effects

Options 1A/1B involve dispersed growth in the urban areas on mostly brownfield land. In this respect, new development is unlikely to substantially alter drainage patterns, as it will not result in wholesale changes in the amount of hardstanding. The majority of sites identified for residential development are within flood zone 1, and so neutral effects are predicted in the main. However, some important sites fall within flood zones 2 and 3 and/or are affected by surface water flooding:

- SHLAA 2068 in Moreton is proposed for housing, and is entirely within flood zone 2 and 3. There is also associated employment uses in this location, but this may be an appropriate use.
- SHLAA 0752 overlaps with significant areas of flood zone 2 and 3.
- Site 4078 is heavily affected by surface water flooding.

These sites will place residents at risk of flooding, and therefore significant negative effects are possible in these locations. Mitigation measures would clearly need to be secured to ensure that development is appropriate.

Overall, **minor negative effects** are predicted with regards to flooding. The majority of new development would be in areas that are not at risk of flooding and would not increase flood risk elsewhere. However, there are some important exceptions where significant flood risk exists.

Development throughout the urban areas should present an opportunity to introduce urban greening measures, which can help with climate change resilience for wildlife and human health. This could be particularly beneficial for more built up areas such as Birkenhead and Wirral Waters, in terms of helping to reduce a potential heat island effect. However, these benefits would be reliant upon such measures being incorporated into new development. Given the lack of space and the intensification involved in the urban areas, it is unclear the extent to which urban greening will be achieved. Therefore, uncertain **minor positive effects** are predicted.

Option 2A involves dispersed growth on greenfield land. A range of potential sites are identified, with some exhibiting limited risk of flooding, whilst others are intersected by watercourses and therefore parts of the sites fall within flood zone 2 and 3. There are areas of surface water flooding concern on each of the sites also to differing extents. The scale of the sites should mean that where flooding is an issue, it is possible to avoid such areas. There should also be good opportunities to design developments that mimic natural drainage patterns and ensure no net increase in run-off. Consequently, a **neutral effect** is predicted overall for this option.

Option 2B will have similar effects to Option 2A. The potential urban extension to Heswall is at risk of flooding from Prenton Brook, as well as there being pockets of surface water flood risk throughout the site. The strategic nature of development should allow for these areas to be avoided though and for SuDs to be incorporated that ensure no net increase in surface water run-off or flooding. Consequently, a **neutral effect** is predicted overall for this option.

An urban extension at Eastham exhibits similar characteristics, and therefore the effects would be the same as for Option 2B.

For both Green Belt approaches, a loss of greenfield land could reduce the ecosystem services associated with natural and semi natural land (such as food management, reduction in urban heating, ecological corridors. Therefore, in terms of wider resilience to climate change, the effects are possibly negative. However, this depends upon the extent of enhancement measures that are secured though and whether net gain is actually achieved. **Neutral effects** are predicted at this stage.

Water Resources

Within the Borough, there are four wastewater treatment works (WwTWs).

- North Wirral (Meols) – Off-shore discharge into Liverpool Bay
- Birkenhead – Discharge to River Mersey
- Bromborough – Discharge to River Mersey
- Heswall – Discharge to River Dee

There is an assumption that development under any of the options will be able to connect to the existing infrastructure without generating significant effects on headroom in the long term. However, this needs to be confirmed.

Wirral Waters

Development in this location is anticipated given that there is already outline permission for substantial growth. It is presumed that drainage and waste water issues are addressed and can be accommodated. Therefore, neutral effects are predicted in relation to each option. However, the scale of growth in this location is important to take into consideration should further development be proposed that puts additional pressure on water networks.

Settlement Area 1 – Wallasey

The effects upon water resources will be mostly dependent upon the ability to manage waste water and drainage requirements resulting from new developments. In terms of water quality, there are no WwTW's within the settlement area. There are also no main river watercourses. However there are designated bathing waters within Wallasey. The score for the condition of the bathing waters is 'Good'. Most designated bathing water areas have demonstrated consistently 'Good' or 'Excellent' quality water over a four- year period and it is not expected that this will change in the short – medium term.

It is predicted that Options 1A/1B will have **neutral effects** on water quality given the scale of growth for Wallasey is quite minor.

Options 2A/2B/ urban expansion of Eastham should all not directly affect water resources within Wallasey as there are no residual site allocations proposed in this Settlement Area.

Settlement Area 2 – Commercial Core

There is one WwTw within the settlement area (Birkenhead WwTw). New development is therefore likely to put pressure on and be serviced by this facility.

Option 1A/1B propose additional growth in this area, which in combination with Wirral Waters could require upgrades to the drainage and wastewater networks. These issues will need to be explored, and so uncertain effects are predicted.

Options 2A/2B/ urban expansion of Eastham will not directly affect water resources as there are no residual site allocations proposed in this Settlement Area. Therefore **neutral effects** are predicted.

Settlement Area 3 – Suburban Birkenhead

In terms of water quality, there are no WwTw's within the settlement area, however there is a watercourse to the west of the Settlement Area, the River Fender. Option 1A/1B proposes a small amount of sites within the Settlement Area, so pollution due to surface water run off into watercourses is unlikely to be an issue. Though there are no treatment facilities in the settlement area, there is an existing network that new development can connect to. Given that the scale of growth is fairly low, the effects are considered likely to be minor.

Options 2A/2B/ urban expansion of Eastham will not directly affect water resources as there are no residual site allocations involved at this Settlement Area. Therefore **neutral effects** are predicted.

Settlement Area 4 – Bromborough and Eastham

There is one WwTw within the settlement area (Bromborough WwTw). New development is therefore likely to put pressure on and be serviced by this facility. Each option will involve substantial employment land development, which may have some effect upon water quality. However, these effects are uncertain and will need to be explored.

Option 1A/1B propose additional housing growth in this area, but at a scale that is unlikely to have implications for water quality.

Option 2A involves additional residual growth on Green Belt land, but the scale involved is unlikely to have notable effects on water quality.

Option 2B involves no residual growth in settlement area 4.

Urban expansion to Eastham would be at a scale that would be likely to have effects upon the water treatment network. The effects are uncertain and would need to be explored in terms of headroom.

All Green Belt options involve land in agricultural use. A change in use to residential development could reduce nitrate pollution in surface water run-off, which is a potential **minor positive effect** in the longer term (particularly for Option 2B and urban expansion at Eastham which both involve a larger amount of land).

Settlement Area 5 - Mid Wirral

Options 1A/1B propose additional housing growth in this area, but at a scale that is unlikely to have notable implications for water quality.

Option 2A involves additional residual growth on Green Belt land. The scale involved could potentially have effects with regards to wastewater treatment headroom (in combination with other developments), but this is uncertain.

Options 2B (Heswall urban expansion) and urban expansion of Eastham will not directly affect water resources on this location as there are no residual site allocations involved at this Settlement Area. Therefore **neutral effects** are predicted.

Settlement Area 6 – Hoylake and West Kirby

Options 1A/1B propose additional housing growth in this area (mostly West Kirby), but at a scale that is unlikely to have implications for water treatment (and thus water quality). Therefore **neutral effects** are predicted.

Option 2A involves residual growth at West Kirby which is at a greater scale compared to the individual and combined sites under Option 1A/1B. It should be possible to connect to existing infrastructure without causing significant effects, but these issues would need to be explored. Therefore, uncertain effects are predicted. Some of the developable land is currently in use for agriculture and so a change in use could potentially be positive in the longer term with regards to reduced nitrate run-off.

Options 2B (Heswall urban expansion) and urban expansion of Eastham will not directly affect water resources as there are no residual site allocations involved at this Settlement Area. Therefore **neutral effects** are predicted.

Settlement Area 7 – Heswall

Option 1A/1B propose additional housing growth in this area, but at a scale that is unlikely to have implications for water quality.

Option 2A involves additional residual growth on Green Belt land. The scale involved could potentially have effects with regards to wastewater treatment headroom, but this is uncertain.

Option 2B could involve urban expansion to Heswall at a scale that would be likely to have effects upon the water treatment network. The effects are uncertain and would need to be explored in terms of headroom.

All Green Belt options involve land in agricultural use. A change in use to residential development could reduce nitrate pollution in surface water run-off, which is a potential **minor positive effect** in the longer term (particularly for Option 2B which involves a larger amount of land).

Settlement Area 8 – Rural Areas

No growth is proposed at the villages within the rural areas and so **neutral effects** are predicted for all options.

Overall effects

The impacts upon water resources will be dependent upon the ability to manage waste water and drainage requirements resulting from new developments. There is an assumption that development can be supported, but this will need to be confirmed with utilities providers regardless of the spatial approach that is taken. At this stage, uncertain effects are predicted for each option in this respect.

With regards to longer term water quality, it is possible that a change in land use from agricultural to residential can reduce the levels of nitrate pollution. In this respect the Green Belt options could have **minor positive effects**, but this carries a degree of uncertainty.

Biodiversity and nature conservation

Wirral is unique in comparison to other localities as it has significant biodiversity designations in both coastal and non – coastal environments. It is important to ensure development which happens on the land, does not adversely affect the surrounding coastal environments.

In saying this there are currently no Marine Conservation Zones (MCZ) or National Nature Reserves (NNRs) within the locality. The SSSI's on the land are found within Settlement Areas 4, 7 and 8. The other settlement areas have significant biodiversity designations surrounding the coastline. A Habitats Regulations Assessment has been undertaken with consideration given to the potential significant effects that could arise for each of the spatial options.

Wirral Waters

There is a large amount of growth assumed for Wirral Waters, which is in line with the outline planning permission granted of this area. It is likely that development of this scale will come forward in a number of phases across the plan period, which has the potential to reduce the negative effects throughout the lifetime of the plan, but staggering the level of growth.

Though development at this strategic location is agreed in principle and mitigation is presumed to be suitable, increased growth in surrounding areas has the potential to combine with the effects of Wirral Waters. It is therefore an important consideration when exploring the effects of the spatial options upon biodiversity.

Growth along the River Mersey could potentially disturb species movement and/or impact the wildlife corridor function of the River Mersey. There are also areas of SPA (special Protection Area), SAC (Special Area of Conservation) and SSSI (Mersey narrow) and Ramsar site along the River Mersey, which are most likely to be affected by development at higher levels of growth.

Settlement Area 1 – Wallasey

Option 1A / 1B, propose a fairly low level of growth in the urban areas of Wallasey (though this could be higher if the 'potential additional housing sites' are proved to be deliverable. Some of the sites involved are near to the coast adjacent to sensitive habitats, but they are already built up and are small scale. Development would therefore not be anticipated to have a significant negative effect on biodiversity in the long term, and so **neutral effects** are predicted.

Options 2A & 2B propose no residual growth to the Wallasey area. Therefore **neutral effects** are predicted also.

Settlement Area 2 – Commercial Core

Option 1A and 1B propose several housing sites for development within the Commercial Core settlement area.

This involves a higher level of growth that would necessitate the development of all the proposed brownfield sites, at a high density within and adjacent to the current built up area.

This would likely involve sites to the east of the commercial core nearby to the River Mersey, which could affect water quality and / or disturb species reliant upon the water environment. There is also a SPA and SSSI along the Mersey that could be effected by this higher level of growth. Significant effects ought to be possible to avoid though provided that enhancement measures are secured, and development is not concentrated in one location (i.e. all to the west / all to the south). At this stage, **minor negative effects** are predicted.

Options 2A, 2B (Heswall urban expansion) and urban expansion of Eastham do not propose any residual growth to the commercial core, and would involve a lower amount of growth in the urban areas, potentially avoiding negative effects. Therefore **neutral effects** could be predicted, but there is an element of uncertainty.

Settlement Area 3 – Suburban Birkenhead

There are a number of Biodiversity Action Plan areas within Suburban Birkenhead, mainly deciduous woodland and lowland heathland which could contain a variety of species. Development of a large scale could potentially lead to negative effects on wildlife that relies upon these habitats. However, development at such a scale would allow for the incorporation of substantial areas of green infrastructure which should draw people away from the more sensitive areas with regards to recreation.

Option 1A and 1B propose growth to Suburban Birkenhead in brownfield locations. In the main, the biodiversity value of sites is relatively low and so development ought to be positive if net gain is secured. It is unlikely that this will occur on site for many sites though given their brownfield nature and small scale. It would be beneficial to identify appropriate off-site schemes that contributions can be sought towards improvement. There are one or two sites that overlap with BAP habitats, but these are along site edges and could be avoided / enhanced. Overall, **neutral** or **minor positive effects** are predicted.

Options 2A, 2B (Heswall urban expansion) and urban expansion of Eastham propose no residual growth to suburban Birkenhead, therefore **neutral effects** are predicted.

Settlement Area 4 – Bromborough and Eastham

Option 1A / 1B propose fairly low levels of housing growth in the urban areas. The sites involved do not contain any characteristics or features that support biodiversity, and so in this respect neutral effects are predicted.

It may be problematic to secure net environmental gain on these sites, so it would be useful to identify opportunities for enhancement in other parts of the settlement area to ensure that benefits can be achieved relatively local to the sites. In the longer term though, it would be expected that **minor positive effects** could arise.

Option 2A involves dispersed growth on weak performing Green Belt parcels. Some of the sites initially identified are sensitive as they contain ancient woodland / BAP habitats. Development here therefore presents the potential for significant negative effects. However, only one site is identified in the Council's 'final Option 2A'. This falls to the south of Eastham, and though it contains BAP habitat (deciduous woodland) this is not ancient woodland. The strategic nature of a development here should allow for important habitat to be avoided and mitigation put in place. However, a degree of disturbance is likely to occur,

which is a **minor negative effect**. In the longer term, if suitable net gain / enhancement is achieved on site (or in the wider settlement area through contributions), then a **minor positive effect** is predicted.

An urban expansion to Eastham would overlap considerably with BAP habitat and ancient woodland. The large scale of growth would therefore present potential for **significant negative effects** in terms of disturbance and potential loss of habitat. In the longer term, it ought to be possible to secure net gain / enhancements given the strategic nature of the site, but this cannot be assumed to be successful and may not be like for like. Therefore, a residual **minor negative effect** may remain as well as there being opportunities for **positive effects**. The sites in this location are less likely to be used as functional land for SPA/SAC species, and so the effects in this respect would not be anticipated to be significant.

All the options involve significant amounts of employment growth close to the Mersey Estuary and this presents the potential for disturbance to associated species. This is a potentially **significant negative effect** that will need to be addressed.

Settlement Area 5 Mid Wirral

The main biodiversity assets located in mid-Wirral are the coastal and floodplain grazing marshes to the north of the settlement. Small pockets of deciduous woodland are also present throughout the urban areas and countryside.

Option 1A and 1B propose growth on brownfield sites that do not overlap with such biodiversity assets and due to the nature and scale of the sites are unlikely to result in significant negative effects. Given the requirement for biodiversity net gain, the overall effects ought to be positive as the starting position on the sites is not likely to be of great value. However, it may be difficult to secure on-site improvements due to development land requirements. It would therefore be useful to identify enhancement opportunities offsite such as connecting deciduous woodland and enhancing floodplain marshes.

Overall, **neutral** or **minor positive effects** are predicted.

Option 2A proposes a similar level of growth as 1A and 1B, however the site is larger in scale and development is concentrated on the outer periphery of the settlement areas. The proposed Green Belt release parcels do not overlap with areas of biodiversity sensitivity, but could support SPA/SAC species. Therefore, potential **minor negative effects** are predicted. There would be a need to address any negative effects though and to ensure net gain, so the residual effects might be different.

Options 2B (Heswall urban expansion) and urban expansion of Eastham do not propose further growth to settlement area 5, therefore **neutral** effects are predicted.

Settlement Area 6 – Hoylake and West Kirby

There are a number of biodiversity assets in Settlement Area 6. Growth along the Liverpool Bay could potentially disturb species movement and/or impact the wildlife corridor function of the Bay. There are also areas of SPA (Special Protection Area) and SSSI (Dawpool Bank and Salisbury Bank) and Ramsar sites along Liverpool Bay, which are most likely to be affected by development at higher levels of growth. There are also some inland assets which mainly consist of coastal sand dunes and coastal/ floodplain grazing marshes.

Option 1A / 1B proposes some small-scale growth to this settlement area. This is all at West Kirby on small/medium scale sites.

The proposed sites are located inland and not along the coast which minimises potential negative effects on these biodiversity assets. However, increased recreational pressure will need to be managed even at lower levels of growth. The potential for on site enhancement will be problematic at smaller brownfield sites, but equally, negative effects on biodiversity are unlikely on these sites. In this respect **neutral effects** are predicted. It would be beneficial to identify enhancement and mitigation measures within the settlement area as alternative ways to achieve net gain where on site measures are not appropriate. This could lead to **minor positive effects** in the longer term.

Option 2A proposes the release of Green Belt parcels to the south of West Kirby. The area involved contains parcels of lowland health land and deciduous woodland, and is adjacent to a more significant wooded area. The potential for **negative effects** therefore exists, as there could be disturbance to species (light pollution / noise / domestic animals) and increased recreational pressure. Additionally, this area is within fairly close proximity to the SSSI, SPA and SCA. The HRA identifies that recreational pressure could potentially give rise to **negative effects** particularly given the scale of growth involved. With appropriate avoidance and mitigation these effects ought to be possible to minimise so significant effects should be avoidable. Enhancement on site should also be possible, with the potential to expand / strengthen areas of deciduous woodland for example. Given the need to achieve net gain on site, then the longer term effects could be **positive**. However, there is uncertainty at this stage.

Options 2B (Heswall urban expansion) and urban expansion of Eastham do not propose residual growth to Settlement Area 6, therefore **neutral effects** are predicted in respect of biodiversity in this location.

Settlement Area 7 – Heswall

Option 1A /1B proposes limited additional development across the settlement area. The sites involved are small in scale and do not overlap any biodiversity assets. As a result the effects are predicted to be **neutral**. However, the small scale brownfield nature of the sites means that on-site enhancement / net gain may also be problematic.

Option 2A proposes dispersed release of Green Belt parcels. The location of the site options in these areas is unlikely to have a significant effect upon designated sites. However, several parcels contain BAP habitats (deciduous woodland). Development has the potential to cause disturbance to habitats and species here. This could be localised effects on wildlife through the loss of trees and hedges for example, or disturbance. However, the potential for mitigation and enhancement through new development would be higher too. The residual effects are therefore predicted to be **neutral**. Several parcels are identified in the HRA as potentially involving functionally linked land (for SPA/SAC species), this represents the potential for **significant negative effects** that will need to be explored further in the HRA.

For Option 2B, the development east of Heswall overlaps less dramatically with BAP habitat, and therefore, enhancement is more likely to be achieved on site. For example, by reducing the developable land on the site and including green spaces and woodland retention on the

sites, which could bring forward benefits for local habitats and species. Taking the above factors into account, **minor positive effects** are predicted to reflect the potential to improve ecological value on green belt sites in this part of the borough. However, a loss of potential functionally linked land (for SPA/SAC species) will mean that avoidance, mitigation and offsite compensation may also need to be secured. This is a potential **significant negative effect** that will need to be explored through the HRA.

Settlement Area 8 – Rural Areas

Option 1A / 1B does not propose any growth in the villages within the rural areas, therefore **neutral effects** are predicted.

Though Green Belt parcels are located in the rural areas, the effects of this for options 2A and 2B are discussed above at each of the urban settlement areas.

Overall effects

Wirral is unique in comparison to other localities as it has significant biodiversity designations in both coastal and non – coastal environments. It is important to ensure development which happens on the land, does not adversely affect the surrounding coastal environments.

In saying this there are currently no Marine Conservation Zones (MCZ) or National Nature Reserves (NNRs) within the locality. The SSSI's on the land are found within Settlement Areas 4, 7 and 8. The other settlement areas have significant biodiversity designations surrounding the coastline.

There are common elements to each of the spatial options that are likely to generate negative effects with regards to the biodiversity.

Of particular note is that the majority of the employment sites are located in waterside locations, along the River Mersey and Liverpool Bay. The majority of these sites are close to a number of biodiversity assets and are at risk of having negative effects upon these assets along with species natural habitats. Though development will be required to avoid and mitigate effects and ultimately achieve net gain, the potential for negative effects does exist.

Each option performs differently in relation to impacts upon local settlement areas across the borough, how new development can bring forward local benefits to the green infrastructure and local species

Option1A promotes urban intensification, by developing urban sites and by increasing densities across all the settlements in Wirral. The locations that option 1A focuses on are a mix of urban and waterside locations that fall within the impacts zones for the River Mersey SSSI, SOA and SCA, along with sites in the Liverpool Bay impact zones. The majority of sites are brownfield, most of which are thought to have limited value, but others that may be rich in species and natural habitats where natural regeneration has occurred.

It is anticipated that permanent effects on biodiversity should be avoidable, but it will be important to manage disturbance and pollution that could affect waterside environments in particular. This leaves a question mark over the potential for **negative effects**.

In terms of functionally-linked land, the HRA concludes that the urban housing sites are likely to offer limited value, and so **neutral effects** in this respect are predicted.

The majority of the remaining housing sites are small – medium in scale and dispersed throughout the borough, which is likely to minimise the opportunities to enhance and connect the green infrastructure network through onsite improvements alone. In this respect, only **minor positive effects** are predicted.

Larger site options may be able to deliver some strategic green infrastructure improvements, which can help with wildlife and biodiversity enhancement. This could be particularly beneficial for more built up areas such as Birkenhead and Wirral Waters.

This option would also present potential **significant negative effects** associated with employment growth along the Mersey Estuary coastline.

Option 1B would have the same effects, but these would occur mostly in the longer-term. Biodiversity value may have increased on some urban in the longer term due to natural regeneration. Therefore, the potential for negative effects could potentially rise slightly, but there is uncertainty.

Options 2A, 2B and urban expansion at Eastham are less negative with regards to growth impacting on biodiversity in waterside locations. However, there are other locally important habitats present across the Borough that overlap with development opportunity areas. For some locations, a loss of greenfield land could also have potentially significant negative effects in terms of being functionally linked to the European Sites. Both options contain land that could provide this function, and so **significant negative effects** are recorded at this stage in this respect.

For **Option 2A** additional effects on local wildlife would depend upon the exact sites involved in a dispersed approach. However, the majority of identified parcels that could be involved do not overlap significantly with designated or biodiversity action plan habitats. The most likely issues with this option will relate to disturbance to adjacent habitats, and ensuring that net gain is achieved. Given that the developments are strategic in nature, this ought to be possible. However, a loss of potential functionally linked land will mean that offsite compensation may also need to be secured.

Taking the above factors into account, **minor to significant positive effects** are predicted to reflect the potential to improve ecological value on green belt sites across a number of locations across the borough (not just one such as the urban extensions). However, their use to support Ramsar / SPA / SAC species constitutes potentially **significant negative effects**. The choice of sites ought to provide some flexibility in avoiding the most sensitive locations and making the best out of opportunities for enhancement.

This option would also present potential **significant negative effects** associated with employment growth along the Mersey Estuary coastline.

Development at an extension to Eastham would overlap substantially with some of the boroughs BAPs and ancient woodland. This presents the potential for negative effects upon these biodiversity assets, but given the large scale strategic nature of the site, it is possible that mitigation and enhancement could be secured. There is a question mark relating to this though, which reflects as **minor negative effects**. The potential for the land to be useful as functionally linked habitat is less likely in this location though, and so the effects are predicted to be **neutral** in this respect. There would still be growth along coastal locations with this option, particularly on employment land, and therefore **negative effects** are recorded in this respect too from a Borough perspective.

A development east of Heswall (**Option 2B**) overlaps less dramatically with BAP habitat, and therefore, enhancement is more likely to be achieved. For example, by reducing the developable land on the site and including green spaces and woodland retention on the sites, which could bring forward benefits for local habitats and species. However, a loss of potential functionally linked land will mean that avoidance, mitigation and offsite compensation may also need to be secured.

Taking the above factors into account, **minor positive effects** are predicted to reflect the potential to improve ecological value on green belt sites in this part of the borough. However, the use of such land to support Ramsar / SPA / SAC species constitutes potentially **significant negative effects** in this location.

This option would also present potential **significant negative effects** associated with employment growth along the Mersey Estuary coastline.

It should be noted that for each option, the potential for enhancement is mentioned. However, this has not been factored fully into the assessment, as there are no details at this stage as to what would be involved, and whether this would be achievable. This does not mean that significant or minor negative effects are a certainty though, as it is acknowledged several site options fall into areas that have been identified as green infrastructure enhancement areas.

Climate Change mitigation

The ability to deliver resource efficient and resilient developments ought not to be dependent upon location to a great extent. Therefore, the distribution of homes should have the same effects on emissions from the built environment regardless of location. Development in any location should also provide opportunities to introduce resilience measures such as green infrastructure, green roofs and SUDs. An important factor in achieving sustainable design is the viability of development, as this could make reductions in emissions harder to achieve. Therefore, site options with some constraints could be less likely to lead to lower carbon development. In this respect, **Options 1A / 1B**, which involve a lot of brownfield sites (with possible viability issues) could be less likely to achieve higher emissions reductions. Likewise, options that rely upon substantial infrastructure upgrades to be funded through development (such as **Option 2B**) may also be constrained in this respect.

Location can however, lead to differences in the amount of emissions from transport, and certain locations or types of sites (larger mixed-use with demands for heat) may also be more likely to support decentralised energy schemes. These factors are discussed below with regards to each option. The effects have not been broken down in terms of the settlement areas, as impacts in one area could offset those in another. Therefore, it is more appropriate to discuss the overall implications at a borough level for each option with regards to emissions and resilience. It should also be acknowledged though that the impacts within the Borough are interlinked with those in surrounding areas, as climate change is a cross boundary issue.

Option 1A promotes urban intensification, by developing urban sites and by increasing densities across all the settlements in Wirral. The locations that option 1A focuses on have good access to jobs, services and public transport. Therefore, new development should be less likely to generate long car trips (and associated emissions). This option would also limit further growth in less accessible locations.

Whilst there is no solid evidence to support decentralised energy schemes, the scale of some site options in the commercial Core and Birkenhead, and the higher heat demand in the urban area could make these locations more

Consequently, a **minor positive effect** is predicted overall for Option 1A in terms of carbon emissions and adaptation.

For **Option 1B** it is assumed that there is enough suitable, available and achievable capacity to meet all of the Borough's future development needs within the existing urban area but that it would not be possible to deliver sufficient homes for the first five years, the Local Plan may be allowed to follow a 'stepped approach'. This would mean the same amount of housing and employment would be delivered in the plan period, but with a lower proportion in the first five years.

Option 1B would still provide for all the Borough's new development to be accommodated within the urban area, in line with Option 1A but could allow the development required to be provided at a lower rate through the early years of the plan period, followed by a higher rate during the later years. Given that the efficiency requirements for new development will increase in the longer term, this ought to mean that the carbon emissions for this approach would be lower over the plan period compared to option 1A (hence a potentially **significant positive effect**).

Option 2A proposes the release of a series of medium to large sized weakly performing Green Belt parcels, which when added together would allow sufficient land to be allocated to meet any residual housing needs within the Plan period.

Depending upon the viability of individual sites, their greenfield nature could possibly present good opportunities to achieve higher standards of efficiency (through higher land values). However, this is an uncertainty. The peripheral nature of the site options is more likely to encourage car trips though, which would lead to a continuation or worsening of current trends with relation to emissions from transport.

The overall picture in terms of emissions is therefore likely to be **neutral** or **minor negative effects**.

A loss of greenfield land will also reduce the ecosystem services associated with natural and semi natural land (such as food management, reduction in urban heating, ecological corridors). Therefore, in terms of resilience, the effects are possibly negative. This depends upon the extent of enhancement measures that are secured though and whether net gain is actually achieved.

The alternative approach to dispersed release is to focus development more strategically into a single larger area around an existing settlement (**Option 2B**). This option still relies on the weakly performing Green Belt parcels but groups these together to identify a larger area for urban expansion. An extension at Heswall is thought to be more feasible than one at Bromborough / Eastwell and is therefore identified in the Council's Option 2B.

A large development at Heswall would be at the urban fringe. It is therefore likely to generate car trips, as it would allow relatively good access to the strategic road network. The majority of jobs growth is to the east of the Borough, and so in this respect, the length of trips (and associated emissions) would be expected to increase. The presence of a train station nearby would help to offset this somewhat, but the services are not particularly regular or quick. In terms of local services and facilities, a new well-planned extension should help to provide local access, which can encourage walking and cycling. This too

ought to offset an increase in emissions from car based travel. There are no identified options with regards to district heating, though in theory a large scale mixed use development ought to provide better opportunities for such schemes. Overall, a **neutral effect** is predicted. Whilst there may be some reductions in travel due to the provision of local facilities and the presence of a train station nearby, it is also likely that car emissions will continue to be important. It is uncertain whether higher standards of resource efficiency would be achieved, but the requirement for new roads and other social infrastructure to support a comprehensive development would make this less likely. Therefore, at this stage, uncertain effects are predicted.

Economy and Employment

Wirral Waters

Wirral Waters is a key employment centre as it is located in the commercial core, which is well connected to Liverpool on the other side of the Mersey river.

Over the years Wirral has diversified from chemical works and manufacturing. Today, Wirral has a notably lower proportion of residents employed in elementary occupations, and a higher proportion of employment in professional occupations, than at regional and national level. This area offers strong new employment potential especially through the development of Wirral Waters, which Wirral council has approved outline permission for a large amount of employment floorspace. There could be opportunities to link up new development with the existing and new employment centres, via public transport and improve the walkability between the two due to the proximity of the proposed new residential and employment sites. Provision of homes in the periphery could also help to tackle deprivation, should it help to provide accommodation for such communities along with increased job diversification. An increase in housing accommodation could also help to support students and young professionals wishing to locate in this area. Given that the principle of development is already established in this area, then the positive effects are already likely to be generated whether or not there is a new Local Plan in place. However, by re-confirming the Council's commitment to regeneration at this location as a key part of the spatial strategy, it is more likely that efforts will be focused here rather than on greenbelt land. Therefore, **minor positive effects** are predicted for all options.

Settlement Area 1 – Wallasey

There are two growth opportunities identified in the Strategic Regeneration Framework 2017 within Wallasey, these are New Brighton and Liscard. The delivery of homes in these areas should provide good access to jobs in the commercial core, and further afield should there be connections to the strategic road networks. However, access to a large proportion of these jobs outside of Wirral could rely on the private car, and so certain communities might not benefit.

Provision of homes to the edge of the Commercial Core could help tackle deprivation in the worst affected wards, should it help to provide accommodation and job opportunities to such communities. Housing provision close to the commercial core, Liverpool and surrounding employment hubs (for example Wirral Waters) could also help to improve graduate retention (access to higher quality jobs) and link to the economic growth in the 'maritime and logistics' and 'visitor economy' sectors related to the ongoing Wirral Waters regeneration.

Option 1A is likely to bring forward some scattered small scale development within the settlement area 1, which would have minor benefits with regards to an increase in local spending. It would also place workers in relatively accessible locations with regards to jobs. Overall, a **minor positive effect** is predicted reflecting these factors.

Option 1B proposes the same level of growth compared to option 1A above, and so the effects are the same but delivered in the longer term.

Options 2A, 2B (Heswall urban expansion) and urban expansion of Eastham deliver no growth within settlement area 1, which is unlikely to have a notable effect on the economy. Therefore, **neutral effects** are predicted.

Settlement Area 2 – Commercial Core Growth is likely to put additional pressure on the key transport arteries between Wirral and other regional centres, particularly Liverpool. It will be important that this growth is matched by associated infrastructure enhancements as necessary.

Wirral has notable potential for economic growth in the 'maritime and logistics' and 'visitor economy' sectors related to the ongoing Wirral Waters regeneration, which lies within the Commercial Core. Major projects at Wirral Waters which have either commenced or are committed include the MEA Park waterside manufacturing campus and the Maritime Knowledge Hub project, and the Enterprise Zone is already attracting new maritime industry employers, such as the state of the art Stream Maritime Training facility.

Option 1A proposes over half of the Borough's growth to the Commercial Core. Therefore there should be opportunities to link up new development with existing employment centres, via public transport enhancements. Provision of homes in the periphery would also help tackle deprivation, should it help provide accommodation for such communities along with increased job diversification. An increase in housing accommodation could also help to support students and young professionals looking to locate in this area. Overall **significant positive effects** are predicted.

Option 1B will bring forward the same level as growth as discussed in option 1A above, however, it is likely to be delivered over a longer period of time, in multiple phases (stepped approach). This is likely to reduce the number of dwellings released to the market on a yearly basis within the commercial core. Therefore, whilst significant positive effects are likely, these would be less likely in the short term.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham would all deliver no housing growth within settlement area 2, which is unlikely to have a notable effect on the economy. Therefore, **neutral effects** are predicted.

Settlement Area 3 – Suburban Birkenhead

Option 1A involves limited additional growth to settlement area 3. In general, this area struggles to provide local job opportunities for skilled workers, who rely on the neighbouring settlement areas or Liverpool for work. Therefore, growth in this location would be likely to result in greater levels/distances of commuting. Growth in the rural parts of Birkenhead would also do little to address regeneration, as the scale of development is low level. It would draw investment away from the more suitable locations for economic growth, such as the commercial core and Wirral waters. In this respect, the proposed approach is appropriate and positive. There are several housing sites identified that could help to provide accommodation in areas of deprivation. In particular SHLAA 1665 is located in an area of the 10% most deprived. A suitable development here could help to provide

affordable housing as well as possibly supporting open space improvements on a derelict former school site. In this respect, **minor positive effects** are predicted with regards to the economy.

A range of small scale additional housing sites are identified as potentially being available, but there is greater uncertainty about deliverability. Should these sites come forward as well, it is still likely that the effects would remain minor positives as they are small scale and unlikely to bring substantial infrastructure improvements or boost investment.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham would all deliver no growth within settlement area 3, which is unlikely to have a notable effect on the economy. Therefore, **neutral effects** are predicted.

Settlement Area 4 – Bromborough and Eastham

The Wirral Employment Land and Premises Study Final Report (2017) states that the Bromborough and Eastham market area is characterised as having better quality sites than the rest of Wirral both in terms of the strength of market demand and the general sustainability of the sites themselves. This aligns with the stakeholder consultations and site assessments which suggested that in general, the highest quality premises were located in Bromborough and Eastham. The quality of sites in the market area is primarily driven by its market attractiveness, the demand for space in Wirral International Business Park, and its excellent transport connectivity. All three options involve substantial employment allocations in this location, and are likely to generate significant positive effects in terms of the creation of jobs and investment.

Option 1A does involve a small amount of growth in this settlement area, but this is not proportionate to the employment opportunities that would be created. Therefore, only minor positive effects are generated in this respect.

Option 2A could involve dispersed development on a weak performing Green Belt parcel at the periphery of this settlement area (parcel 4.13). This parcel would be likely to have good access to the strategic road network and would have good links with employment opportunities being created here and further afield (albeit by car). There is therefore the potential for minor to significant positive effects depending upon the scale of growth in this location involved for the dispersed approach. At the scale of growth involved, it is likely that only one parcel of land would be released under a dispersed approach in this location. Therefore, **minor positive effects** are predicted in this respect.

Although not forming part of the Council's Option 2B, the Green Belt Study identifies a potential urban extension to the south and south west of this settlement area. Should this be brought forward successfully, there would be a strong link between new jobs and new homes, and potential investment in infrastructure improvements to support such growth. However, there are deliverability concerns, which means that such a scheme may be difficult to achieve. Reliance on this to meet a large proportion of housing needs in the borough could therefore be detrimental to the economy, which is recorded as an **uncertain negative effect**.

Settlement Area 5 - Mid Wirral

The Mid-Wirral market area covers the settlements of Greasby, Moreton, Upton and Woodchurch, which is predominantly residential in character. The majority of the employment sites are located in Moreton, in the Tarran Industrial Estate, or the adjacent

sites near to Burtons Biscuits and Typhoo Tea. The main industrial area in Upton is the Arrowe Brook Road Industrial Estate, which is separated into three separate parks – the Wirral Business Park, Arrowe Commercial Park and Champions Business Park. There are a variety of users on the Arrowe Brook Road Industrial Estate, from solicitors to large self-storage warehouses. The site is an important source of local employment in mid-Wirral and is readily accessible to the A-road Network and the M53 Motorway.

It is predicated there is some small-scale expansion predicted to come forward for some of the industrial sites within mid-Wirral. This is likely to bring forward some jobs for residents living within this settlement area (in areas of high deprivation), however due to the easy access to the road network, it is likely a large number of residents will also commute to other parts of Wirral for employment, mainly the commercial core and Bromborough and Eastham. Nevertheless, **minor positive effects** are likely due to employment land provision in areas of need.

Option 1A/1B proposes moderate levels of dispersed growth to the mid-Wirral settlement area, which could provide accommodation in close proximity to existing and proposed local job opportunities and with links to the commercial core via the A5139 and Bromborough and Eastham via the M53. This level of growth could support some infrastructure improvements and local spending. The larger scale sites to the north are within close proximity to Tarran Industrial Estate where the majority of the settlement areas potential expansion employment sites are located. Therefore, development is likely to support job growth in this location. Sites to the south of the settlement area are within close proximity to transport links leading to the commercial core where the majority of economic expansion will be located. Additionally, development of the small scale sites within the settlement area should help to support the economic hubs in the area. The scale of growth is relatively low though, and so overall, **minor positive effects** are predicted. To meet higher levels of growth under an urban intensification approach though, there could be a loss of certain employment land in the longer term. This is potentially a **minor negative effect** if sufficient space is not found to replace this (as required).

Option 2A (dispersed growth) would result in a higher level of growth to the surrounding area. It includes two weakly-performing green belt parcels adjacent to the Settlement Area (parcel refs 5.8 and 5.9) connecting additional greenfield sites to the built-up area, to the west. Parcel 3.4 to the south (not in the Council's Option 2A) is located close by to Arrowe Brook Road Industrial Estate, which is separated into three separate parks, however due to its limited expansion land, would be unable to accommodate a significant number of new employment opportunities. However, this site is directly linked to the main road network and would allow for easy accessibility via the car to the commercial core and other key employment sites across Wirral. In this respect, **minor positive effects** are likely. However, the locations for growth are less well related to areas of deprivation when compared to Option A.

The proposed sites to the West of the settlement area are not within close proximity to the main employment sites within the area, however there are a number of small local businesses dispersed throughout the settlement area and a number of sites have been identified and allocated for employment use in the future, but on a smaller scale than may be required to provide jobs to support this level of growth. It is likely that development in this location would lead to increased commuter distances/time to reach jobs within the economic hubs, such as the commercial core and Birkenhead. Transport links from this location are also not as strong as other locations in the settlement area, resulting in minor negative effects. Overall, it is likely that due to the moderate level of growth, employment expansion is

possible within fairly accessible and close proximity to the housing growth. Additionally, the sites are on the whole fairly well located to the major economic hub of the borough. Therefore, overall minor positive effects could be predicted.

Options 2B (Heswall urban expansion) and urban expansion of Eastham both deliver no residual growth within settlement area 5, which is unlikely to have a notable effect on the economy. Therefore, **neutral effects** are predicted.

Settlement Area 6 – Hoylake and West Kirby

The main industrial estate in the area comprises Carr Lane Industrial Estate in Hoylake. The employment units on the estate are generally older, of lower value and occupied by local businesses. Although wider development opportunities are limited, the Industrial Estate nevertheless remains a 'Key Local Area' providing employment opportunities for Hoylake, Meols and West Kirby residents, with few environmental constraints and good local access (although in strategic terms the Estate remains peripheral).

Housing growth can have positive effects on the economy through the support for construction workers, by providing suitable homes for a growing workforce, and through increased spending in the local economy such as in local centres. However, as with Mid-Wirral, this market area is predominantly a residential area rather than an employment area.

A higher number of homes would also generate increased Council tax, which could subsequently be returned into the local economy through provision of services.

Option 1A proposes fairly small amounts of growth to settlement area 6. The largest housing development site is located within the built-up area which is likely to have minor benefits with regards to an increase in local spending within the town centre. It would also place workers in relatively accessible locations with regards to existing jobs within the service and retail sector. However, in general, the smaller towns and villages already struggle to provide local job opportunities for skilled workers. Therefore, growth in these locations would be likely to result in greater levels / distances of commuting.

Growth in the rural areas would also do little to address regeneration, as most of these locations are affluent. It would also draw investment away from more suitable locations for economic growth such as the commercial core and Wirral Waters. Given that the growth in this settlement area is fairly limited, these negative effects would be avoided and so neutral effects are predicted in this respect.

Conversely, increased housing in these areas could help to support an increase in spending which ought to be positive for local businesses in these areas and provide accommodation for the local workforce in these areas. **Minor positive effects** are therefore predicted.

Option 2A (dispersed growth) would result in slightly higher levels of growth to settlement area 6, through large residential sites at the south of West Kirby (parcel 6.15 is in the Council's Option 2A). This level of growth is likely to increase the magnitude of effects discussed above, but they would still not be significant in the context of growth across the borough. It would also place growth at a greater distance from centres and would concentrate development into sole locations. Therefore, only **minor positive effects** are predicted for this option too.

Options 2B (Heswall urban expansion) and urban expansion of Eastham both deliver no growth within settlement area 6, which is unlikely to have a notable effect on the economy. Therefore, **neutral effects** are predicted.

Settlement Area 7 – Heswall

Heswall and the surrounding areas of west and mid-Wirral are predominantly residential areas rather than hosting employment land.

The 2012 ELPS considered that new allocations would be required (of which Wirral Waters could contribute), especially to serve Heswall and Hoylake.

In general, the smaller towns and villages already struggle to provide local job opportunities for skilled workers, such as Heswall. Therefore, growth in these locations would be likely to result in greater levels / distances of commuting. Growth in the rural areas would also do little to address regeneration, as most of these locations are affluent. It would also draw investment away from more suitable locations for economic growth such as Wirral Waters and the Commercial Core.

Growth would support accommodation for workers, though this location is not ideal in terms of access to jobs. In general, the smaller towns and villages already struggle to provide local job opportunities for skilled workers. Therefore, growth in these locations would be likely to result in greater levels / distances of commuting. Given that the growth in this settlement area is very limited for Option 1, these issues would be avoided. However, any benefits related to increased accommodation for local workers and increased spending would be limited too, and so **neutral effects** are predicted in this respect.

Option 2A (dispersed) would involve development on the urban periphery. The extent and exact location of sites has not been established. However, an increased amount of development in this location would contribute positive effects to local centres, as well as providing accommodation for local workers. If this draws growth away from areas of greatest need then it could be detrimental to the overall borough performance. However, for this settlement area, **minor positive effects** on economy are predicted.

Option 2B could involve a large urban extension to Heswall. This would have mixed effects. On one hand it would draw investment into this location, which would be positive for infrastructure, local spending and creation of some small scale employment development as part of a strategic extension. However, new homes in this location would not be best located with regards to where the majority of employment opportunities are being proposed. This will result in longer commuting distances. This approach is also likely to do less to support regeneration in areas of greatest need (given that this part of Wirral is relatively affluent). Should development here be at the expense of development in the most deprived areas to the east of the Borough, then this could generate negative effects in that respect. For this settlement area though, **minor to significant positive effects** on economy would be anticipated.

Settlement Area 8 – Rural Areas

Option 1A / 1B propose minimal growth to the rural settlement area. However any growth that does some forward is likely to be in areas with minimal job opportunities and is likely to increase commuter distances and levels. Overall, **neutral effects** are predicted.

Though Green Belt parcels are located in the rural areas, the effects of this for options 2A and 2B are discussed above at each of the urban settlement areas.

Overall effects

There are common elements to each of the spatial options that are likely to generate positive effects with regards to the economy and employment.

Of particular note is that the majority of employment land is proposed along Wirral Waters and surrounding areas and along the River Mersey at Port Sunlight / Bromborough and Eastham. These are high quality employment opportunities that are accessible to the most deprived parts of the Borough and tie-in with the wider regeneration ambitions for the Borough and the wider Liverpool sub-region. In this respect, **significant positive effects** are likely to be generated for each option with regards to economic growth, investment and employment.

However, each option performs differently in relation to impacts upon local centres across the borough, how housing is related to new and existing jobs, and how the options could help to address deprivation.

Options 1A/1B promote a lot of housing growth in urban areas that are in need of regeneration and are suffering from high levels of deprivation. In this respect, the benefits of new affordable homes and associated infrastructure improvements would be most likely to help address inequalities. Option 1 promotes most housing growth the east of the borough and it is therefore accessible to job opportunities and public transport. Growth is managed in the more affluent areas to the west, which helps to support this regeneration-led approach. In this respect, Option 1A/1B are predicted to have **significant positive effects**.

One area where Option 1A/1B could generate negative effects though is a reliance on employment land to deliver housing growth on some sites. If suitable replacements are not provided, this could lead to **minor negative effects** in terms of employment land availability in certain areas. This is unlikely to be a major stumbling block though, especially if a hybrid option was established involving limited greenbelt release should a need arise.

Options 2A, 2B and urban expansion at Eastham are less positive with regards to tackling regeneration. Firstly, growth is at the periphery of settlement areas, which is less accessible to jobs generally speaking. Furthermore, growth would be drawn away from the east of the borough in the urban areas and would be placed in more affluent locations such as Heswall, Hoylake, West Kirby and Bromborough. Whilst this has some benefit in terms of local job provision and local spending it is much less likely to address inequalities. Therefore, only **neutral** or **minor positive effects** would be generated in this respect.

These Green Belt options would also be more likely to lead to increased commuting, which is considered a **minor negative effect** in terms of creating an efficient modern economy.

Housing

Wirral Waters

Wirral Waters has achieved outline planning permission therefore, it is presumed that all options will include the delivery of 4100 homes in this location.

The scale of growth is fairly significant, which ought to be most positive with regards to the contribution to deliverability and affordability. It is also likely this would lead to the creation of large new communities with the potential to support a mix of housing types. There would be a need for phasing, but the sites ought to be deliverable within the plan period.

Reliance on this opportunity to contribute a large element of housing needs could be perceived as a risk to achieving needs across the Borough. However, there is a commitment to growth in this location, and given that outline permission is granted, and detailed schemes are in the pipeline, this ought not to be problematic. Whilst the scale of growth in this location is high, the effects are predicted to be minor, as the principal of residential development in this location is already established, and is likely to occur anyway. However, re-confirming the importance of this area within the Local Plan will help to support growth in this area and the supporting infrastructure that is required.

This scale of growth is likely to result in increased densities, resulting in more apartment flat types of housing. This could be more favoured for a certain demographic of the population (i.e. Young professionals, those without children) and therefore might not be the most suitable type of housing for the whole population, due to the lack of garden. Providing that there is sufficient choice elsewhere though, this should not be a significant effect in relation to housing.

For all three options, a **minor positive effect** is predicted to reflect the benefits in this location.

Settlement Area 1 – Wallasey

Option 1A is likely to bring forward a moderate level of growth through urban sites (brownfield) within Wallasey. There is the chance that some of the sites may not come forward as planned due to potentially uncertain viability or land contamination issues. This could lead to delays in the delivery of the homes whilst these issues are remediated. Overall this could also result in additional costs with each site, reducing the ability to bring forward the minimum affordable housing percentage to make the site deliverable.

However, by bringing forward these sites it could lead to improvements in the public realm and make housing more attractive by developing environmentally poor areas within Wallasey. This could subsequently encourage a greater mix of householders within the community.

Wallasey is also within an accessible location to a large number of employment opportunities (Commercial Core and Wirral Waters) which in turn reduces the reliance on the private car and may encourage local transport usage, whilst also increasing the attractiveness of the area to live in.

The level of growth proposed for Options 1A is likely to result in **minor positive effects** within the area.

Option 1B is likely to bring forward the same level of development but at a slower rate, with limited growth within the first 5 years. Therefore, this would delay the predicted positive effects and the area may become less attractive to live without the inward investment that could potentially be generated by housing delivery. Therefore, uncertain **minor positive effects** could be predicted.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham deliver no growth within settlement area 1. There is still committed development in the area and potential for windfall. Therefore, a lack of additional development is not predicted to be negative as such, rather **neutral effects** would occur.

Settlement Area 2 – Commercial Core

Option 1A and 1B involves the highest level of growth to the commercial core. Given that there is a demand for housing in the Commercial Core, meeting needs on the periphery is likely to have benefits for communities in these locations, and also those looking to maintain a connection to the City of Liverpool.

The likelihood of sites being brought forward in this area depends upon which are allocated. For example, brownfield sites in within the Commercial Core may not come forward as readily as greenfield sites on the edge of the settlement area. Where there is a reliance on sites with more uncertain deliverability, this could potentially raise question marks about whether housing targets would be achieved in full.

Nevertheless, options 1A and 1B which involve the greatest amount of growth in this area, are predicted to have **significant positive effects** (but with an element of uncertainty as discussed). Due to option 1B potentially having a slight lag in bringing forward growth within the first 5 years of the plan, these positive effects could be slightly reduced, although it may result in issues that arise with the brownfield sites could be dealt with in the early stages of the plan and increase the deliverability over time.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham each deliver no residual growth within settlement area 2. There is still committed development in the area, close connections to Wirral Waters and potential for windfall. Therefore, a lack of additional development is not predicted to be negative as such, rather **neutral effects** would occur.

Settlement Area 3 – Suburban Birkenhead

Option 1A / 1B propose moderate growth to settlement area 3. This will make a positive contribution to delivery and would help to tackle affordability issues in this area. The majority of the sites are brownfield though and issues could be raised about how deliverable all the sites are and whether they could accommodate the growth needed within this area (and the borough as a whole). Therefore, the positive effects could be less certain. Overall, **minor positive effects** are predicted, this could be increased if more sites are identified which would increase the flexibility and choice.

Options 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham each deliver no residual growth on the edge of settlement area 3. There is still committed development in the area, potential for windfall and links to Wirral Waters. Therefore, a lack of additional development is not predicted to be negative as such, rather **neutral effects** would occur (a degree of urban regeneration could still occur too).

Settlement Area 4 – Bromborough and Eastham

Option 1A/1B would involve a small number of additional housing sites alongside notable committed developments. The additional sites are brownfield, so there could be some questions over deliverability in the shorter term. However, with their development, there would be improved choice in this settlement area, which is a **minor positive effect**.

Option 2A could involve development on the edge of this settlement area, with several submitted sites classified as weak performing parcels (of which only parcel 4.13 is part of the

Council's final Option 2A). These sites are of a larger scale greenfield nature, which could lead to speedier delivery of housing. This is because the sites are less likely to result in delays (i.e. less potential for contamination / remediation issues). There could however be some ownership issues if a number of the sites were to be brought forward under one planning application where there are multiple land owners. With this being said, the release of greenbelt sites here would deliver a larger amount of development in this location that would help to meet affordability issues and in addition would have good access to employment opportunities. Therefore, **significant positive effects** are predicted.

Option 2B involves an urban extension at Heswall, so there would be no growth within or on the edge of settlement area 4. Therefore, **neutral effects** are predicted.

If the urban extension was at Eastham (which is not the Council's Option 2B), then it would involve up to 1500 dwellings in this location. The sites that have been put forward for growth all lie within the greenbelt and therefore are on the edge of the settlement to the south and the west of Eastham. This option would increase the distance to jobs, compared to Option 1A / 1B that propose more growth within the built-up urban areas close to the employment centre. However, concentrated growth in one part of the settlement area could deliver infrastructure improvements that would benefit nearby communities and ultimately make this part of the borough more attractive to live/work. Due to the large scale of the sites, there could be an increased mix of the type and size of dwellings that are able to be delivered, tackling affordability. However, there are issues with some of the sites in this location which place question marks over whether a comprehensive new settlement / urban extension would be deliverable in the plan period. Therefore, whilst **significant positive effects** are possible, there is considerable uncertainty.

Settlement Area 5 - Mid Wirral

There are several large-scale housing commitments in this settlement area. In addition, Options 1A / 1B proposes several additional housing sites on brownfield sites. The housing sites are relatively close to employment centres; which could provide local jobs for a number of the new residents that move to the area. They will also be within close proximity to the main services provided in Moreton, followed by Greasby and Upton. There are some potential additional sites that could come forward, but it is uncertain whether or not they would be deliverable in the plan period. Nevertheless, **minor positive effects** are predicted as housing delivery in this location will help to provide choice and flexibility in this location.

Option 2A would involve development at the edges of this settlement area. These are smaller to medium green belt parcels. They are located to the east of Woodchurch (not in the Council's final Option 2A) and to the west of Moreton, with the potential to bring forward up to 400 dwellings in each location dependant on the residential remaining requirement that cannot be met through urban sites. The scale of the sites is likely to lead to positive effects due to the opportunities to deliver a range of dwelling types and sizes to meet the community's needs, also within close proximity to job opportunities both within the towns, but also within fairly close proximity via public transport to the commercial core and the city of Liverpool. The extent of effects is dependent upon the sites which are brought forward under a dispersed approach in this location, but could range from **minor positive effects** to significant positive effects.

Options 2B (Heswall urban expansion) and urban expansion of Eastham propose no residual growth to settlement area 5, therefore **neutral effects** are predicted with regards to housing.

Settlement Area 6 – Hoylake and West Kirby

Options 1A / 1B propose a number of additional housing sites, mainly in the West Kirby urban area alongside existing commitments and completions. These are well related to the built-up area and should be attractive locations to live. The sites are brownfield, and can be delivered over a range of time frames. The scale of growth involved would lead to **minor positive effects**.

Option 2A proposes the highest level of growth to this settlement area, however most of the development would be focused around West Kirby and not Hoylake. The two weakly performing Green Belt parcels (only parcel 6.15 is included in the Council's Option 2A) lie on the southern edge of West Kirby and could potentially bring forward around 600 dwellings. This could potentially tackle some of the rural affordability issues. These locations are also attractive for market development. There ought to be a **significant positive effect** in terms of the provision of housing need in rural areas and supporting the viability of these communities.

Options 2B (Heswall urban expansion) and urban expansion of Eastham propose no residual growth to settlement area 6, therefore **neutral effects** are predicted on housing.

Settlement Area 7 – Heswall

Option 1A / 1B involves limited additional development sites, but there are numerous committed brownfield sites, the majority of which have already commenced development. Therefore, this option is predicted to have **neutral effects** in terms of generating additional housing choice and flexibility.

Option 2A would involve development on a range of weakly performing Green Belt parcels at the periphery of the urban area. Depending upon the location and extent of growth in this area, there is potential for positive effects to range from minor to significant. The sites are likely to be attractive to market, and it would be possible for several developments to come forward in tandem, which would potentially boost development in the short term. The services and infrastructure in Heswall may struggle to accommodate growth at this scale. However, new infrastructure could be brought forward to mitigate the impacts across the settlement area.

As the scale of the sites are fairly large, this would allow a range of dwelling types to come forward and they are likely to be in phases which would put less strain on the services and infrastructure at any one particular point in the plan period, allowing mitigation measures to be ironed out prior to the build out of all the dwellings. Taking into account what has been discussed above, **significant positive effects** could be predicted.

Option 2B would involve significant amounts of growth to Heswall through releasing a number of large-scale sites from the Greenbelt (as an urban extension). The location of these sites is on the land adjacent to the built-up area and therefore not in the most sustainable locations in order to reach services and are not very well connected via the

current infrastructure. There is the potential for these sites to generate enough infrastructure through mitigation measures, however there may be a lag in bringing this forward.

In addition, there would be phasing requirements, so it is probable that the whole settlement would not come forward at the same time. Though **significant positive effects** could arise in terms of housing delivery, it is likely that these would only occur in the medium to longer term.

It is noted that Heswall has more limited employment opportunities in order to provide local jobs to accommodate this growth, which would result in increase in commuter time/distances in order for new residents to travel to work and additional services.

Settlement Area 8 – Rural Areas

Option 1A /1B are predicted to have minor benefits by supporting limited growth in the rural areas.

There is one proposed site in the rural area that is located outside of an existing settlement. This is a potential development in the Green Belt at Clatterbridge Hospital. There is some uncertainty about whether this site could come forward in the plan period though.

Therefore, uncertain **minor positive effects** are predicted.

In terms of the smaller villages such as Brimstage, Thornton Hough, and Raby, there are no proposed housing allocations. There would therefore be a reliance on windfall development and existing commitments. This would not tackle rural affordability issues, and so **minor negative effects** are predicted in this respect.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham do not propose growth in the rural areas (it should be noted that the effects of greenbelt site options have mostly been discussed as urban fringe sites in settlements 1-7). Whilst there would be greater levels of development on green belt sites for these options (which are closer to the rural area), there would still be no development in the smaller villages, and so **minor negative effects** are predicted like for option 1.

Housing: Overall effects

Options 1A / 1B propose enough additional housing sites to meet the locally assessed need of 12,000 dwellings over the plan period (i.e. 800 homes per year). There are additional sites identified also, which is a theoretical supply of approximately 14,800 dwellings (though these potentially have deliverability issues). In the event that all these sites come forward, a **significant positive effect** is likely to occur. This amount of development should however provide sufficient choice and flexibility. The distribution of development is also well correlated in terms of employment opportunities.

Option 2A is predicted to have **significant positive effects** in terms of housing delivery as it would also meet objectively assessed needs. However, if this was at the expense of growth in the urban areas, then the benefits of development for those in greatest need would be reduced. The issues would be more pronounced for **Option 2B** and an urban expansion of Eastham, as development would be concentrated more into singular locations

(and thus the benefits of development would not be felt by a variety of communities). Therefore, only **minor positive effects** are predicted for Option 2B.

All three options provide sufficient land to meet objectively assessed housing needs. There is also a degree of flexibility built into each option.

Should the objectively assessed housing need be achieved (for the Borough), this would lead to positive effects on housing. However, setting a target in line with the OAN does not necessarily mean it will be achieved if there are issues of deliverability and phasing. Therefore, at this scale of growth, the potential for significant positive effects could be reduced somewhat unless additional land is released to allow for flexibility.

The distribution of housing is also important to ensure that a wide range of communities benefit from growth, and that development occurs in appropriate, attractive locations. In this respect, Option 2B and urban expansion of Eastham perform less well compared to Options 1A/1B and 2A.

Population and Communities

Wirral Waters

The distribution of housing and employment growth is important to ensure that a wide range of communities benefit from growth, and that development occurs in appropriate, attractive locations. Growth in this location should allow strong links to a range of community facilities, including green infrastructure which is likely to come forward as part of the wider master plan for Wirral Waters. The plans for growth in this location are at a fairly high density and a mix of uses, both night and day time. This may help to tackle crime and deprivation, by increasing the night time economy, leading to a more active street presence.

There are a number of sites able to accommodate growth around Wirral Water, the majority of which have already obtained outline planning permission. Therefore, each option is predicted to bring forward the same numbers of dwellings in phases across the plan period.

Development of this scale is likely to lead to positive effects on the population and community by bringing where people live and work within a suitable location, whilst also enhancing the offering of services in this location. The amount of growth involved should help to support improvements to transport infrastructure and promote walkable communities.

Increasing densities and developing new communities in areas of dereliction should also help to create a stronger sense of pride in these places.

Access to green infrastructure in this location may not be ideal given the urban nature of the surrounding areas. It will therefore be important to deliver enhancements to green and blue infrastructure and make links to existing areas.

Settlement Area 1 – Wallasey

Option 1A proposes dispersed growth across one of the most deprived areas in Wirral. As discussed in the health section, this growth level is likely to have modest effects, which will be similar for the population and community (in terms of tackling social isolation and supporting access to community infrastructure).

As discussed in the housing section, bringing forward and intensifying urban growth should lead to improvements in the public realm, making the area more attractive by developing less active areas within Wallasey. This can help to reduce fear of crime amongst other community benefits. Only **minor positive effects** are predicted given the relatively small amount of additional growth involved, and the small scale nature of sites (meaning the provision of public open space and community facilities is unlikely to be significant).

Option 1B is likely to bring forward the same level of development but at a slower rate, with limited growth within the first 5 years. Therefore, this would delay positive effects and the area may become less attractive to live short term without any inward investment that could potentially be generated by housing delivery.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham deliver no residual growth within settlement area 1. However, it would be expected that the deliverable sites would still come forward, which is a **neutral effect** (given that this is likely to occur to a degree anyway).

Settlement Area 2 – Commercial Core

The effects in this settlement area are likely to be similar to the effects discussed within the Wirral Waters section (given the overlap).

Option 1A and B propose the highest level of growth to this area, with intensified housing growth on a range of brownfield sites.

Development of this scale is likely to lead to **significant positive effects** on the population and community by bringing where people live and work within a suitable location, whilst also enhancing the offering of services in this location. The amount of growth is likely to lead to improvements to the transport infrastructure and public realm overall making the places feel safer to those who live and work here. Increasing densities should also help to create a sense a community, in an area that is currently under-developed / derelict in places. Building places with a strong identity that promote social inclusion will be partly reliant upon the design and layout of developments and how they link to existing communities and services. Therefore, there is an element of uncertainty involved. It will be important to ensure that gentrification does not occur, as this could polarise communities. This is a potential **negative effect** that should be raised at this stage so that a proactive approach can be taken.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham deliver no further residual growth within settlement area 2. However, it would be expected that the deliverable sites would still come forward, which is a **neutral effect** (given that this is likely to occur to a degree anyway).

Settlement Area 3 – Suburban Birkenhead

Option 1A and 1B involves a small amount of development, though there are 'potential extra housing sites' that would provide a greater range of sites should these be found to be deliverable.

The scale of growth involved is unlikely to generate notable effects with regards to overall levels of crime and community safety. However, there are particular sites where the quality of the environment could be improved.

No community facilities are likely to be lost as a result of proposed development, but the small scale of growth also means that enhancements are not likely to be significant. There could be some minor positive effects as a result of affordable homes being provided in areas of deprivation, and also through small contributions towards public realm improvement. Overall, **uncertain positive effects** could be predicted.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham each deliver no residual growth within settlement area 3, with a presumption that development on some sites would be less likely to occur. Therefore, **neutral effects** are predicted in terms of communities.

Settlement Area 4 – Bromborough and Eastham

Option 1A and 1B proposes brownfield development within this settlement area. The sites involved include areas that are derelict / in a poor condition. Re-development here could

help to improve community safety and the quality of the environment in areas suffering higher levels of deprivation, which is a **minor positive effect**.

The proposed sites are unlikely to have negative effects upon community facilities, but the potential for on-site improvements are also minimal given the scale and nature of sites. Development contributions could go towards wider improvements throughout this settlement area though, which contains areas of high deprivation.

Option 2A involves residual growth on Green Belt parcel that is adjacent to areas of higher deprivation. This could possibly help to address affordable housing issues in such areas, as well as securing improved facilities and green infrastructure improvements. This could have **minor positive effects** with regards to community development.

Urban expansion at Eastham (not the Council's final Option 2B) would likely contribute towards improved services and facilities for new communities and also for adjacent communities (some of which suffer from deprivation). These are **minor to potentially significant positive effects**.

Settlement Area 5 - Mid Wirral

Option 1A and 1B propose several sites within the Mid Wirral settlement area. These sites are of small-medium scale and do not involve the loss of community facilities. The sites are of a brownfield nature and so redevelopment could have some benefits with regards to community safety perceptions and also the provision of affordable housing in areas of deprivation (i.e. Moreton). It is uncertain whether development would lead to the provision of new community facilities, but this is considered unlikely given the scale of growth. Overall an uncertain **minor positive effect** is predicted.

Option 2A involves residual growth on a Green Belt parcel of land. This is in areas of relatively low deprivation, and the loss of open space is not beneficial from a community development perspective. Therefore, an uncertain **minor negative effect** is predicted.

Options 2B (Heswall urban expansion) and urban expansion of Eastham will not affect Mid Wirral as there are no further site allocations proposed in this Settlement Area. Though some urban regeneration would still occur, it could be at a lower level and so potential benefits are less certain. Therefore, **neutral effects** are predicted.

Settlement Area 6 – Hoylake and West Kirby

A relatively modest amount of growth is proposed in the urban area for Options 1A and 1B, with this all being at West Kirby. Most of this is in areas of low deprivation. Therefore, there are question marks over the extent to which new housing will close the deprivation gap. In terms of community uses, one of the proposed sites is green space, and its loss could be perceived negatively. Therefore, **minor negative effects** could be predicted. The effects on community safety are predicted to be **neutral**.

Option 2A would involve residual growth on a parcel of Green Belt land. This has no formal community use, and so apart from amenity issues would be unlikely to have an effect upon community development. The development falls within an area of low deprivation and so positive effects in terms of improving deprived communities are unlikely. **Neutral effects** are

predicted overall in this respect. Should new development include enhancements to or new open space / community facilities, this could be a **minor positive effect**.

Options 2B (Heswall urban expansion) and urban expansion of Eastham each propose no residual growth to settlement area 6, therefore **neutral effects** are predicted.

Settlement Area 7 – Heswall

In Heswall, there is one GP service located next to Telegraph Rd (A50). There are natural and semi natural green spaces in Heswall including the Heswall Dales LNR, the Whitfield Common, Poll Hill, Heswall Beacons, golf courses and outdoor sport facilities.

Option 1A / 1B propose a limited amount of growth in the urban built up boundary of Heswall. As discussed in the housing section this is unlikely to lead to positive effects due to the lack of opportunities to deliver community infrastructure and additional health and leisure facilities which won't help the 20-40% deprivation rate. Therefore, **neutral effects** are predicted.

Option 2A involves the release of several parcels of Green Belt land. These are mostly within areas of low deprivation, and so direct effects on areas of need are unlikely. There will be a loss of open space, but this is not used formally for recreation with the exception of one parcel that is intersected by a public right of way and semi natural greenspace. There could be some enhancement to community facilities with development of a more strategic scale, but each individual development is unlikely to support new community centres. Therefore, the effects are likely to be **neutral** or possibly a **minor positive**, but there is uncertainty.

Option 2B proposes a large urban extension to Heswall. The areas involved fall within lower levels of multiple deprivation and so direct effects on areas of need are unlikely. Growth at this scale is likely to require mitigation for health and leisure services in Heswall, along with additional outdoor playing / green spaces, which could be incorporated within a master-planned development. There is the potential this could enhance the current offering for the community, resulting in positive effects. This is positive for new communities and ought create a sense of identity for new neighbourhoods. However, it is unlikely to do much in terms of addressing deprivation. Therefore, **minor positive effects** are predicted.

Settlement Area 8 – Rural Areas

Options 1A a/ 1B identify a large site of green belt near the Clatterbridge Hospital. There are deliverability issues, so whether this comes forward is uncertain. Nevertheless, this is unlikely to have a notable effect upon existing communities in terms of community development or safety. **Neutral effects** are predicted.

Though Green Belt parcels are located in the rural areas, the effects of this for options 2A, 2B and urban expansion to Eastham are discussed above at each of the urban settlement areas.

Overall effects

Of particular note is that the majority of employment land is proposed along Wirral Waters and surrounding areas and along the River Mersey at Port Sunlight / Bromborough and

Eastham. These are high quality employment opportunities that are accessible to the most deprived parts of the Borough and tie-in with the wider regeneration ambitions for the Borough and the wider Liverpool sub-region. In this respect, **significant positive effects** are likely to be generated for each option with regards to population and the community.

However, each option performs differently in relation to impacts upon local centres/settlement areas across the borough, how the growth areas are related to new and existing jobs, health and leisure facilities, green infrastructure links and how the options could help to address overall deprivation.

Option 1A / 1B promotes a lot of housing growth in urban areas that are in need of regeneration and are suffering from high levels of deprivation. In this respect, the benefits of associated infrastructure improvements would be most likely to help address inequalities, improving access to new / improved health and leisure opportunities and increasing the housing options for a greater proportion of the population. Option 1A / 1B promotes most housing growth the east of the borough and it is therefore accessible to job opportunities and public transport. Growth is managed in the more affluent areas to the west, which helps to support this regeneration-led approach.

There are a number of vacant and poor quality sites involved for Option 1A / 1B, several of which are in areas of high multiple deprivation. Redevelopment ought to help improve the public realm and could help to improve perceptions of community safety.

Most of the proposed sites are brownfield in nature, and the surrounding areas are urbanised. It will be important to ensure that access to open space and green infrastructure is considered for Option 1A / 1B given that there are no immediate links to green infrastructure networks in the countryside.

Taking the above factors into account, Option 1A / 1B is predicted to have **significant positive effects**.

Options 2A, 2B and an urban expansion to Eastham are less positive with regards to tackling regeneration across the whole borough, as residual growth mainly focuses on the more affluent areas in the borough. Development would be at the periphery of settlement areas, which is less favourable for the population as this is less accessible to jobs, leisure and health facilities generally speaking.

However, there would still be an element of urban regeneration for each of these two options (before Green Belt release) and therefore, **minor positive effects** are predicted in terms of addressing inequalities.

The strategic nature of developments ought to allow for improvements to be made with regards to social infrastructure. For Option 2A, **minor positive effects** would be generated at several locations across the borough.

For Option 2B, the scale of growth associated with an urban extension would likely support new open space, education and health facilities, which would be beneficial for new communities. The location of the new settlements would also be likely to support good access to green infrastructure and open space. These are **significant positive effects** for new communities, but the benefits in other parts of the borough would be limited.

These two options would also be more likely to lead to increased commuting for work and distance travelled for local services, which is considered a **minor negative effect** in terms of (not) creating rounded communities/services centres which provide the right offering to improve people's quality of life.

Transport

In general, most of the urban areas in Wirral are covered by some form of transport linkage whether it be cycle routes, roads or rail. The Merseyrail line between Birkenhead and Chester runs along the eastern side of the Wirral, and is close to where more developments are being proposed in these existing urban areas. More development will harness the need for better transport linkages. It is best to place development in areas already serviced by transport infrastructure, to avoid transport upgrade costs in areas where they currently don't exist.

Wirral Waters

Wirral Waters possesses a wide range of local facilities and services, including good public transport links. Access to jobs would also be good given the future opportunities in Wirral Waters itself and links to Birkenhead and Liverpool, via public transport and road. Development in the urban area would therefore have excellent accessibility. The scale of some sites at Wirral Waters could also be more likely to support on-site facilities that could benefit new and existing communities.

In the absence of strategic infrastructure improvements this could lead to negative effects with regards to congestion. However, should development be of a scale that supports enhanced road links and expanded public transport networks, traffic could potentially be directed away from the centre of Wirral Waters.

On balance, positive effects could be generated, but this carries a degree of uncertainty. A minor negative effect is predicted to reflect the potential for increased traffic on local roads (though this is also uncertain / dependent upon whether road and bus networks can be enhanced in advance of any development in this area).

Settlement Area 1 – Wallasey

If development is located in the urban area, accessibility ought to be relatively good, as there is a range of services and jobs available in Wallasey and also nearby at Wirral Waters, Birkenhead and Liverpool. There could be some increased pressure on local services and road networks, but this should be possible to mitigate given the low scale of growth involved. Should development be at the urban fringes, accessibility would be slightly poorer, and may not create the critical mass for new services.

Option 1A and 1B both involve a fairly low level of housing development, and so the effects in terms of transport are predicted to be **neutral**.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham would involve no growth within or at the periphery of this settlement area and so implications are also likely to be neutral. Having said this, development in areas that promote car usage along routes such as the A49 could draw some increased traffic through the southern edges of Wallasey. Overall, **neutral effects** are predicted.

Settlement Area 2 – Commercial Core

Option 1A and 1B involve substantial growth in this location, and this is likely to generate increased traffic during both construction and once sites are delivered. However, the type of

development involved and the good accessibility in this location should encourage public transport usage, walking and cycling. This should offset potential increases in traffic and encourage modal shift. Focusing development in the urban areas will also help to reduce the length of trips from outer settlements. Overall, this constitutes mixed effects with **minor negative effects** due to traffic, but potentially **positive effects** due to improved accessibility for new developments.

For Options 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham, there is no residual growth planned in the Commercial Core. Under such an approach, the level of growth in this area would likely to be decreased, as there is an assumption that sites would not be deliverable given the need for Green Belt release. This would reduce some pressure on the local road networks that increased housing can bring. In this respect, the effects on local roads are likely to be less. Depending on the location of green belt development though, this approach could draw more traffic into the commercial core from farther afield along strategic routes. This is a **minor negative effect**.

Settlement Area 3 – Suburban Birkenhead

These areas have broadly good access to services and facilities. There are several GPs, multiple primary schools in the area and three secondary schools. Public transport access is reasonable, with links to the Commercial Core and Liverpool City itself helping to reduce the distance needed to access jobs and a wide range of cultural and recreational facilities.

The scale of growth involved for Options 1A/1B is unlikely to generate notable effects with regards to traffic in this settlement area. However, growth at the Commercial Core could attract more people to access jobs and services. Given the relatively close proximity, this is more likely to be by sustainable modes though.

New and existing residents should still benefit from good accessibility; with potential improvements being achieved through development contributions. Consequently, a **minor positive effect** is predicted in this respect.

Option 2A, Option 2B (Heswall urban expansion) and urban expansion of Eastham each deliver no residual growth within settlement area 3. Whilst pressure on local roads would be limited, there could still be trips along strategic routes towards job opportunities and the City from more distant Green Belt developments (more so for 2A and 2B). Therefore, potential **minor negative effects** are predicted.

Settlement Area 4 – Bromborough and Eastham

For Option 1A and 1B there are only a few development sites proposed for housing within this Settlement Area. The effects upon the transport network are therefore likely to be limited, whilst the location of development should allow for access to public transport. As a result **neutral effects** are predicted for this settlement area. It is probable that there will be increased commuting from areas to the north of this settlement area as this is where a large amount of development is proposed (i.e. from the commercial core). This could put some pressure on strategic road networks accessing employment at Port Sunlight for example. However, the effects are not anticipated to be significant given the existing infrastructure available.

For Option 2A, there is one weakly performing green belt parcel (4.13) included in the Council's Option 2A, although other weakly performing parcels are identified next to the Settlement Area which would have a cumulative negative effect on Bromborough and Eastham if developed to support an even higher level of residual housing needs. An increase in housing at the identified Green Belt parcel is likely to lead to some increased car trips locally, especially as it is located adjacent to a number of key roads. This is a **minor negative effect**.

Option 2B concentrates development in one location to the West of Heswall (Single Urban Extension). The Green Belt study identifies a second area just to the South West of Bromborough. For Bromborough and Eastham if this area were to come forward, **significant negative effects** are possible in terms of transport as there would be an increase in car trips. There will be a greater need for improvement to existing transport linkages. Pressure would also be placed on existing transport infrastructure within the Bromborough and Eastham Settlement Area. A mitigating factor is the potential for local services to be secured from a comprehensive urban extension, which would reduce the need for car travel. There are also employment opportunities fairly close by, which might mean that people are more inclined to cycle or use public transport more. The residual effects are therefore less likely to be significantly negative.

Settlement Area 5 - Mid Wirral

Option 1A and 1B propose a relatively small amount of growth within Mid Wirral, which is unlikely to create significant amounts of traffic. The new homes are likely to have good access to services and facilities too, therefore **neutral effects** are predicted.

Option 2A would result in a higher level of growth, with the focus of the development being in locations on the edge of the settlement area. At this level of growth, there would be increased pressure on existing services and facilities plus increased traffic, as the peripheral locations are more likely to encourage car usage. A **minor negative effect** is predicted in this respect. However, higher levels of development contributions could also better help to support new facilities for new and existing communities, so the residual effects could be different.

Options 2B (Heswall urban expansion) and urban expansion of Eastham will not affect Mid Wirral as there are no further sites proposed in this Settlement Area, resulting in **neutral effects**.

Settlement Area 6 – Hoylake and West Kirby

The amount of development involved for Options 1A / 1B is unlikely to create a critical mass to support new facilities. Access to services is therefore likely to remain the same.

Though a relatively small amount of growth is proposed for this settlement area, it is more likely to place development in locations that require the use of a car to access certain services and jobs (and promote longer commuting distances). The growth involved for Options 1A/1B is fairly low, and so pressure on roads and the amount of new development with accessibility issues is not likely to raise significant concerns. Therefore, the effects are **neutral** or **minor negative** at worst.

Option 2A is likely to bring forward medium-large scale development sites on the edge of West Kirby. As discussed above, development in this location is likely to put additional pressure on road networks and existing services and increases the possibility that more trips via the private car would be generated by people travelling to the main employment centre and to access certain services. Overall, **minor negative effects** are predicted.

Options 2B (Heswall urban expansion) and urban expansion of Eastham will not affect this settlement area as there are no further residual sites, resulting in **neutral effects**. Some urban regeneration would be expected, but at a level in keeping with the baseline position.

Settlement Area 7 – Heswall

There is one train station located on the southern edge of Heswall, providing a fairly weak connection to the commercial core and Wirral Waters. Additionally, there is a fairly weak road network that connects Heswall to employment hubs. Development in this location of a certain scale is likely to put strain on the current transport infrastructure whilst also increase the amount of commuter time and distances travelled.

Option 1A and 1B distribute a very small amount of dispersed growth to Heswall. Therefore, **neutral effects** are predicted due to this low magnitude.

Option 2A involves higher levels of growth in urban periphery locations. There is therefore a likelihood that car usage will increase and road traffic will be affected negatively. Though there is a train station to the south of the settlement, services are relatively infrequent, and it is not accessible on foot to most of the proposed Green Belt parcels. It is likely that increased commuter distances will be involved for new homes in these locations. Together, these issues represent **minor negative effects**.

Option 2B involves a single urban extension to Heswall. The scale of growth would be such that local transport networks would likely be affected negatively by increased car trips. However, this should be offset somewhat by the potential to develop a well-planned walkable neighbourhood. The scale of growth may also help to support improvements to road, cycle and walking networks. Therefore, only **minor negative effects** are predicted overall.

Settlement Area 8 – Rural Areas

The rural areas currently have poor or no access to services and facilities. Therefore, unless the development sites generate the critical mass to support new schools and health facilities, these communities will need to travel to access basic services. Access to cultural and community facilities in these locations would also be dependent upon developer contributions.

Given that Options 1A/1B do not propose growth in the rural villages, the situation is unlikely to change. On one hand this is positive as it ensures new development is located in the more accessible locations. However, any opportunities to improve accessibility would not be realised. Overall, **neutral effects** are predicted.

Though Green Belt parcels are located in the rural areas, the effects of this for options 2A and 2B are discussed above at each of the urban settlement areas.

Overall effects

Options 1A and 1B propose higher density development in existing urban areas, mainly focusing on Wirral Waters, Commercial Core and other locations to the east of the Borough. Wirral Waters is planned to include a wide range of local facilities and services, including further enhancements to the already good public transport links. Access to jobs would also be good given the future opportunities in Wirral Waters itself and links to Birkenhead and Liverpool, via public transport and road. Development in the urban area would therefore have excellent accessibility. The scale of some sites at Wirral Waters could also be more likely to support on-site facilities that could benefit new and existing communities.

In the absence of strategic infrastructure improvements this could lead to negative effects with regards to congestion in areas that already suffer. However, the factors discussed above will help to mitigate such effects.

More limited growth is proposed in settlement areas to the middle and west of the borough. These settlement areas exhibit poorer accessibility in terms of access to services and jobs (especially by rail), and in turn increase travel trips by car for a large proportion of the population. Given that growth is limited in these areas, congestion problems are unlikely to be worsened notably here. There are public transport links and local services that will help to promote sustainable travel, but it is likely that a reliance on car travel will remain, which are **neutral effects**.

On balance, **significant positive effects** could be generated as the majority of new development will have excellent accessibility and is well linked to existing and planned employment growth and existing infrastructure. This ought to promote sustainable travel and ensure that growth can be supported.

However, it will be important to ensure that intensified growth in the urban areas to the east of the Borough does not lead to congestion problems. A **minor negative effect** is predicted to reflect the potential for increased traffic on local roads (though this is also uncertain / dependent upon whether road and bus networks can be enhanced in advance of any development in this area).

Option 2A, 2B and urban expansion to Eastham are proposing substantial focused development at the periphery of urban areas. This could have a negative effect on transport as existing transport linkage infrastructure may reach capacity and there could be requirements for infrastructure upgrades in locations that are not currently well connected to the transport network. Furthermore, these locations are generally less well related to public transport and services, and more likely to encourage car use. Consequently, these approaches are less likely to support a shift from car dominance.

Option 2A may have a negative effect on existing transport infrastructure at a number of the Settlement Areas as they will be affected by increases in development, but not necessarily at a high enough scale to fund strategic transport infrastructure or on site improvements to social infrastructure provision such as new schools and health facilities. However, the effects in terms of congestion are less likely to be significant, as development (and thus car trips) would be dispersed. However, the overall picture in terms of car usage would likely be the worst of all three options. The good access afforded by Option 1 would be absent, whilst the strategic opportunities for enhancement associated with large urban extensions would also be less likely. Overall, **minor negative effects** are predicted.

Option 2B will involve the largest focus of growth into a new urban extensions. This could create localised pressures on the road network, but the scale of growth ought to allow for improvements to be secured. There should also be associated services supporting such extensions and so it should be possible to achieve walkable developments. With regards to employment opportunities though, the links are less positive. An extension to the east of Heswall would likely result in car dominated commuting patterns, putting pressure on local road networks. If development in this location draws development away from the urban areas near to the Commercial Core, it may also mean that investment in transport improvements measures in those areas is diminished. With this in mind, **minor negative effects** are predicted overall. Whilst this approach could lead to notable effects in certain locations in terms of traffic, the potential for strategic enhancements offset this to an extent.

An urban expansion to Eastham / Bebington would have similar effects, but this has better connections to new employment opportunities (resulting in shorter and potentially fewer car trips). This location is also likely to generate car trips though, particularly given its good access to the A41. A significant increase in traffic in this location could therefore contribute to negative effects on congestion.