

FLINTSHIRE COUNTY COUNCIL LOCAL DEVELOPMENT PLAN

Sustainability Appraisal of Strategic Options

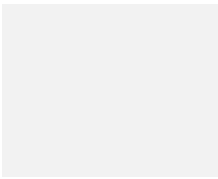
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EC HARRIS
BUILT ASSET
CONSULTANCY



CONTACTS



EMMA WOODROW
Environmental Consultant

002-UA008628-UE31-01-F

Arcadis.
401 Faraday Street
Birchwood Park
Warrington
WA3 6GA
United Kingdom

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1 Introduction

1.1 Background and Purpose of this Report

Flintshire County Council is preparing a Local Development Plan (LDP) to cover the 15 year period 2015 to 2030. In order to understand the development needs that the Plan should provide for, a series of potential growth options and spatial options have been developed. These are explained in the Council's 2016 document, *Consultation and Engagement Document - Developing the LDP Strategy. Strategic Options for: Planned Growth and Spatial Strategy*.

This Report has been prepared by Arcadis (UK) Ltd. on behalf of Flintshire County Council as part of the combined Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) (hereinafter referred to as SA) of the emerging LDP. The background to and purpose of the SA is outlined in the SA Scoping Report (001-UA006826-UE31-01) dated March 2015 and consulted upon in 2016. In summary, SA is a process of appraising the social, environmental and economic effects of a plan and its alternatives as it develops. The SA is undertaken by independent consultants who can provide feedback and recommendations to the plan-makers during the appraisal process in order to amend the plan and contribute to the achievement of sustainable development. The SA follows a number of prescribed steps and mandatory reporting outputs. It is a legal requirement and must meet the requirements of the Strategic Environmental Assessment (SEA) Regulations¹.

This stage of the SA relates to the appraisal of strategic options. As such, this report provides the SA of the spatial and growth options proposed in the Consultation and Engagement Document. This will help to inform the consultation process and feed into decision-making. The SA of these options will eventually also be reported in the formal SA Report for the LDP as a whole.

1.2 Approach

As described in the SA Scoping Report, the main assessment tool used in the SA is the SA Framework. This comprises a series of 16 Sustainability Objectives (covering social, economic and environmental issues) that are used to test the performance of the plan being assessed.

The SA Objectives are separate from the objectives of the LDP, although there may be some overlaps between them. To help measure the performance of the LDP's components against the SA Objectives, it is beneficial if they are supported by a series of indicators and targets. Baseline data has been collated to support the indicators, as this provides a means of determining current performance across the county and gauging how much intervention or the extent of work needed to achieve the targets that have been identified. The SA Framework was consulted upon as part of the Scoping Consultation and amendments have been made as a result. The agreed SA Framework is presented in Appendix A.

Section 3 of this report provides an assessment of each of the five spatial options proposed together with the differences that may occur under difference growth scenarios. Note that the Consultation and Engagement Document proposes six alternative growth scenarios. The SA is a relatively high-level appraisal process so at this stage (and without knowing the precise locations of potential development sites) it is not possible to differentiate between every growth option, especially as some options are very similar. Instead, the six options have been broken into three – a high (~690 dwellings per annum), medium (440-550 dwellings per annum) and low (250-320 dwellings per annum) growth scenario.

Section 3 comprises a matrix in which each of the options is appraised against the SA Framework and a score is applied using the nomenclature in Table 1-1. Where appropriate, potential sources for mitigation or recommendations for mitigation have been made.

¹ Environmental Assessment of Plans and Programmes (Wales) Regulations (SI 2004/1656 (W/170))

Table Error! Use the Home tab to apply _Heading1 to the text that you want to appear here.-1 Summary of Options Appraisal Nomenclature

Impact	Description	Symbol
Major Positive Impact	The proposal strongly contributes to the achievement of the SA Objective.	++
Positive Impact	The option contributes partially to the achievement of the SA Objective.	+
No Impact/ Neutral	There is no clear relationship between the option and/or the achievement of the SA Objective or the relationship is negligible.	0
Negative Impact	The option partially detracts from the achievement of the SA Objective.	-
Major Negative Impact	The proposal strongly detracts from the achievement of the SA Objective.	--
Uncertain impact – more information required	It is not possible to determine the nature of the impact as there may be too many external factors that would influence the appraisal or the impact may depend heavily upon implementation at the local level.	?
Positive and Negative Impacts	The option has a combination of both positive and negative contributions to the achievement of the SA Objective.	+/-
Timescale	The effects could be realised in the short-term (next 5 years), medium term (5-10 years), long term (more than 10 years) or a mix of these.	S / M / L
Direct/indirect	The effect is a direct or indirect consequence of the option.	D / I
Reversibility	The effect is reversible or irreversible.	R / I
Certainty	There is high, medium or low certainty in the prediction.	H / M / L

2 THE STRATEGIC SPATIAL OPTIONS

The Consultation and Engagement Document presents five spatial options and explains how they were developed from a longer list.

These five options are summarised below.

Option 1 – Proportional Distribution
<p>Description</p> <p>Developing a settlement hierarchy which allows for a proportional distribution of development based on sustainability principles</p>
<p>Spatial Expression / Settlements Affected</p> <p>This option is based on the 5 tier settlement hierarchy as set out below:</p>
Main Service Centres
Local Service Centres
Sustainable Village
Defined Village
Undefined Village

Option 2 – Focussed Urban Growth
<p>Description</p> <p>Directing all development to urban centres i.e. the upper two tiers of the settlement hierarchy</p>
<p>Spatial Expression / Settlements Affected</p> <p>This option is based on the top 2 tiers of the 5 tier settlement hierarchy as set out below:</p>
Main Service Centres
Local Service Centres

Option 3 – Growth Area
<p>Description</p> <p>Development would be focussed by directing all development based on a rigid definition of the growth area triangle embodied in the Wales Spatial Plan.</p>
<p>Spatial Expression / Settlements Affected</p> <p>This option is based on delineating a boundary in map form which is based on the growth area triangle in the Wales Spatial Plan. It would encompass the following settlements:</p>
Settlements

Deeside Settlements, Mold, Sychdyn, New Brighton, Buckley, Mynydd Isa, Alltami, Penyffordd / Penymynydd, Hope Caergwrle, Abermorddu and Cefn y Bedd, Broughton, Saltney, Ewloe, Hawarden, Mancot, Northop, Northop Hall, Higher Kinnerton, Pontblyddyn, Dobshell

Option 4 – Hubs and Corridors

Description
Development would be distributed based on a strict interpretation of key road and rail transport hubs and routes.

Spatial Expression / Settlements Affected
This option is based on identifying the key strategic transport hubs and corridors and would focus on both public transport and key roads. The settlements that would fall within these hubs and corridors are as follows:

Settlements with Stations on Railway Corridors

Wrexham – Bidston Line: Cefn y Bedd, Caergwrle, Hope, Penyffordd, Buckley (Little Mountain), Hawarden, Shotton, Hawarden Bridge	North Wales Coast Line: Flint, Shotton
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Settlements on Key Strategic Roads

A494(T): Deeside Settlements, Ewloe, Alltami, New Brighton, Mynydd Isa, Mold, Sychdyn, Gwernymynydd, Cadole	A55(T): Broughton & Bretton, Dobshell, Ewloe, Northop, Northop Hall, Drury & Burntwood, Flint Mountain, Halkyn, Pentre Halkyn, Carmel, Brynford, Gorsedd.	A548: Deeside Settlements, Saltney, Flint, Bagillt, Greenfield, Mostyn. Ffynnongroyw, Penyffordd, Gwespyr, Gronant
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Option 5 – Sustainable Distribution plus Refined Approach to Rural Settlements

Description
Development would be focussed on the first three tiers of the settlement hierarchy, based on identifying the most sustainable settlements and sites. In the rural settlements a more refined policy approach would be developed to ensure that a more flexible approach is taken to bringing about and delivering local needs housing.

Spatial Expression / Settlements Affected
This option is based on the first three tiers of the settlement hierarchy as shown below:

- Main Service Centres
- Local Service Centres
- Sustainable Village

For the following tiers in the settlement hierarchy a more refined policy approach will be developed which seeks to embrace more innovative methods of delivering development in a sensitive, needs driven, sustainable manner.
Defined Village
Undefined Village

3 APPRAISAL OF THE OPTIONS

SA Objective Topic	Option1 Proportional Distribution			
	Score	Commentary	Mitigation potential	Growth Scenario
1. Crime	+/- S/M/L I R L	<p>All new housing development on greenfield sites has potential to create a new target for crime, especially as burglary is one of the largest types of crime in the county. However, the option also includes a focus of growth in areas in need of regeneration such as in Holywell, Flint and Deeside which currently exhibit the highest levels of crime deprivation in the county. Growth-led regeneration in these areas may help reduce crime levels.</p> <p>The option provides a proportional spread of development depending on proximity to services including schools and health care facilities. Consequently, it performs well in terms of access to education and healthcare which could benefit educational attainment and levels of health in the longer term. Most development is proposed around the largest concentrations of amenities in, e.g. the Main Service Centres including Mold, Flint and Deeside. It performs very well in terms of wider access to essential services and facilities (also including shops, post offices, community facilities etc.) and public transport hubs, again through its proportional distribution, with the majority of development being near to centres with the most services yet still providing smaller amounts of development for local needs in smaller settlements which would help reduce the need to travel and would help maintain local service viability.</p> <p>All spatial options, including this option, seek to provide the same required quantum of housing to meet housing needs. However, this options promotes a fairly rigid numerical approach which provides the same amount of development in each settlement tier. This growth is proposed irrespective of whether each settlement could accommodate growth due to physical, environmental or infrastructure constraints. Some settlements may be less attractive to developers than others due to their location and there is a risk that there may be an over-demand for development in some areas and an under-demand in others. Also, for these reasons, it is possible that this approach does not provide sufficient flexibility in the rural areas to provide for the needs of rural communities. Consequently, only a minor positive score has been assigned to the housing SA Objective.</p>	<p>Whilst crime is more than just a planning issue, it is possible to help avoid areas becoming a crime target through careful design and security measures.</p>	<p>The highest growth scenario potentially offers the greatest benefits in terms of improving access to health, education and other services when compared with the medium and low options. It may also have the largest influence on crime levels compared to the other options. However, large quantities of housing may put pressure on existing services (schools, GPs) in the short-term until additional service provision catches up. In the long-term the high and medium growth options may benefit rural service viability by providing a larger local market.</p> <p>The high growth (and possibly the medium growth) options may exacerbate the concern that some settlements may not have the capacity or attractiveness to accommodate the same levels of growth as other same tier settlements. Consequently, the higher growth options may not be deliverable compared to the low growth option. It is recommended that this is tested further with settlement specific capacity/viability studies.</p>
2. Education	+ M/L I R M			
3. Health	+ L I R M			
4. Housing	+ S/M/L D I M			
5. Access	++ S/M/L D I M			
6. Economy	+ S/M/L I R M	<p>The option encourages the largest proportion of development near to the county's key employment areas such as the Deeside Enterprise Zone, Northern Gateway, Broughton etc. These areas are also close to and easily accessible to employment opportunities in Cheshire and Wrexham and thus conforms to the aspirations in the Wales Spatial Plan. Otherwise growth near to other Main Settlements and Local Service Centres provides proximity to public transport to enable other employment areas to be accessed readily. This is both beneficial to economic growth and investment potential as well as encouraging proximity to jobs. Furthermore, growth is proposed in areas of higher employment and income deprivation (mainly along the coast including Main Settlements such as Holywell and Flint) which can both help encourage economic investment in those areas and also put people closer to transport links in order to access other employment areas. Given the spread of development across the county, it could be considered that economic development would be spread more thinly than it needs to be.</p>	<p>A more tailored or flexible approach to development, particularly in rural areas, may help to deliver greater benefits to rural life.</p>	<p>The highest growth options have a greater potential to benefit employment and the economy compared with the low growth option due to there being a greater emphasis on growth near to or accessible to the key employment areas. This would provide a larger labour market and help to encourage inward investment.</p> <p>However, as identified above, the highest growth options may not be deliverable due to physical or infrastructure constraints. Notably this may not deliver the required benefits in more rural settlements. Indeed, too much growth in some rural areas may have an adverse effect on settlement character and the quality of life on those areas. A balanced and more bespoke approach in certain settlements is therefore considered more appropriate.</p>
7. Employment	+ S/M/L I R M			
8. Rural Life	+/- S/M/L I R M			
9. Biodiversity	-- S/M/L I R L	<p>The option promotes the majority of development in the Main Settlements along the coast, in the Deeside area and in Mold/Buckley. Most of these broad areas coincide with or are adjacent to designated nature conservation areas, notably the European level designations within the Dee Estuary and in and around Buckley. Whilst it is not anticipated that development would directly affect these designations, at this level of detail and given that the majority of these sites would be greenfield, there is a risk that these designations may be indirectly affected (e.g. via functionally linked land, disturbance, pollution etc.). Given the high value of these designations, it has been deemed necessary to apply a major negative score to this option, but with low certainty.</p> <p>The option promotes most development in and around established settlements with limited development in rural areas. This has the effect of avoiding development in the more sensitive areas of the county's landscape, notably the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB). Its proportional approach to development in settlements also means that effects on the character of settlements are spread evenly. Nevertheless, this numeric approach may mean that some settlements may receive too much development and their character may be affected, whereas others may have capacity to accept more. Similarly, it is anticipated that most development will be on greenfield sites and hence some settlements, notably the larger, Main Settlements would see their boundaries substantially enlarged. This has potential to affect the landscape/townscape character of these areas albeit they are not the most sensitive parts of the county.</p>	<p>It should be made clear that the option would not include development that would directly or indirectly affect designated areas of nature conservation value. There are opportunities to investigate this further and provide appropriate mitigation and avoidance once detailed sites are identified.</p>	<p>The highest growth options (high and medium scenarios) are likely to lead to the greatest pressures on the natural environment by using larger areas of greenfield land, increasing the likelihood of coinciding with valuable habitats and species (including protected sites) and putting a greater pressure on green infrastructure and wildlife connectivity. Cumulatively, the high growth options have greater potential to significantly affect the European designated sites, particularly along the coast and around Buckley, although it is difficult to determine at this scale if that would definitely manifest as an actual significant effect or if it could be mitigated. Similarly, the highest growth options increase the likelihood of adversely affecting settlement character and heritage, notably in some of the more sensitive rural villages.</p>
10. Land/ townscape	- S/M/L D I R L			
11. Heritage	- S/M/L D I R L			
12. Water	- S/M/L I R M			
13. Flooding	-- S/M/L I R M			
14. Air	- S/M/L I R M			
15. Energy	- S/M/L D R M			

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<p>16. Natural resources</p>	<p>- S/M/L D IR M</p>	<p>Heritage assets are spread throughout the county's settlements so whilst there are known concentrations in areas such as Holywell and Flint, it is not possible at this stage to say how the option could affect them, whether directly or indirectly through effects on setting. Note that effects on heritage assets can be best addressed at the local level where there is more site specificity. Nevertheless, this numeric approach to development does mean that most settlements will receive some form of growth irrespective of how sensitive they are in terms of heritage assets or historic character. Consequently, a negative score has been assigned on a precautionary basis but with low certainty.</p> <p>The majority of development in this option is located near to the coast or to rivers leading to an increased risk of water pollution. However, it should be feasible to minimise these risks and mitigate for them through careful planning, design and environmental management at the site-specific level. Similarly, the option proposes the majority of development in or close to areas of Flood Zone 2, notably in the Deeside area. It is recognised that large parts of Deeside are protected by flood defences although other areas are not afforded specific protection and may coincide with some of the proposed growth areas under this option. As such, on a precautionary basis, a major negative effect is assigned to the flood risk objective.</p> <p>Whilst the county does not have a significant air quality problem, and the proposed option works well to minimise emissions through locating development near to key centres of facilities and sustainable transport hubs, the growth proposed will undoubtedly increase car use and vehicle emissions overall compared with the baseline.</p> <p>Similarly, the amount of growth proposed will lead to an increase in energy use, waste production and natural resource use. Nonetheless, by encouraging development near to existing settlements and in the case of the proportion of growth near the largest settlements, the option means that some larger sites are likely to come forward and which increases the viability of providing schemes such as district heating, combined heat and power and development with strong sustainable design credentials. Similarly, the focus of development near to the largest settlements increases the likelihood of using brownfield land, although it is recognised that overall the majority of growth will still need to be on greenfield sites.</p>	<p>It may be possible to minimise the effects on landscape/townscape character, heritage, water quality and flood risk by a more bespoke approach to growth and also through careful planning of sites at the next stage of plan-making.</p>	<p>The same risk applies to water pollution, flood risk, air quality emissions and certainly to energy and natural resource use, where the higher the growth scenario, the greater the effect. Under the high and medium growth options in particular, greater emphasis would therefore be required to manage and mitigate these effects with higher standards of sustainable design.</p>
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SA Objective Topic	Option 2 Focused Urban Growth			
	Score	Commentary	Mitigation potential	Growth Scenario
1. Crime	+/- S/M/L I R L	All new housing development on greenfield sites has potential to create a new target for crime, especially as burglary is one of the most common types of crime in the county. However, the option also includes a focus of growth in areas in need of regeneration such as in Holywell, Flint and Deeside which currently exhibit the highest levels of crime deprivation in the county. Growth-led regeneration in these areas may help reduce crime levels.	Whilst crime is more than just a planning issue, it is possible to help avoid areas becoming a crime target through careful design and security measures. In order to mitigate for the negative effects assigned, it would be necessary to change the option so that some development in rural areas is included.	The highest growth scenario potentially offers the greatest overall benefits in terms of improving access to health, education and other services when compared with the medium and low options. It may also have the largest influence on crime levels compared to the other options. However, large quantities of housing may put pressure on existing services (schools, GPs) in the short-term until additional service provision catches up. Under all scenarios, there would be no benefits for rural areas or smaller settlements in need of investment.
2. Education	+/- M/L I R M	As with Option 1, this option promotes the majority of development around the largest concentrations of amenities in, e.g. the Main Service Centres including Mold, Flint and Deeside. These settlements have the largest concentrations of essential services and facilities such as schools, health care facilities, shops, post offices, jobs and community facilities in addition to being key public transport hubs which benefit sustainable access. Consequently, there are positive effects against many of the social Objectives. However, the option completely ignores development in rural areas and tier three settlements which also have needs that will not be met under this option. Many of these settlements have affordable housing needs that will not be met, limited access to health care and educational facilities or would benefit from regeneration investment. Consequently, both positive and negative effects have been assigned to these objectives demonstrating only partial success in achieving the required benefits.		
3. Health	+/- L I R M			
4. Housing	+/- S/M/L D I M			
5. Access	+/- S/M/L D I M	There is also a risk that the top two tiers of settlement may not have the capacity to accept the amount of development proposed and thereby it may not be possible to meet the full housing needs of the county (at least without resulting in negative effects on other issues such as the environment).		
6. Economy	+ S/M/L I R M	This option encourages all development near to the county's key employment areas such as the Deeside Enterprise Zone, Northern Gateway and Broughton. Some are close to employment opportunities, particularly in Cheshire, and thus conforms to the aspirations in the Wales Spatial Plan. This is both beneficial to economic growth and investment potential as well as encouraging proximity to jobs. Furthermore, growth is proposed in areas of higher employment and income deprivation (albeit not all) (mainly along the coast including Main Settlements such as Holywell and Flint) which can both help encourage economic investment in those areas and also put people closer to transport links in order to access other employment areas. This is very much focussed on the larger urban centres, however, and not the smaller settlements in, for example, the north of the county. Overall a minor positive score has been assigned to the economy and employment objectives despite most growth being located close to most jobs. The lack of a major positive score is due to it having little or no benefit to the rural economy. This option encourages no growth in rural areas so they gain no benefit. As discussed above this can have a negative effect on the rural life objective and seeks to increase the gap between the urban and rural economies. Some rural businesses may suffer due to in the main urban areas attracting investment away from them.	In order to mitigate for the negative effects assigned, it would be necessary to change the option so that some development in rural areas is included.	The highest growth options have a greater potential to benefit employment and the economy on the whole compared with the low growth option due to there being a greater emphasis on growth near to or accessible to the key employment areas. This would provide a larger labour market and help to encourage inward investment. However, as identified above, the highest growth options may not be deliverable due to physical or infrastructure constraints. In contrast the higher growth scenarios have the greatest potential to increase the gap between the urban and rural economies and potentially result in a polarisation of wealth between those areas.
7. Employment	+ S/M/L I R M			
8. Rural Life	- S/M/L I R M			
9. Biodiversity	- - S/M/L D I R M	The option promotes all development in the Main Settlements along the coast, in the Deeside area, in Mold/Buckley and in settlements along the Cheshire border. Many of these broad areas coincide with or are adjacent to designated nature conservation areas, notably the European level designations within the Dee Estuary and in and around Buckley. Whilst it is not anticipated that development would directly affect these designations, at this level of detail and given that the majority of these sites would be greenfield, there is a risk that these designations may be indirectly affected. Given the high value of these designations, it has been deemed necessary to apply a major negative score to this option, but with medium certainty. It is recognised that the option promotes no development in the sensitive rural areas, however, the proximity of major growth near to the European designations is sufficient to retain a major negative effect on a precautionary basis. The option promotes all development in and around established settlements with no development in rural areas. This has the effect of avoiding development in the more sensitive areas of the county's landscape, notably the AONB. It is likely that the quanta of development proposed (particularly under high growth scenarios) will mean that some of the urban centres will expand substantially (it is assumed that there will be an even spread between them) and hence may result in negative effects on the surrounding landscapes, albeit they are not the most sensitive parts of the county. Where possible brownfield sites will be developed first and these are largely located in these urban areas although this option would not seek to develop any brownfield sites located outside these areas. This also adds to the negative effect assigned against natural resources.	It should be made clear that the option would not include development that would directly or indirectly affect designated areas of nature conservation value. There are opportunities to investigate this further and provide appropriate mitigation and avoidance once detailed sites are identified. It may be possible to minimise the effects on landscape/townscape character, heritage, water quality and flood risk by amending the option to include a wider spread of development which includes a more bespoke approach to	The highest growth options (high and medium scenarios) are likely to lead to the greatest pressures on the natural environment by using larger areas of greenfield land, increasing the likelihood of coinciding with valuable habitats and species (including protected sites) and putting a greater pressure on green infrastructure and wildlife connectivity. Cumulatively, the high growth options have greater potential to significantly affect the European designated sites, particularly along the coast and around Buckley, although it is difficult to determine at this scale if that would definitely manifest as an actual significant effect or if it could be mitigated. Similarly, the highest growth options increase the likelihood of adversely affecting settlement character and heritage. The same risk applies to water pollution, flood risk, air quality emissions and certainly to energy and natural resource use, where the higher the growth scenario, the greater the effect. Under the high and medium growth options in particular, greater emphasis would therefore be required to manage and mitigate these effects with higher standards of sustainable design.
10. Land/townscape	- S/M/L D I R M			
11. Heritage	- S/M/L D I R H			
12. Water	- - S/M/L I D I R M			
13. Flooding	- S/M/L I D I R M			
14. Air	- S/M/L I D I R L	Heritage assets are spread throughout the county's settlements so whilst there are known concentrations in areas such as Holywell and Flint which would receive significant development under this option, it is not possible at this stage to say how the option could affect them with great certainty, whether directly or indirectly through effects on setting. Note that effects on heritage assets can be best addressed at the local level where there is more site		
15. Energy	- S/M/L I D R M			

<p>16. Natural resources</p>	<p>- S/M/L D I R L</p>	<p>specificity. It is assumed that all of the top tier settlements will receive some form of growth irrespective of how sensitive they are in terms of heritage assets or historic character. Consequently, a negative score has been assigned on a precautionary basis but with low certainty.</p> <p>The majority of development in this option is located near to the coast or to rivers leading to an increased risk of water pollution. However, it should be feasible to minimise these risks and mitigate for them through careful planning, design and environmental management at the site-specific level although this option does promote a larger amount of development in these areas than some other options. Similarly, the option proposes majority large amount of development in or close to areas of Flood Zone 2, notably in the Deeside area. It is recognised that large parts of Deeside are protected by flood defences although other areas are not afforded specific protection and may coincide with some of the proposed growth areas under this option. As such, on a precautionary basis, a major negative effect is assigned to the flood risk objective.</p> <p>Whilst the county does not have a significant air quality problem, and the proposed option works well to minimise emissions through locating development near to key centres of facilities and sustainable transport hubs, the growth proposed will undoubtedly increase car use and vehicle emissions overall compared with the baseline. Given the lack of growth in rural areas it is also likely that reliance on private car journeys in rural areas will not be addressed as people are required to continue to travel further to the top tier settlements for their goods and services.</p> <p>Similarly, the amount of growth proposed will lead to an increase in energy use, waste production and natural resource use. Nonetheless, by encouraging development near to existing settlements and in the case of the proportion of growth near the largest settlements, the option means that some larger sites are likely to come forward and which increases the viability of providing schemes such as district heating, combined heat and power and development with strong sustainable design credentials. Similarly, the focus of development near to the largest settlements increases the likelihood of using brownfield land, although it is recognised that overall the majority of growth will still need to be on greenfield sites.</p>	<p>growth and also through careful planning of sites at the next stage of plan-making.</p>
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SA Objective Topic	Option 3 Growth Area			
	Score	Commentary	Mitigation potential	Growth Scenario
1. Crime	- S/M/L I R L	<p>All new housing development on greenfield sites has potential to create a new target for crime, especially as burglary is one of the largest types of crime in the county. This option focuses development in areas situated in Wales Spatial Plan growth area only, so does not include development in some of the areas historically subject to higher levels of crime deprivation such as Flint and Holywell, as such this option does not have the same potential regeneration benefits for these areas as other options do.</p> <p>This option promotes the all new development in the east of the county. This corresponds with most of the largest service centres e.g. Mold, Deeside area, Buckley and close to the border with Chester. These settlements have the largest concentrations of essential services and facilities such as schools, health care facilities, shops, post offices, jobs and community facilities in addition to being key public transport hubs which benefit sustainable access. Consequently, there are positive effects against many of the social Objectives. However, the option completely ignores development in more than half the county, in areas to the north and west and notably in rural areas which also have needs that will not be met under this option. Many of these settlements have affordable housing needs that will not be met, limited access to health care and educational facilities or would benefit from regeneration investment. Consequently, both positive and negative effects have been assigned to these objectives demonstrating only partial success in achieving the required benefits.</p> <p>There is also no guidance about which exact settlements in this growth area should accommodate growth and how much. As such, some settlements may not physically be able to accommodate a large amount of growth due to environmental constraints or infrastructure capacity. Some of these settlements (although not all) may not have sufficient amenities to serve an increase in population. Whilst housing needs may be met in the growth area and this acknowledges the market attractiveness of this area, housing needs will not be met in most of the county outside this area. It is hence a very imbalanced option.</p>	<p>Whilst crime is more than just a planning issue, it is possible to help avoid areas becoming a crime target through careful design and security measures.</p> <p>In order to mitigate for the negative effects assigned, it would be necessary to change the option so that some development in rural areas and areas in the north and west of the county is included.</p>	<p>The highest growth scenario potentially offers the greatest benefits in terms of improving access to health, education and other services when compared with the medium and low options. It may also have the largest influence on crime levels compared to the other options. However, large quantities of housing may put pressure on existing services (schools, GPs) in the short-term until additional service provision catches up.</p> <p>The high growth (and possibly the medium growth) options may exacerbate the concern that some settlements may not have the capacity to accommodate the same levels of growth as other settlements in the Growth Area. Consequently, the higher growth options may not be deliverable compared to the low growth option. It is recommended that this is tested further with settlement specific capacity/viability studies.</p>
2. Education	+/- M/L I R M			
3. Health	+/- L I R M			
4. Housing	+/- S/M/L D I M			
5. Access	+/- S/M/L D I M			
6. Economy	+ S/M/L I R M	<p>This option encourages all development near to the county's key employment areas such as the Deeside Enterprise Zone, Northern Gateway and Broughton. Some are close to employment opportunities, particularly in Cheshire, and thus conforms to the aspirations in the Wales Spatial Plan. This is both beneficial to economic growth and investment potential as well as encouraging proximity to jobs. However, this option is very imbalanced. It ignores growth in other parts of the county that are either important economic growth areas in their own right (for example along the coast) or ignores areas of economic deprivation that would benefit from regeneration and investment. Worst-case this could in fact draw investment away from some areas of need and actively worsen issues of economic deprivation in those areas. Similarly, it has little or no benefit to the rural economy.</p> <p>Consequently, positive and negative effects have been assigned to the economy and employment objectives. Note, however that this is intended to be an economic-led option and it is likely that within the growth area, the economic benefits would be substantial. This mixed scoring is a result of the large disparity between interventions in the growth area and the lack of intervention anywhere else.</p> <p>This option again encourages no growth in rural areas so they gain no benefit. As discussed above this can have a negative effect on the rural life objective and seeks to increase the gap between the urban and rural economies. Some rural businesses may suffer due to in the main urban areas attracting investment away from them.</p>	<p>In order to mitigate for the negative effects assigned, it would be necessary to change the option so that some development in rural and north eastern areas is included.</p> <p>Notably, a more positive score could be assigned if there was some focus on other economically active areas such as along the north coast.</p>	<p>The highest growth options have a greater potential to benefit employment and the economy on the whole compared with the low growth option due to there being a greater emphasis on growth near to or accessible to the key employment areas. This would provide a larger labour market and help to encourage inward investment, although this would be concentrated in only one part of the county.</p> <p>However, as identified above, the highest growth options may not be deliverable due to physical or infrastructure constraints.</p> <p>In contrast, the higher growth scenarios have the greatest potential to increase the gap between the urban and rural economies and potentially result in a polarisation of wealth between those areas.</p> <p>It could also be argued that too much growth towards the east of the county could lead to that area being overdeveloped and in fact start to deter further investment in the future.</p>
7. Employment	+ S/M/L I R M			
8. Rural Life	- S/M/L I R M			
9. Biodiversity	- - S/M/L D I R M	<p>The option promotes all development in the south and east of the county including in the Deeside area, in Mold/Buckley and in settlements along the Cheshire border. Many of these broad areas coincide with or are adjacent to designated nature conservation areas, notably the European level designations within the Dee Estuary and in and around Buckley. Whilst it is not anticipated that development would directly affect these designations, at this level of detail and given that the majority of these sites would be greenfield, there is a risk that these designations may be indirectly affected. The high concentration of development in this area only also increases the likelihood of adverse effects occurring. Given the high value of these designations, it has been deemed necessary to apply a major negative score to this option, but with medium certainty. It is recognised that the option promotes no development in the sensitive rural areas, however, the proximity of major growth near to the European designations is sufficient to retain a major negative effect on a precautionary basis.</p>	<p>It should be made clear that the option would not include development that would directly or indirectly affect designated areas of nature conservation value. There are opportunities to investigate this further and provide appropriate mitigation and avoidance</p>	<p>The highest growth options (high and medium scenarios) are likely to lead to the greatest pressures on the natural environment by using larger areas of greenfield land, increasing the likelihood of coinciding with valuable habitats and species (including protected sites) and putting a greater pressure on green infrastructure and wildlife connectivity. Cumulatively, the high growth options have greater potential to significantly affect the European designated sites, particularly along at Deeside and around Buckley, although it is difficult to determine at this scale if that would definitely manifest as an actual significant effect or if it could be mitigated. Similarly, the highest growth options increase the</p>
10. Land/townscape	- S/M/L D I R M			
11. Heritage	- S/M/L D I R H			
12. Water	- - S/M/L I D I R M			

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13. Flooding	- S/M/L ID IR M	<p>The option promotes all development in the south and east of the county and explains little about exactly how much would go where. In the most part, it is assumed that development would be around established settlements. However, given the large concentration proposed in this area, it is likely that the local landscapes in the east of the county will be put under pressure, including in and around numerous smaller villages and settlements. Although the most sensitive parts of the county are avoided (notably the AONB and rural areas to the north and west), such a high concentration of development in the east is likely to significantly alter the semi-rural nature of some areas which would effectively become more sensitive to development at a large scale. Where possible brownfield sites will be developed first and these are largely located in the biggest urban areas (mainly in this area) although this option would not seek to develop any brownfield sites located outside these areas. This also adds to the negative effect assigned against natural resources.</p>	<p>once detailed sites are identified.</p>	<p>likelihood of adversely affecting settlement character and heritage, especially due to the high concentrations in one part of the county only.</p>
14. Air	- S/M/L ID IR L			
15. Energy	- S/M/L ID R M			
16. Natural resources	- S/M/L D IR L	<p>Heritage assets are spread throughout the county's settlements so whilst this option avoids some of the known concentrations in areas such as Holywell, Flint and indeed avoids development in most of the county, it is not possible at this stage to say how the option could affect them with great certainty, whether directly or indirectly through effects on setting. It is feasible that due to the large concentration of development proposed in one portion of the county, there may be a higher likelihood of encountering heritage assets or affecting historic character. Note that effects on heritage assets can be best addressed at the local level where there is more site specificity.</p> <p>The majority of development in this option is located near to the coast (Deeside) or to rivers leading to an increased risk of water pollution. However, it should be feasible to minimise these risks and mitigate for them through careful planning, design and environmental management at the site-specific level although this option does promote a larger amount of development in these areas than some other options. Similarly, the option proposes majority large amount of development in or close to areas of Flood Zone 2, notably in the Deeside area. It is recognised that large parts of Deeside are protected by flood defences although other areas are not afforded specific protection and may coincide with some of the proposed growth areas under this option. As such, on a precautionary basis, a major negative effect is assigned to the flood risk objective.</p> <p>Whilst the county does not have a significant air quality problem, and the proposed option works well to minimise emissions through locating development near to key centres of facilities and sustainable transport hubs, the very high concentrations in one part of the county are likely to increase potential traffic growth and congestion in those areas and may lead to an exacerbation of adverse air quality locally. This is potentially worse than for the other options. The growth proposed will undoubtedly increase car use and vehicle emissions overall compared with the baseline. Given the lack of growth in rural areas it is also likely that reliance on private car journeys in rural areas will not be addressed as people are required to continue to travel further to the top tier settlements for their goods and services.</p> <p>Similarly, the amount of growth proposed will lead to an increase in energy use, waste production and natural resource use. Nonetheless, by encouraging development near to existing settlements and in the case of the proportion of growth near the largest settlements, the option means that some larger sites are likely to come forward and which increases the viability of providing schemes such as district heating, combined heat and power and development with strong sustainable design credentials. Similarly, the focus of development near to the largest settlements increases the likelihood of using brownfield land, although it is recognised that overall the majority of growth will still need to be on greenfield sites.</p>	<p>It may be possible to minimise the effects on landscape/townscape character, heritage, water quality and flood risk by amending the option to include a wider spread of development which includes a more bespoke approach to growth and also through careful planning of sites at the next stage of plan-making.</p>	<p>The same risk applies to water pollution, flood risk, air quality emissions and certainly to energy and natural resource use, where the higher the growth scenario, the greater the effect. Under the high and medium growth options in particular, greater emphasis would therefore be required to manage and mitigate these effects with higher standards of sustainable design.</p>

SA Objective Topic	Option 4 Hubs and Corridors			
	Score	Commentary	Mitigation potential	Growth Scenario
1. Crime	+/- S/M/L I R L	<p>This option does not directly focus development in sustainable settlements but rather promotes development in any settlement that is on a transport corridor. In many cases these coincide with sustainable settlements but in others do not. It is also not clear what the spread of development between the settlements would be at this stage only that all the identified areas would receive some growth. This is not a well-balanced option in that some settlements may be able to accommodate more growth sustainably, others may receive growth that is not needed or inappropriate and some settlements that require growth would be ignored.</p> <p>All new housing development on greenfield sites has potential to create a new target for crime and there is an argument to say that areas that are well connected by road can be targeted for burglary. However, the option also includes a focus of growth in areas in need of regeneration such as in Holywell, Flint and Deeside which currently exhibit the highest levels of crime deprivation in the county. Growth-led regeneration in these areas may help reduce crime levels.</p> <p>This option promotes development in settlements on key transport links. These include all the larger service centres in the county e.g. Mold, Deeside area, Buckley and close to the border with Chester. These settlements have the largest concentrations of essential services and facilities such as schools, health care facilities, shops, post offices, jobs and community facilities in addition to being key public transport hubs which benefit sustainable access. Consequently, there are positive effects against many of the social Objectives. However, the option also promotes development in settlements that do not have access to these services at all or do not have the capacity or infrastructure in place for development. It ignores some settlements that do have services and capacity which hence could be more sustainable. Some of these ignored settlements have affordable housing needs that will not be met, limited access to health care and educational facilities or would benefit from regeneration investment. Consequently, both positive and negative effects have been assigned to these objectives demonstrating only partial success in achieving the required benefits.</p> <p>Whilst the concept of development on transport links would, in theory, be positive for the access objective, it is not as beneficial as it might be. As described above, this option does not always maximise growth in the areas that have the most services to offer. It also relies on some inappropriate transport links. For example, the A55(T) and A494 are intended to be strategic roads not necessarily to be relied on for local journeys and there are limitations with the capacity of the rails system at present. The emphasis should be on minimising the need/distance to travel and encourage means such as walking, cycling and public transport as a priority rather than by private car.</p>	<p>Whilst crime is more than just a planning issue, it is possible to help avoid areas becoming a crime target through careful design and security measures.</p> <p>In order to mitigate for the negative effects assigned, it would be necessary to change the option so that some development in rural areas and sustainable settlements is included.</p> <p>Improved levels of infrastructure, public transport provision including improved rail capacity could benefit this option.</p>	<p>A large number of settlements are identified across the county. The highest growth scenario potentially offers the greatest benefits in terms of improving access to health, education and other services when compared with the medium and low options but only in and around those settlements that contain these facilities. A large amount of development in unsustainable settlements would not benefit these objectives and could put undue pressure on services. It may also have the largest influence on crime levels compared to the other options. In the long-term the high and medium growth options may benefit rural service viability by providing a larger local market although this option is sporadic in its provision for rural growth.</p> <p>The high growth (and possibly the medium growth) options may exacerbate the concern that some settlements may not have the capacity or attractiveness to accommodate the same levels of growth as other settlements. Consequently, the higher growth options may not be deliverable compared to the low growth option. It is recommended that this is tested further with settlement specific capacity/viability studies.</p>
2. Education	+/- M/L I R M			
3. Health	+/- L I R M			
4. Housing	+/- S/M/L D I M			
5. Access	+ S/M/L D I M			
6. Economy	+ S/M/L I R M	<p>This option encourages all development near to transport links which will be beneficial for commuting to employment opportunities in the county and beyond (e.g. Cheshire and Wrexham). This is both beneficial to economic growth and inward investment potential as well as encouraging proximity to jobs as many of the employment centres also sit along key transport corridors (notably those in Deeside, Mold, Broughton etc.). Furthermore, growth is proposed in areas of higher employment and income deprivation (mainly along the coast including Main Settlements such as Holywell and Flint) which can both help encourage economic investment in those areas. This is positive for the local economy although it is not assigned a major positive score because development is also spread relatively thinly to include numerous areas that are not employment centres or do not have employment/economic needs. Similarly, the provision for rural growth is inconsistent and does not give a real consideration to rural needs as a whole unless such villages lie on a transport corridor.</p> <p>Whilst some rural areas near transport hubs could benefit from this option it may be that those areas would receive too much, unsustainable growth that may not be required and may be better directed elsewhere. If such centres do not have sufficient services to support a larger population that would result in increased car travel. Those rural areas not near transport hubs, will suffer from development neglect. Local businesses in these rural areas in particular may suffer and the disparity between rural and urban economic prosperity could enlarge. Overall, this is considered to be more negative than positive for the rural life objective despite some rural development being included as it is considered that this is likely to be inappropriate.</p>	<p>In order to mitigate for the negative effects assigned, it would be necessary to change the option so that the areas for growth are based on more than just transport factors. This would include the consideration of existing employment areas and economic needs irrespective of proximity to a major transport link.</p>	<p>The highest growth options have a greater potential to benefit employment and the economy compared with the low growth option due to there being a greater emphasis on growth near to or accessible to the key employment areas. This would provide a larger labour market and help to encourage inward investment. In contrast, those areas that would receive large amounts of inappropriate growth that do not have strong economic needs would be unnecessarily burdened by development.</p> <p>However, as identified above, the highest growth options may not be deliverable in all areas due to physical or infrastructure constraints. Notably this may not deliver the required benefits in more rural settlements. Indeed, too much growth in some rural areas may have an adverse effect on settlement character and the quality of life on those areas. A balanced and more bespoke approach in certain settlements is therefore considered more appropriate.</p>
7. Employment	+ S/M/L I R M			
8. Rural Life	- S/M/L I R M			
9. Biodiversity	- - S/M/L D I R M	<p>The option promotes a wide spread of development across the county in line with the strategic transport corridors. This would result in a large amount of development along the coastline, in the Deeside area, in Mold/Buckley, in settlements along the Cheshire border and in some rural areas. Many of these broad areas coincide with or are adjacent to designated nature conservation areas, notably the European level designations within the Dee Estuary and in and around Buckley. Whilst it is not anticipated that development would directly affect these designations, at this level of detail and given that the majority of these sites would be greenfield, there is a risk that these designations may be indirectly affected. The option also includes some rural development, including potentially some in the AONB (Cadole) which, if developed at a large scale and inappropriately may also lead to a loss of biodiversity.</p>	<p>It should be made clear that the option would not include development that would directly or indirectly affect designated areas of nature conservation value. There are opportunities to investigate this further and provide appropriate</p>	<p>The highest growth options (high and medium scenarios) are likely to lead to the greatest pressures on the natural environment by using larger areas of greenfield land, increasing the likelihood of coinciding with valuable habitats and species (including protected sites) and putting a greater pressure on green infrastructure and wildlife connectivity. Cumulatively, the high growth options have greater potential to significantly affect the European designated sites, particularly along at Deeside and around Buckley, although it</p>
10. Land/townscape	- - S/M/L D I R M			
11. Heritage	- S/M/L D I R H			

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12. Water	- S/M/L ID IR M	The wide spread of development also has the greatest potential of the options to result in cumulative effects on landscape character and potentially historic landscape. It is not known at this stage how much development would occur in each settlement although it is assumed that this option provides proportionally less in some of the larger settlements (which can better absorb more growth) than other options with more in other settlements along transport corridors. It is likely that many of these settlements may be inappropriate for large scale development and, as a result, its character would be adversely affected. The option also proposes some development in the AONB (Cadole). Again, the amount is not yet known so on a precautionary basis a major negative effect has been assigned to the landscape objective.	mitigation and avoidance once detailed sites are identified. It may be possible to avoid or minimise some effects through local-level surveys, careful design and micro-siting.	is difficult to determine at this scale if that would definitely manifest as an actual significant effect or if it could be mitigated. Similarly, the highest growth options increase the likelihood of adversely affecting settlement character and heritage, especially due to the relatively formulaic approach to growth.
13. Flooding	- S/M/L ID IR M			
14. Air	+/- S/M/L ID IR L	Heritage assets are spread throughout the county's settlements so whilst there are known concentrations in areas such as Holywell and Flint, it is not possible at this stage to say how the option could affect them, whether directly or indirectly through effects on setting. Note that effects on heritage assets can be best addressed at the local level where there is more site specificity. Nevertheless, this approach does mean that a large number of settlements will receive some form of growth irrespective of how sensitive they are in terms of heritage assets or historic character. Consequently, a negative score has been assigned on a precautionary basis but with low certainty.	It may be possible to minimise the effects on landscape/townscape character, heritage, water quality and flood risk by amending the option to ensure a more bespoke approach to growth and also through careful planning of sites at the next stage of plan-making.	The same risk applies to water pollution, flood risk, air quality emissions and certainly to energy and natural resource use, where the higher the growth scenario, the greater the effect. Under the high and medium growth options in particular, greater emphasis would therefore be required to manage and mitigate these effects with higher standards of sustainable design.
15. Energy	- S/M/L ID IR M			
16. Natural resources	- S/M/L D IR L	<p>A large amount of development in this option is located in settlements by the coast or to rivers leading to an increased risk of water pollution. However, it should be feasible to minimise these risks and mitigate for them through careful planning, design and environmental management at the site-specific level although this option does promote a larger amount of development in these areas than some other options. Similarly, the option proposes majority large amount of development in or close to areas of Flood Zone 2, notably in the Deeside area. It is recognised that large parts of Deeside are protected by flood defences although other areas are not afforded specific protection and may coincide with some of the proposed growth areas under this option. As such, on a precautionary basis, a major negative effect is assigned to the flood risk objective.</p> <p>The county does not have a significant air quality problem. By promoting all new development by transport corridors this should theoretically maximise the use of bus and train services which should in turn limit the use of the private car. However, conversely by locating so much development by roads (primarily strategic roads) car use for many will in fact be preferable so could cancel out any benefits. The A55(T) and A494 are intended to be strategic roads not necessarily to be relied on for local journeys and there are limitations with the capacity of the rails system at present. The emphasis should be on minimising the need/distance to travel and encourage means such as walking, cycling and public transport as a priority rather than by private car. At this level both positive and negative effects have been assigned to air quality and greenhouse gas emissions to reflect this mixed effect.</p> <p>Similarly, the amount of growth proposed will lead to an increase in energy use, waste production and natural resource use. Nonetheless, by encouraging development near to existing including larger settlements, the option means that some larger sites are likely to come forward and which increases the viability of providing schemes such as district heating, combined heat and power and development with strong sustainable design credentials. Similarly, the focus of development near to the largest settlements increases the likelihood of using brownfield land, although it is recognised that overall the majority of growth will still need to be on greenfield sites.</p>		

SA Objective Topic	Option 5 Sustainable Distribution and Refined Approach to Rural Settlements			
	Score	Commentary	Mitigation potential	Growth Scenario
1. Crime	+/- S/M/L I R L	<p>The basis of this option is the same as for Option1. However, rather than the same amount of development being spread across each of the Define and Undefined Rural Villages, a more case-by-case approach is taken to the amount of development in those areas based on physical, environmental and other constraints/opportunities. Whilst the exact approach to rural development is still uncertain, it is assumed that factors such as: access to healthcare, primary schools, essential services and housing needs will all be considered. Therefore, this option has potential to result on a greater spread of benefits that Option 1 against these SA topics – it retains the positive features of Option 1 in terms of focussing development in the larger, more accessible settlements with most services but also provides for development in rural areas as and where it is appropriate. This provides a more flexible approach than Option 1 and allows a greater recognition of local issues in rural areas.</p> <p>What is not known at this level is whether or not development that is needed in some rural settlements (e.g. affordable housing) could definitely be provided if there are other constraints that cannot be overcome. As such, whilst more positive scores are provided than Option1, a lower level of certainty in the outcome is also provided.</p> <p>As with the other options. all new housing development on greenfield sites has potential to create a new target for crime, especially as burglary is one of the largest types of crime in the county. However, the option also includes a focus of growth in areas in need of regeneration such as in Holywell, Flint and Deeside which currently exhibit the highest levels of crime deprivation in the county. Growth-led regeneration in these areas may help reduce crime levels.</p>	<p>Whilst crime is more than just a planning issue, it is possible to help avoid areas becoming a crime target through careful design and security measures.</p> <p>A strong consideration of rural housing needs, viability and access to essential services should feature in the development of the refined approach to rural development.</p>	<p>As with Option 1, the highest growth scenario potentially offers the greatest benefits in terms of improving access to health, education and other services when compared with the medium and low options. It may also have the largest influence on crime levels compared to the other options. However, large quantities of housing may put pressure on existing services (schools, GPs) in the short-term until additional service provision catches up. In the long-term the high and medium growth options may benefit rural service viability by providing a larger local market, although this depends on exactly where growth is eventually proposed in these areas.</p> <p>Option 1 identified that the high growth (and possibly the medium growth) options may exacerbate the concern that some settlements may not have the capacity or attractiveness to accommodate the same levels of growth as other same tier settlements. Consequently, the higher growth options may not be deliverable compared to the low growth option. This option seeks to overcome this issue by ensuring a that rural growth is guided by local circumstances and this is expected to include viability and market attractiveness issues.</p>
2. Education	++ M/L I R L			
3. Health	++ L I R L			
4. Housing	++ S/M/L D I L			
5. Access	++ S/M/L D I L			
6. Economy	+ S/M/L I R M	<p>As with Option 1, this option encourages the largest proportion of development near to the county's key employment areas such as the Deeside Enterprise Zone, Northern Gateway, Broughton etc. These areas are also close to and easily accessible to employment opportunities in Cheshire and Wrexham and thus conforms to the aspirations in the Wales Spatial Plan. Otherwise growth near to other Main Settlements and Local Service Centres provides proximity to public transport to enable other employment areas to be accessed readily. This is both beneficial to economic growth and investment potential as well as encouraging proximity to jobs. Furthermore, growth is proposed in areas of higher employment and income deprivation (mainly along the coast including Main Settlements such as Holywell and Flint) which can both help encourage economic investment in those areas and also put people closer to transport links in order to access other employment areas. Given the spread of development across the county, it could be considered that economic development would be spread more thinly than it needs to be.</p> <p>In terms of rural issues, unlike Option 1, the amount of growth proposed in the Defined and Undefined Rural Villages will depend upon local circumstances. It is assumed that the consideration of issues such as rural service viability, appropriate rural employment and communications will be factored in to this and hence the rural life objective will be more fully achieved than with Option 1. As such, whilst more positive scores are provided than Option1, a lower level of certainty in the outcome is also provided.</p>	<p>A strong consideration of rural service viability, infrastructure provision and appropriate rural employment needs should be considered in the development of the refined approach to rural development.</p>	<p>The highest growth options have a greater potential to benefit employment and the economy compared with the low growth option due to there being a greater emphasis on growth near to or accessible to the key employment areas. This would provide a larger labour market and help to encourage inward investment.</p> <p>However, as identified above, the highest growth options may not be deliverable due to physical or infrastructure constraints. Notably this may not deliver the required benefits in more rural settlements. However, the more flexible and bespoke approach promoted by this option means that instances of too much or inappropriate development in some villages would be avoided.</p>
7. Employment	+ S/M/L I R M			
8. Rural Life	+ S/M/L I R L			
9. Biodiversity	- - S/M/L I R L	<p>The option promotes the majority of development in the Main Settlements along the coast, in the Deeside area and in Mold/Buckley. Most of these broad areas coincide with or are adjacent to designated nature conservation areas, notably the European level designations within the Dee Estuary and in and around Buckley. Whilst it is not anticipated that development would directly affect these designations, at this level of detail and given that the majority of these sites would be greenfield, there is a risk that these designations may be indirectly affected. Given the high value of these designations, it has been deemed necessary to apply a major negative score to this option, but with low certainty. Compared to Option 1, this option does provide more flexibility in terms of development in rural areas with respect to environmental constraints. However, this option still promotes the majority of development near to designated sites.</p> <p>The option promotes most development in and around established settlements with limited development in rural areas. Indeed, in the Defined and Undefined villages it is assumed that landscape/settlement character and visual amenity will be important factors in deciding how much development a village can receive. This has the effect of avoiding development in the more sensitive areas of the county's landscape, notably the AONB. Its proportional approach to development in the larger settlements also means that effects on the character of settlements are spread evenly. It is anticipated that most development will be on greenfield sites and hence some settlements, notably the larger, Main Settlements would see their boundaries substantially enlarged. This has potential to affect the landscape/townscape character of these areas albeit they are not the most sensitive parts of the county. A minor negative effect has still been applied as with Option 1 even though the effects in rural areas should be more limited.</p> <p>Heritage assets are spread throughout the county's settlements so whilst there are known concentrations in areas such as Holywell and Flint, it is not possible at this stage to say how the option could affect them, whether directly or indirectly through</p>	<p>It should be made clear that the option would not include development that would directly or indirectly affect designated areas of nature conservation value. There are opportunities to investigate this further and provide appropriate mitigation and avoidance once detailed sites are identified.</p> <p>A strong consideration of the effects on landscape/townscape character, heritage,</p>	<p>The highest growth options (high and medium scenarios) are likely to lead to the greatest pressures on the natural environment by using larger areas of greenfield land, increasing the likelihood of coinciding with valuable habitats and species (including protected sites) and putting a greater pressure on green infrastructure and wildlife connectivity. Cumulatively, the high growth options have greater potential to significantly affect the European designated sites, particularly along the coast and around Buckley, although it is difficult to determine at this scale if that would definitely manifest as an actual significant effect or if it could be mitigated. Similarly, the highest growth options increase the likelihood of adversely affecting settlement character and heritage, notably in some of the more sensitive rural villages, although under this option it is assumed that any such impacts would be avoided through a more bespoke approach to growth in these areas – there remains some uncertainty surrounding this until the approach is developed.</p>
10. Land/ townscape	- S/M/L D I R L			
11. Heritage	- S/M/L D I R L			
12. Water	- S/M/L I R M			
13. Flooding	- - S/M/L I R M			
14. Air	- S/M/L I R M			
15. Energy	- S/M/L D R M			
16. Natural resources	- S/M/L D I R M			

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	<p>effects on setting. Note that effects on heritage assets can be best addressed at the local level where there is more site specificity. Nevertheless, this numeric approach to development in the larger settlements (albeit with a more tailored approach in villages) does mean that most of the larger settlements will receive some form of growth irrespective of how sensitive they are in terms of heritage assets or historic character. Consequently, a negative score has been assigned on a precautionary basis but with low certainty.</p> <p>The majority of development in this option is located near to the coast or to rivers leading to an increased risk of water pollution. However, it should be feasible to minimise these risks and mitigate for them through careful planning, design and environmental management at the site-specific level. Similarly, the option proposes the majority of development in or close to areas of Flood Zone 2, notably in the Deeside area. It is recognised that large parts of Deeside are protected by flood defences although other areas are not afforded specific protection and may coincide with some of the proposed growth areas under this option. As such, on a precautionary basis, a major negative effect is assigned to the flood risk objective.</p> <p>Whilst the county does not have a significant air quality problem, and the proposed option works well to minimise emissions through locating development near to key centres of facilities and sustainable transport hubs, the growth proposed will undoubtedly increase car use and vehicle emissions overall compared with the baseline.</p> <p>Similarly, the amount of growth proposed will lead to an increase in energy use, waste production and natural resource use. Nonetheless, by encouraging development near to existing settlements and in the case of the proportion of growth near the largest settlements, the option means that some larger sites are likely to come forward and which increases the viability of providing schemes such as district heating, combined heat and power and development with strong sustainable design credentials. Similarly, the focus of development near to the largest settlements increases the likelihood of using brownfield land, although it is recognised that overall the majority of growth will still need to be on greenfield sites.</p>	<p>water quality and flood risk should be considered in the development of the refined approach to rural development.</p>	<p>The same risk applies to water pollution, flood risk, air quality emissions and certainly to energy and natural resource use, where the higher the growth scenario, the greater the effect. Under the high and medium growth options in particular, greater emphasis would therefore be required to manage and mitigate these effects with higher standards of sustainable design.</p>
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APPENDIX A

SA Framework

SA Objective and Sub-Objectives	Indicators	Targets	Source
1. To reduce crime, disorder and fear of crime			
<ul style="list-style-type: none"> ▪ To reduce levels of crime ▪ To reduce the fear of crime ▪ To reduce levels of anti-social behaviour ▪ To reduce burglary rates ▪ To encourage safety by design 	<p>Crime rates per 1,000 of the population for key offences.</p> <p>Number and distribution of wards with LSOAs in the bottom 10% most deprived for crime deprivation.</p>	<p>Reduce crime rates below current level.</p> <p>To reassure the public, reduce the fear of crime and anti-social behaviour.</p> <p>Reduce the number of wards with LSOAs in the bottom 10% most deprived.</p>	<p>Flintshire Improvement Plan 2014-2015</p>
2. To improve levels of educational attainment for all age groups and all sectors of society			
<ul style="list-style-type: none"> ▪ To increase levels of participation and attainment in education for all members of society ▪ To improve access to and involvement in lifelong learning opportunities ▪ To improve the provision of education and training facilities 	<p>Percentage of learners in local authority schools achieving five or more GCSEs at Grades A* - C or the vocational equivalent.</p> <p>Reduction of surplus places.</p> <p>Outcomes in Mathematics, English / Welsh 1st Language and Core Subject Indicator at all Key Stages</p> <p>Completion of 21st Century school milestones in line with target dates</p> <p>Percentage of people aged 16-74 achieving National Vocational Qualification (NVQ) level 4/5.</p> <p>Percentage of resident population aged 16-74 with no qualifications.</p> <p>Number of educational establishments within the County.</p> <p>Percentage of people aged 16-74 who have attained either a Level 4 or Level 5 qualification.</p> <p>Percentage of people aged 16-74 who have attained NVQ Levels 1-4.</p>	<p>Improve skills in literacy and numeracy.</p> <p>Continuing the implementation of 21st Century Schools programme</p> <p>Improve the education, training and employment prospects for young people up to 25 years of age</p>	<p>Flintshire Improvement Plan 2014-2015</p> <p>A Single Integrated Plan for Flintshire 2013 - 2017</p>

SA Objective and Sub-Objectives	Indicators	Targets	Source
3. To improve physical and mental health and wellbeing for all and reduce health inequalities			
<ul style="list-style-type: none"> ▪ To improve access to health and social care services especially in isolated areas ▪ To reduce health inequalities amongst different groups in the community ▪ To promote healthy lifestyles ▪ Encourage the development of strong, cohesive communities 	<p>Number of wards in the bottom 10% for health deprivation and disability.</p> <p>Percentage resident population who consider themselves to be in good health.</p> <p>Life expectancy at birth for males and females.</p> <p>Standardised Mortality Ratio and infant mortality rates.</p> <p>Percentage of people classified as being in good or very good health.</p> <p>Percentage of people participating in regular sport or exercise (defined as taking part on at least 3 days a week in moderate intensity sport and active recreation for at least 30 minutes continuously in any one session).</p> <p>Conception rate of under-18 year olds (per 1,000 15-17 year olds).</p>	<p>Improve the accessibility of health information, services and advice.</p> <p>Reduce infant mortality rates.</p> <p>Improve accessibility of health and health promoting services especially for the hard to reach and vulnerable people which will also help to increase the percentage of people classified as being in either good or very good health.</p> <p>Reduce rate of teenage conception.</p> <p>Reduce the number of wards with LSOAs in the bottom 10% most deprived for health deprivation.</p> <p>Ensure that all communities have appropriate, available and accessible green space provision.</p>	<p>Good Health Good Care in Flintshire 2011-2014</p> <p>A Green Space Framework Strategy for Flintshire 2013</p>
4. To provide access to good quality, affordable housing that meets the needs and requirements of the community			
<ul style="list-style-type: none"> ▪ Ensure that there is sufficient housing to meet identified needs in all areas ▪ Ensure that housing meets acceptable standards ▪ Increase the availability of affordable housing 	<p>Average house prices compared to regional / national averages.</p> <p>Percentage of households living in type of accommodation.</p> <p>Number of houses in multiple occupation.</p> <p>Additional affordable housing provision.</p> <p>Proportion of housing vacant.</p>	<p>Improve housing conditions in deprived areas.</p> <p>Housing quality – Building for Life Assessments should achieve a score of 100%.</p> <p>Provide a range of housing including affordable housing.</p> <p>To reduce the number of LSOAs in the bottom 10% most deprived for barriers to housing and services deprivation.</p>	<p>Flintshire Local Housing Strategy 2012-2017</p>

SA Objective and Sub-Objectives	Indicators	Targets	Source
5. To improve sustainable access to basic goods, services and amenities for all groups			
<ul style="list-style-type: none"> ▪ Ensure that public transport services meet people's needs ▪ Ensure that highways infrastructure meets people's needs (including walking and cycling routes) ▪ Promote the use of sustainable travel modes and reduce dependence on the private car ▪ Improve access to cultural and recreational facilities ▪ Maintain and improve access to essential services and facilities, including in rural areas ▪ Improve access to open space ▪ Conserve and enhance opportunities for public access to the countryside and coast 	<p>Journey to work by mode. Distance travelled to work. Road condition. Number of wards in bottom 10% of most deprived in terms of barriers to and services provision. Percentage of residents finding it easy to access key local services within their neighbourhood.</p>	<p>Reduce the number of LSOAs in the bottom 10%. Increase access to isolated areas. Improve transport links to rural communities, particularly sustainable transport provision.</p>	<p>Flintshire Regeneration Strategy 2009-2020 Draft North Wales Joint Local Transport Plan 2015-2020 Flintshire County Council Open Space Survey 2007 Flint Strategy and Masterplan to 2021 Buckley Town Action Plan 2009-2012</p>
6. To promote a sustainable economy, business development and investment			
<ul style="list-style-type: none"> ▪ To encourage economic growth ▪ To diversify the economy and encourage new business formation and inward investment ▪ To encourage and promote sustainable tourism within the County. 	<p>Gross Value Added per head. Value Added Tax. Economic activity rate.</p>	<p>To increase economic activity rate. To increase new business start-ups.</p>	<p>Flintshire Regeneration Strategy 2009-2020</p>
7. To provide employment opportunities across the County and promote economic inclusion			
<ul style="list-style-type: none"> ▪ To increase employment opportunities across the County 	<p>Number of LSOAs in bottom 10% employment deprived.</p>	<p>To reduce number of wards with LSOAs in the bottom 10% for employment deprivation.</p>	<p>Flintshire Regeneration Strategy 2009-2020</p>

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SA Objective and Sub-Objectives	Indicators	Targets	Source
<ul style="list-style-type: none"> ▪ To improve access to jobs ▪ To reduce levels of child and fuel poverty within the County 	<p>Percentage working unemployed.</p> <p>Employment in different sectors.</p> <p>Employment in different occupation groups.</p> <p>Number of LSOAs in bottom 10% for income deprivation.</p>	<p>To reduce number of wards with LSOAs in the bottom 10% for income deprivation.</p> <p>Increase number of Flintshire residents assisted by Flintshire County Council to maximise their income.</p> <p>Increase the number of Council homes receiving energy efficiency measures.</p> <p>Increase small – medium sized enterprise (SME) employment.</p> <p>Increase the number of individuals receiving support to access employment,</p>	<p>Flintshire Improvement Plan 2014-2015</p>
8. To maintain and improve the quality of life in rural areas			
<ul style="list-style-type: none"> ▪ To support rural diversification ▪ To encourage ICT / broadband links in rural areas 	<p>Number of diversification schemes.</p> <p>Number of farmers markets.</p>	<p>Increase the number of people benefiting from new rural services to support.</p> <p>Support schemes that will raise the standard of living and quality of life in rural communities</p>	<p>Flintshire Regeneration Strategy 2009-2020</p>
9. To protect and enhance biodiversity			
<ul style="list-style-type: none"> ▪ To protect and enhance designated sites of nature conservation importance ▪ To protect the integrity of European, proposed European and listed Ramsar sites, or where not at a favourable conservation status, enhance their interest features ▪ To protect and enhance wildlife especially rare and endangered species ▪ To protect and enhance habitats and wildlife corridors 	<p>Number and distribution of designated sites including SACs, SPAs, Ramsar sites, SSSI, National Nature Reserves (NNR), Local Nature Reserves (LNR).</p> <p>Condition of SSSIs.</p> <p>Areas of woodland, including ancient woodland.</p> <p>Key Biodiversity Action Plan (BAP) species and habitats present within the County.</p> <p>Number of development schemes which design in urban biodiversity areas.</p> <p>Number of habitats created and maintained in urban and rural areas.</p>	<p>No net loss in the number of sites, extent and current features of interest.</p> <p>There are a number of targets specific to each habitat and species action plan - although these may be too detailed for the LDP.</p> <p>No net loss in the area or number of sites of ancient woodland.</p> <p>To enhance the value of Flintshire green spaces as wildlife habitats.</p> <p>To improve the connectivity between green spaces as a network of green corridors accessible to both people and wildlife.</p>	<p>Flintshire County Council NRW</p> <p>A Greenspace Framework Strategy for Flintshire 2013</p> <p>Flintshire County Council Open Space Survey 2007</p> <p>Flint Strategy and Masterplan to 2021</p> <p>Buckley Town Action Plan 2009-2012</p> <p>Flintshire Coastal Park Green Infrastructure Action Plan 2011</p>

SA Objective and Sub-Objectives	Indicators	Targets	Source
<ul style="list-style-type: none"> ▪ To conserve, enhance and create appropriate wildlife habitats and wider biodiversity in urban and rural areas ▪ To avoid damage or fragmentation of designated sites, habitats and protected species and encourage their enhancement and connection ▪ To provide opportunities for people to access wildlife and open green spaces ▪ To protect and enhance geodiversity 		<p>Creation of green link harnessing the Town's existing open/green space and Waterfront.</p> <p>Where appropriate provide additional habitats such as wetland/ponds or scrub to increase interest and biodiversity value on greenspace.</p>	
10. To conserve and enhance the County's landscape and townscape character and quality			
<ul style="list-style-type: none"> ▪ To protect and enhance areas of landscape character and quality ▪ To protect and enhance townscape character and quality ▪ To respect and enhance local distinctiveness and diversity ▪ To promote sensitive design in development ▪ To protect and enhance the enjoyment of geological resources 	<p>Landscape / townscape characterisation .Landscapes of Historic Importance.</p> <p>Distribution and area of AONBs, National Parks and county landscape designations.</p>	<p>No development in open countryside contrary to policy. Conserve and enhance the Special Qualities and distinctive character of the AONB's landscape and associated features.</p> <p>Protect the tranquillity of the AONB and take steps where possible to reduce noise and light pollution.</p>	<p>Clwydian Range AONB Management Plan 2009-2014</p> <p>Flintshire Coastal Park Green Infrastructure Action Plan 2011</p>
11. To protect and enhance the cultural heritage assets			
<ul style="list-style-type: none"> ▪ To protect and enhance heritage assets including Listed Buildings, Scheduled Monuments and Historic Landscapes ▪ To protect and enhance historic landscape value 	<p>Number and distribution of Listed Buildings, Scheduled Monuments, Conservation Areas, Historic Landscapes and Registered Parks and Gardens.</p> <p>Number of Listed Buildings, on the at risk register.</p>	<p>No increase in the number of Listed Buildings on the at risk register.</p> <p>No loss or damage through development to designated sites and buildings.</p> <p>No loss of land within the register of historic landscape or within historic parklands.</p>	<p>Flintshire County Council</p> <p>Cadw</p>

SA Objective and Sub-Objectives	Indicators	Targets	Source
	<p>Number of newly discovered HER sites/sites added to record.</p>	<p>Support opportunities for archaeological survey and investigation.</p> <p>Promote responsible management of archaeological sites including conservation, access interpretation and education initiatives.</p>	
12. To protect and enhance the quality of water features and resources			
<ul style="list-style-type: none"> ▪ To protect and enhance ground and surface water quality ▪ To protect and enhance coastal waters ▪ Encourage sustainable use of water resources 	<p>Water features.</p> <p>River quality water data.</p> <p>Presence of aquifers.</p> <p>Bathing water quality.</p>	<p>Prevent deterioration of the status of all surface water and groundwater bodies.</p> <p>Protect, enhance and restore all bodies of surface water and groundwater with the aim of achieving identified Water Framework Directive targets.</p> <p>To meet EU bathing water standards.</p> <p>Encourage the use of Sustainable Drainage Systems (SuDS) in development design layout, directing rainfall away from the waste water system.</p>	<p>Flintshire Coastal Park Green Infrastructure Action Plan 2011</p> <p>Dwr Cymru / Welsh Water</p> <p>Dee Valley Water</p> <p>NRW</p>
13. To reduce the risk of flooding			
<ul style="list-style-type: none"> ▪ To encourage the inclusion of flood mitigation measures such as sustainable urban drainage systems ▪ To reduce and manage flooding 	<p>Flood risk.</p> <p>Distribution of areas at risk of coastal and fluvial flooding.</p> <p>Number of registered applications for development in flood risk areas.</p> <p>Percentage of development with SuDS.</p> <p>Households registered for flood warnings as a percentage of total number of households at risk of flooding.</p>	<p>Take a sustainable approach to flood risk management.</p> <p>Reduce the consequences for individuals, communities, businesses and the environment from flooding and coastal erosion.</p> <p>Raise awareness of and engage people in the response to flood and coastal erosion risk.</p> <p>No new development on land at risk of flooding for lifetime of development.</p>	<p>Flintshire Local Flood Risk Management Strategy 2013</p> <p>NRW</p> <p>Welsh Government</p>

SA Objective and Sub-Objectives	Indicators	Targets	Source
	Number of applications permitted contrary to NRW advice on flooding.		
14. To protect and improve air quality and limit greenhouse gas emissions			
<ul style="list-style-type: none"> ▪ To protect and improve local air quality ▪ To reduce greenhouse gas emissions including in both existing and new development ▪ To reduce CO₂ emissions from the transport sector ▪ To encourage all new development to be climate change resilient ▪ To reduce negative effects of power generation, heavy industries and transport on local air quality ▪ To encourage cleaner technology for power regeneration, heavy industry and transport 	<p>Air quality mean concentrations for PM₁₀ and NO₂.</p> <p>Total CO₂ emissions.</p> <p>Percentage of electricity produced/used in Flintshire generated from renewable sources.</p> <p>Proportion of alternative fuelled vehicles.</p>	<p>No AQMAs currently designated or to be designated in the County.</p> <p>Reduce levels of pollution from transport.</p> <p>Achievement of UK Air Quality Strategy objectives for specific pollutants.</p>	UK Air Quality Strategy
15. To increase energy efficiency, require the use of renewable energy and sustainable building design			
<ul style="list-style-type: none"> ▪ To reduce the demand for energy and increase energy efficiency ▪ To encourage sustainable building design ▪ To increase the use of renewable energy ▪ To increase the use of renewable energy ▪ To increase energy efficiency 	<p>Annual average domestic gas and electricity consumption per consumer.</p> <p>Number of renewable energy projects permitted in the County.</p>	<p>Increase the percentage of new buildings achieving high energy conservation ratings above current baseline.</p> <p>Increase number of new developments with sustainable building design.</p> <p>Achieve measurable change that enhances the environment or improves sustainability.</p>	Flintshire Regeneration Strategy 2009-2020
16. To ensure sustainable use of natural resources			

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SA Objective and Sub-Objectives	Indicators	Targets	Source
<ul style="list-style-type: none"> ▪ Reduce the demand for raw materials ▪ Promote the use of recycled and secondary materials in construction ▪ Ensure that contaminated land will be guarded against ▪ Encourage development of brownfield land where appropriate ▪ Maintain and enhance soil quality ▪ Increase the proportion of waste recycling and re-use ▪ Reduce the production of waste ▪ Reduce the proportion of waste landfilled ▪ To protect peatland within the County 	<p>Distribution of best and most versatile agricultural land.</p> <p>Soil types / classification.</p> <p>Percentage land stock contaminated.</p> <p>Total tonnage of municipal waste arisings.</p> <p>Percentage reused, recycled or composted.</p> <p>Total tonnage of municipal waste arisings, percentage landfilled.</p> <p>Mineral Reserves.</p> <p>Geology types.</p> <p>Peatland within the County.</p>	<p>Protect the County's soils from contamination and continue to remediate areas which were impacted in the past.</p> <p>Significantly reduce waste and manage any waste that is produced in a way that makes the most of valuable resources by 2025.</p> <p>Maximise recycling, minimise the amount of residual waste produced and landfill as close to zero waste as possible.</p> <p>By 2050 as a minimum reduce the impact of waste in Wales to within environmental limits, approximately 65% less waste than current waste production.</p>	<p>Towards Zero Waste, One Wales: One Planet -The Overarching Waste Strategy Document for Wales 2010</p>

Arcadis (UK) Limited

401 Faraday Street
Birchwood Park
Warrington
WA3 6GA
United Kingdom
T: +44 (0)1925 800 700

[arcadis.com](https://www.arcadis.com)

