

Integrated Sustainability Appraisal (ISA) for the Monmouthshire Replacement Local Development Plan

ISA of Strategic Options

Monmouthshire County Council

December 2020

Quality information

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Revision History

Revision	Revision date	Details	Name	Position
V1	09/11/20	Draft for internal review	Cheryl Beattie	Senior Environmental Planner
V2	13/11/20	Draft for client review	Alastair Peattie	Associate Director
V3	27/11/20	Final Draft for client review	Alastair Peattie	Associate Director
V4	02/12/20	Final version	Alastair Peattie	Associate Director

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1. Introduction

- 1.1 This document sets out the findings of the ISA for the strategic growth and spatial strategy options.

Method

- 1.2 For each of the options, the assessment examines **likely significant effects** on the baseline, drawing on the sustainability objectives and themes identified through scoping as a methodological framework
- 1.3 Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the options under consideration. The ability to predict effects accurately is also limited by understanding of the baseline (now and in the future under a 'no plan' scenario). In light of this, there is a need to make considerable assumptions regarding how scenarios will be implemented 'on the ground' and what the effect on particular receptors would be. Where there is a need to rely on assumptions in order to reach a conclusion on a 'significant effect' this is made explicit in the appraisal text.
- 1.4 It is important to note that effects are predicted taking into account the criteria presented within Regulations. So, for example, account is taken of the duration, frequency and reversibility of effects. Cumulative effects are also considered (i.e. where the effects of the plan in combination with the effects of other planned or on-going activity that is outside the control of the Monmouthshire County Council).
- 1.5 Based on the evidence available a judgement is made if there is likely to be a significant effect. Where it is not possible to predict likely significant effects on the basis of reasonable assumptions, efforts are made to comment on the relative merits of the alternatives in more general terms and to indicate a rank of preference. The number indicates the rank and does not have any bearing on likely significant effects. This is helpful, as it enables a distinction to be made between the alternatives even where it is not possible to distinguish between them in terms of 'significant effects'. For example, if an option is ranked as 1 then it is judged to perform better against that ISA theme compared to an option that is ranked 2.

2. Appraisal of options for the level of growth

2.1 The options for the level of growth are identified in table below.

Table 2.1: Growth options

Growth Option	Type of Scenario	Population Change 2018-2033	Population Change %	Average Net Migration per annum	Household Change 2018-2033	Household Change %	Dwellings per annum	Dwellings 2018-2033	Jobs per annum	Jobs 2018-2033
1. Balanced Migration (with added policy assumptions) (Net Nil Migration (MR, CR_R), AH)	Demographic	-5,110	-5.4%	108	-240	-0.6%	-17	-255	-120	-1,800
2. WG 2018-based Principal Projection (AH)	Demographic	6,047	6.4%	818	3,749	9.3%	262	3,930	208	3,120
3. WG 2018-based Principal Projection (with added policy assumptions) (WG 2018-based Principal (MR, CR_R), AH)	Demographic	6,147	6.5%	8258	4,551	11.3%	318	4,770	265	3,975
4. Dwelling-led Average (based on dwelling completion rates) (Dwelling-led 5 year average, AH)	Dwelling	10,641	11.3%	1,110	5,628	14.0%	402	6,030	364	5,460
5. Population-led (with added policy assumptions) (PG Long Term (adjusted) (5yr) (MR, CR_R), AH)	Demographic	12,443	13.2%	1,216	7,255	18.1%	507	7,605	481	7,215
6. Employment-led projection (with added policy assumptions) (Radical Structural Change Higher (CR_R), AH))	Employment	17,403	18.5%	1,223	8,653	21.6%	604	9,060	642	9,630

ISA Theme: Economy and employment

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	5	4	3	2	1	1
Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	Yes - positive	Yes - positive
Discussion	<p>Options 1 to 4 all represent jobs growth at a lower rate than past delivery rates, and the demographic projections indicate a declining workforce, as well as a declining customer base, under these four options. As a result, negative effects are considered likely, which increase in significance as the rate of growth decreases. Option 1 performs notably worse when compared to the other options by providing no opportunity to support economic growth and resulting in a loss of jobs in the County over the Plan period. Negative economic impacts are considered likely to be of significance under Option 1.</p> <p>Both Options 5 and 6 seek higher economic growth levels than Options 1 to 4 and as a result, are expected to perform significantly better in relation to this ISA theme. The housing growth proposed alongside economic development also seeks to address potential demographic imbalances with growth in key working age groups. Both Options are considered likely to support the retention of younger age groups and reduce out-commuting through growth with high levels of sustainable local access. Both Options provide opportunities to encourage a more diverse and vibrant economy, supporting and encouraging indigenous businesses and inward investment. The Options provide greater opportunities associated with the Cardiff Capital Region City Deal, the SE Wales Metro and the removal of the Severn Bridge toll. Considering these benefits to local economy and employment, significant long-term positive effects are anticipated under both Options 5 and 6. The difference between these two Options largely relates to the overall level of growth. Whilst higher growth (Option 6) will ultimately be likely to enhance the significance of effects, it can be said that Option 5, by more closely aligning with past delivery rates in the earlier years of the Plan period, presents a more realistic option. As a result, it is difficult to distinguish any significant differences when ranking these two Options.</p> <p>To summarise, there is an assumption that the higher the level of economic and housing growth, the greater the potential significance of positive effects. The lowest growth Option (Option 1), through negative growth, is considered likely to lead to negative effects of significance. At the other end of the scale, both Options 5 and 6 are considered likely to lead to positive effects of significance. However, the assumption in relation to higher levels of growth should also consider limits to growth and reflect the need to balance growth aspirations with realistic achievability. Considering this, it is not wholly appropriate to rank Option 6 any higher than Option 5 at this stage, reflecting a marginally higher uncertainty in relation to achievability.</p>					

ISA Theme: Population and communities

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	5	4	3	2	1	1
Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	Yes - positive	Yes - positive
Discussion	<p>The Monmouthshire Annual Monitoring Report of the Adopted LDP shows that both the annual level of housing completions monitored against the Average Annual Requirement (AAR) and the total cumulative completions monitored against the cumulative requirement (Cumulative AAR) are under delivering , although in more recent AMRs the % of under delivery has steadily declined as strategic sites have come forward . As such, it is considered that Option 1 would perform negatively in terms of contributing towards meeting and sustaining sufficient land supply for the forthcoming Plan period, which could significantly impact upon the future vitality of communities. Not only will this option severely limit opportunities to address changing housing needs in terms of types and tenures, but the lack of growth is also likely to drive up house prices and exacerbate affordability issues. Option 1 may also result in very limited opportunities for the younger population to live and work in the County and difficulties in sustaining services/ facilities across the County, exacerbating rural isolation. Negative effects of significance could therefore be considered likely under Option 1.</p> <p>Options 2 to 6 deliver gradually increasing levels of growth, and it is assumed that as the level of growth increases, so does the ability to deliver a greater range/ mix of new homes to help meet the needs of all residents in the County, including affordable housing. Higher levels of growth also increase the potential for accessibility improvements and other community benefits associated with development, including new and improved service and facility provision, extended green infrastructure, transport and infrastructure upgrades, new open spaces and an improved public realm.</p> <p>This will be particularly important in addressing potential future demographic imbalances, and modelling suggests that natural balances are more likely to be achieved with the growth levels proposed under Options 5 and 6. Under these options growth in younger age brackets, particularly those of working age, balance out the effects of an ageing population, and new development provides the opportunity to address the changing needs of residents in this respect.</p> <p>While high growth proposed through Options 5 and 6 present the potential to deliver a greater level of infrastructure improvements, the Options, given the scale of growth in the context of the County, may also place increased demands on existing infrastructure. Notably, in terms of education, Options 5 and 6 would likely result in a significant growth in the number of school aged children, placing more pressure on the capacity of existing schools. However, the level of housing delivery would provide a substantial opportunity to secure additional provision through planning gain to fund extensions and/ or new schools. Conversely, Option 1 would likely result in a decline in school aged children, placing less pressure on the capacity of existing schools, although it would provide less scope to secure any improvements through planning gain and could lead to potential school closures.</p> <p>Taking the above into account it is considered that as the level of growth increases so does the likelihood for positive effects of significance. Options 5 and 6 would provide a greater range of new homes to meet the predicted increased population and affordable housing needs, and they are therefore more likely to have a residual</p>					

ISA Theme: Population and communities

significant effect. However, it is noted with both Options 5 and 6 that there is a need to manage the impacts of growth on local infrastructure capacity so that it does not place unnecessary burdens on existing infrastructure.

ISA Theme: Health and wellbeing

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	5	4	3	2	1	1
Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	No	No
Discussion	<p>At the time of the 2011 Census 46.4% of Monmouthshire residents felt that they were in 'very good health' (Wales 46.6%), whilst 4.6% felt that they were in 'bad health' (Wales 5.8%). This reflects the 2017/18 data on lifestyle and behavioural choices for adults in Wales, which shows that Monmouthshire has a lower proportion of smokers, e-cigarette users and lower proportion of those who are overweight and/ or obese. However, Monmouthshire has a higher percentage (24%) of those who consume more than 14 units of alcohol on a weekly basis, which was higher by 6% and 5% than in the Aneurin Bevan Health Board area and Wales respectively.¹ The 2019 WIMD health domain further highlights deprivation relating to the lack of good health. In Monmouthshire, there are 20 LSOAs in the 50% most deprived, 5 LSOAs in the 30% most deprived, and 2 LSOAs in the 20% most deprived. Whilst Monmouthshire's residents have good access to public open space, a recreation and open space survey established a deficiency of more formalised provision in many of the County's communities of outdoor sport, equipped children's play and allotments.</p> <p>Given the high-level nature of the Options and uncertainties at this stage, it is difficult to highlight any significant differences between the Options. It could be suggested that as the level of growth increases so does the potential for a greater loss of green/ public open space; however, this is dependent on the location of development. Furthermore, the higher levels of growth under Options 5 and 6 could increase pressure on existing health services; and it is recognised that Monmouthshire has one main hospital, Nevill Hall Hospital in Abergavenny. Despite this, there are certain health benefits associated with growth and development. This includes the potential for new or improved community services and facilities supporting growth in the County, including healthcare, open spaces, green infrastructure and retail and leisure. Further, development which delivers transport and infrastructure upgrades can improve accessibility and safety for residents. The importance of improved connectivity and accessibility to local facilities and open space, in light of the on-going pandemic, highlights the potential for higher growth options (Options 5 and 6) to support more positive health outcomes. However, there is also a need to manage the impacts of growth on local infrastructure capacity to ensure that no unnecessary burdens are placed on existing infrastructure. Considering this, positive effects under Options 5 and 6 are less likely to be of significance.</p> <p>Option 1 is notable for a declining population, work force and economic base. The imbalanced demographic under this option, which prevails to lesser extents through Options 2, 3 and 4 respectively, are considered for the potential to exacerbate negative health implications. This includes a lack of ability to address changing housing needs (in terms of type, access and affordability) for a significant and growing proportion of elderly residents, as well as declining town and village centres exacerbating rural isolation in areas. The current pandemic highlights the importance of ensuring communities are balanced and socially sustainable to support more positive health outcomes, and the negative effects arising may be of significance under Option 1 where demographic imbalances are most acute. The significance of the negative effects arising under Options 2 to 4 become less certain as each proposes increasing measures to address demographic imbalances.</p>					

¹ National Survey for Wales 2017/18

ISA Theme: Equalities, diversity and social inclusion

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	5	4	3	2	1	1
Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	No	No
Discussion	<p>At this stage the location of growth is not known, as a result it is difficult to determine how specific communities and protected characteristics are likely to be affected by the Options. As indicated through the appraisal under other themes, increased levels of growth provide an opportunity to deliver a greater mix of housing and employment to meet the needs of all members of the community. There is also the potential to deliver greater improvements to community infrastructure and the public realm, but this is uncertain at this stage. In this context, a higher level of growth could help to address areas of deprivation depending on where it is located. Furthermore, a higher level of growth could also be more likely to meet the needs of people across a wider area of the County; however, again this would be dependent on the preferred spatial strategy.</p> <p>Whilst lower growth could be argued to help protect the identity of existing communities, Options 1 to 4 have the potential to impact negatively on the age profile of the County leading to an unbalanced demographic, with only the over 60 age group showing any substantial growth over the Plan period. Under these options, younger age groups, particularly key working age groups are largely projected to decline overall. In particular, the forecasted decline in population and economic bases, including local centres, under Option 1 is considered likely to exacerbate the effects of rural isolation. This is particularly relevant to certain groups with protected characteristics, such as the young, elderly and disabled, who tend to be disproportionately affected by accessibility issues and the negative effects of transport infrastructure, the significance of which has been particularly highlighted through the on-going pandemic. As a result, negative effects under Option 1 have the potential to be of significance. The significance of negative effects under Options 2, 3 and 4 remain uncertain at this stage, reflecting the need to target the limited growth proposed under these options at specific demographic needs and issues in order to avoid significant effects arising.</p> <p>The higher growth Options (Options 5 and 6) would likely result in a more balanced demographic with an increase in the number of older and elderly people living in the County balanced against an increase in the younger age groups. This would impact upon the type of housing required and service providers across public and private sectors. The Options present opportunities to improve accessibility and reduce inequalities through an appropriate spatial strategy and lead to positive outcomes in relation to this ISA theme.</p> <p>Taking the above into account, Options 5 and 6 are considered to perform best overall, through the delivery of new homes, jobs and community infrastructure that strategically improves accessibility and connectivity within the County. The options are considered to have the greatest potential to support diverse and inclusive communities.</p>					

ISA Theme: Transport and movement

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	2	2	2	1	1	1
Significant effect?	No	No	No	No	No	No
Discussion	<p>At this stage, there is no evidence to suggest that the levels of growth proposed under any of the options would have a significant negative effect on the highway network. With no growth proposed under Option 1, and limited growth under Options 2 and 3, these Options are considered likely to lead to marginal effects in terms of congestion on the existing highway network. Whilst Options 4, 5 and 6 propose higher levels of growth that has greater potential for negative effects in terms of congestion, negative effects are not considered likely to be significant. Further, in light of the current pandemic, it is likely that higher levels of homeworking will also prevail as a longer-term trend. The higher growth Options (Options 5 and 6) further provide greater critical mass to enable more significant infrastructure improvements. This is particularly important given the wider ambitions to transition to a lower-emission infrastructure network, where development will be a key delivery vehicle for the technological and infrastructure advances which underpin the transition, such as expansion of the EV network, smart technologies, last mile deliveries and cycle route connectivity.</p> <p>The nature and significance of the effects will ultimately be dependent on where the development is located as well as the infrastructure improvements that could be provided. If the additional residential development is located close to the main settlements, taking advantage of the services/ facilities and employment opportunities on offer, and main bus routes and train stations, then there is the potential to reduce levels of out-commuting, encourage the use of sustainable transport and therefore encourage a modal shift. Similarly, if growth were to be focussed to the south of the County/ Severnside along the M4 corridor, this would utilise good links to the M4 and other sustainable travel links including rail at Caldicot and Severn Tunnel Junction Train Stations. Growth to the south would also capitalise upon transport improvements such as the removal of the Severn Bridge toll and the ambitions and opportunities associated with the Cardiff Capital Region City Deal and the SE Wales Metro. If additional growth is located away from the main settlements and Severnside, in the rural areas, then this is likely to exacerbate the current trend of private vehicle use and increase traffic on the highways network in the absence of significant interventions; given sustainable transport infrastructure is limited in these locations.</p> <p>Considering the above, whilst no significant effects are predicted, much uncertainty remains about the overall performance of the options in relation to this ISA theme until the spatial strategy is more clearly defined. However, it is duly recognised that Options 4, 5 and 6 have greater potential for positive transport outcomes than the limited opportunities provided through Options 1, 2 and 3 and the ranking of Options reflects this assumption.</p>					

ISA Theme: Natural resources (air, land, minerals and water)

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	1	2	3	4	5	6
Significant effect?	No	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>As the level of growth increases so does the likelihood for negative impacts on natural resources through the potential loss of greenfield/ agricultural land and mineral resources; reduced air quality as a result of increased traffic; and increased demand for water resources.</p> <p>The largest proportion of agricultural land (42%) in Monmouthshire falls under Grade 2, 'very good' agricultural land. This land is mainly identified near Caerwent, Llanvair Discoed, Caldicot and Mathern in the South of the County. A further 7% of the land is classified as Grade 1 (excellent). The proportion of 'good to moderate' (Grade 3) agricultural land within the County also represents 42%. The percentage of 'poor' (Grade 4) quality agricultural land in Monmouthshire is 9%. Alongside soil resources, South Wales is well-endowed with aggregate resources and it has inherited over time a substantial volume of permitted reserves, although the reserves are often variable in terms of quality and location. There is one limestone quarry within Monmouthshire, the lfton Quarry which whilst not currently worked could be worked in the future. Additional limestone resources exist in the southern part of the County, but in general, the area is sensitive in terms of environmental capacity. Furthermore, some parts of the limestone resource lie within the Wye Valley AONB; MTAN1 (paragraph 49) indicates that no allocations should be made in respect of such areas. There are no significant sources of secondary aggregates in the area. Under the adopted Monmouthshire Local Development Plan Policy M2 (Minerals Safeguarding Areas), safeguarding zones are identified for sand and gravel and limestone resources within the County. A substantial part of the south of the County is affected by the limestone safeguarding area. The sand and gravel deposits are predominantly located in the Usk Valley.</p> <p>Option 1 does not propose further growth and as such is likely to avoid significant effects in relation to this ISA theme. Further, it is considered that mineral landbank obligations could be met under all Options, though it is recognised that increasing levels of growth will put increasing pressure on safeguarded areas, particularly those that encroach upon settlements. The overall loss of agricultural land and mineral resources is uncertain at this stage as it will be dependent on the precise location of development and if the land is greenfield or brownfield. The quality of agricultural land will also play a role in determining the potential significance of effects. It is however recognised that brownfield land is sparse throughout the County, and most development is anticipated to take place on greenfield land. In this respect, the Options that propose a lower level of growth are considered to perform better against this theme as they will require less land take, and this is reflected in the ranking of Options.</p> <p>Whilst air pollution is not a significant problem in Monmouthshire, air quality across the County varies with two Air Quality Management Areas (AQMAs) declared in Usk and Chepstow. It is therefore considered that significance of effects in this respect will be dependent on the location of growth, and the implementation of appropriate mitigation measures. As discussed under the transportation ISA theme, with an increase in population it is considered that higher growth options have greater potential for negative effects in relation to congestion on the existing highways network. However, no evidence suggests this will lead to effects of significance. Ultimately the spatial strategy should seek to reduce congestion pressures at AQMAs, and new development provides opportunities to address infrastructure upgrade requirements that</p>					

ISA Theme: Natural resources (air, land, minerals and water)

support more efficient movement in the highways network. New development also provides opportunities to increase local accessibility, particularly access to employment opportunities, which can in turn support reduced levels of out-commuting and congestion and support a modal shift. A higher level of homeworking bought on by the current pandemic is also considered likely to continue to some degree as a longer-term trend supporting reduced congestion and improved air quality. Considering this, whilst no significant effects are considered likely at this stage, the overall nature and significance of the effects in relation to air quality under Options 2 to 6 remain uncertain until the precise location of development is known.

Water is supplied to Monmouthshire by Dwr Cymru/ Welsh Water (DCWW). They supply water via a large scale, multi-source, integrated network that is typical of many other water company areas. Monmouthshire falls within two Water Resource Zones (WRZs); Monmouth WRZ and the South East Wales Conjunctive Use System (SEWCUS) WRZ. The Monmouth WRZ supplies the market town of Monmouth and the surrounding villages. This WRZ is heavily dependent on the Mayhill abstraction from the River Wye at Monmouth. There is also a spring abstraction at Ffynnon Gaer which supplies a small localised area south of Monmouth. The SEWCUS supplies the majority of the County, and a significant proportion of the South East Wales Region. In total, there are over 40 resources that are used to supply the SEWCUS WRZ, which include a mixture of river abstractions from the larger rivers in the east of the WRZ and relatively small upland reservoir sources with small catchment areas. For both WRZs the total demand for water is forecast to remain relatively stable until 2030, with a decline in demand anticipated over the 2030-2050 planning period, and then to just 10% of current demands by 2050.²

Water companies are legally required to supply water to private consumers and businesses within their area. As set out in the Water Industry Act 1991, they must prepare and maintain a Water Resources Management Plan (WRMP) that sets out how the company intends to maintain the balance between water supply and demand. Water companies update their WRMPs every 5 years to take account of predicted growth and ensure that there are schemes in place to meet future demands. As the scale of growth proposed under the options increases so does the pressure on water resources. However, given the legal requirements in place for WRMPs, it is considered that there are no significant differences between the options in terms of effects on water resources. It is expected that development coming forward under any of the options can deliver mitigation (for example rainwater harvesting measures) to support reduced water use per person per day.

There are 45 water bodies within Monmouthshire, 38 surface waters, such as rivers, lakes, canals and reens, and 7 groundwater bodies. 37 of these water bodies have been designated as protected areas, these are areas requiring special protection under other EC directives and waters used for the abstraction of drinking water. Not all water bodies are required to be assessed for chemical status, of the 15 in Monmouthshire which are required to be assessed 2 are failing to achieve good status, one groundwater and one river. The river that is failing is the section of the River Usk between the confluence with the River Gavenny and the confluence with the Olway Brook. The main reasons for the failures identified by these assessments have been identified as diffuse pollution from agriculture, low flows/ abstraction and physical modifications to watercourses, predominantly barriers to fish migration. In addition, there are some known urban diffuse sources from combined sewer overflows/ misconnections, affecting the Nedern Brook and the Gavenny River.

Options proposing a higher level of growth would place increased pressure on sewerage infrastructure; with the potential for long term negative effects. The increased growth could have impacts on water quality through increased impermeable surfaces and transfer of pollutants, but it is considered that there is suitable mitigation available at a development management level to ensure that residual effects are not significant. Taking the above into account, it is considered that there are no significant differences between the options at this stage in terms of the water environment.

² Welsh Water (2019) Final Water Resources Management Plan 2019 <https://www.dwrcymru.com/en/My-Water/Water-Resources/Final-Water-Resources-Management-Plan-2019.aspx>

ISA Theme: Biodiversity and geodiversity

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	1	2	3	4	5	6
Significant effect?	No	No	No	Uncertain	Uncertain	Uncertain
Discussion	<p>In terms of biodiversity and geodiversity the impacts will ultimately be dependent on the precise location of development. There are five European sites (Special Areas of Conservation (SAC), Special Protections Areas (SPA) or Ramsar sites) within the County; Severn Estuary SAC/ SPA/ Ramsar Site, River Wye SAC, River Usk SAC, Wye Valley Woodlands SAC, and the Wye Valley and Forest of Dean Bat sites SAC. Additionally, there are a further four European Sites within the Brecon Beacon National Park which must also be considered. These are Coed y Cerrig SAC, Cwm Clydach Woodlands SAC, Sugar Loaf Woodlands SAC, and Usk Bat Sites SAC. Further to this, Llangorse Lake/ Llyn Syfaddan SAC, in Powys, Avon Gorge Woodlands SAC and Aberbargoed Grassland SAC Caerphilly fall within 15km of Monmouthshire and could possibly be affected by growth proposed through the RLDP.</p> <p>In terms of nationally designated sites, there are 50 SSSIs that fall wholly within the County. Most are woodland or grassland sites, with others designated for their wetland or geological interest, and a few designated for bat interest. It is noted that of these, 16 fall within the SACs listed above. Spatially, a significant proportion of the SSSIs are located to the north west of the County, within the Brecon Beacons National Park and surrounding Abergavenny. Fiddler’s Elbow SSSI and Lady Park Wood SSSI are also the County’s two National Nature Reserves (NNRs), located within the County, east of Monmouth. In terms of locally important biodiversity, there is one Local Nature Reserve (LNR) designated within the County; Cleddon Bog. There are also approximately 650 Sites of Importance for Nature Conservation (SINCs) (also known as Local Wildlife Sites (LWSs) designated within the County.</p> <p>Option 1 does not propose further growth and is therefore unlikely to affect biodiversity directly. It is assumed that none of the remaining Options would result in the loss of any international, national or locally designated sites or lead to negative effects of significance in this respect. However, the increasing level of growth under Options 2 to 6 is likely to require increasingly more land take. This is considered likely to result in wider habitat loss and fragmentation as well as increased pressure; notably disturbance (through recreation, noise and light), atmospheric pollution, and through impacts on water quality and resources. Option 6, by proposing radical growth has greater potential for negative effects of significance in this respect and the ranking of Options reflects this assumption.</p> <p>Despite this, it is recognised that higher levels of growth could also offer greater opportunities for delivering biodiversity net gain, securing and/ or enhancing green infrastructure, public open space and recreation provision through planning gain; however, this is uncertain at this stage as the location of development is not known. The nature and significance of residual effects will therefore ultimately be dependent on the exact location, design/ layout of development, the implementation of mitigation measures, and the sensitivity of receptors.</p>					

ISA Theme: Biodiversity and geodiversity

Overall, no or limited growth under Options 1, 2 and 3 are not considered likely to lead to effects of significance. As the level of growth increases through Options 4, 5 and 6 so too does the potential significance of negative effects. However, the residual effects remain uncertain at this stage reflecting the ability to mitigate effects at the site/ project level.

ISA Theme: Historic environment

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	1	2	3	4	5	6
Significant effect?	No	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>In terms of the historic environment the impacts will ultimately be dependent on the precise location and design of development. Monmouthshire has 31 Conservation Areas that are dispersed throughout the County. There are also 45 Historic Parks and Gardens varying considerably in size and character, three Landscapes of Outstanding Historic Interest, including Blaenavon Industrial World Heritage Site, and 164 Scheduled Monuments within Monmouthshire. There are also 2,206 listed buildings spread across the County.</p> <p>It is assumed that none of the Options would result in the loss of any designated heritage assets. Option 1 will not lead to any further growth and is not considered likely to directly affect the historic environment in this respect. The increasing level of growth proposed under Options 2 to 6 will ultimately increase the amount of land take and therefore result in wider impacts on the historic environment across the County, with Options 5 and 6 seeking higher levels of growth that have the potential for effects of significance. If this additional growth is located close to or within the setting of designated heritage assets, then there could be the potential for negative effects. It is also recognised that increasing levels of development have the potential to impact on rural townscape and village character. However, this is uncertain at this stage as the location of this additional development is not known, but the ranking of options reflects these assumptions. The higher levels of growth could also offer more opportunities to improve access to designated heritage assets or help to redevelop brownfield areas that are currently detracting from the historic environment, but again this is uncertain at this stage. The nature and significance of residual effects will therefore ultimately be dependent on the exact location, design/ layout of development and the implementation of mitigation measures.</p> <p>At this stage it is not possible to identify any significant differences between the Options or conclude that they are likely to have significant effects on the historic environment. None of the Options are likely to have a significant effect on the welsh language.</p>					

ISA Theme: Landscape

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	1	2	3	4	5	6
Significant effect?	No	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>As for a number of other ISA themes, the nature and significance of effects on landscape/ townscape impacts will ultimately be dependent on the precise location and design of development. Monmouthshire has a rich and diverse landscape, incorporating part of the Wye Valley AONB to the east of Monmouthshire and part of the Brecon Beacons National Park to the north west. The portion of the Brecon Beacons National Park (BBNP) located in Monmouthshire covers some 14,880 hectares, which accounts for approximately 17% of the County. The part of the Wye Valley AONB located within Monmouthshire covers approximately 11,710 hectares and accounts for approximately 16% of Monmouthshire. There are also three landscapes of outstanding historic interest within Monmouthshire; including the Blaenavon Industrial World Heritage Site, the Gwent Levels and the Lower Wye Valley. A small portion of the Blaenavon World Heritage Site (approximately 20 hectares) lies within the Monmouthshire local planning area.</p> <p>No further growth is proposed under Option 1 and as such, no direct effects in relation to landscape are anticipated under this Option. The increasing levels of additional growth proposed under Options 2 to 6 are likely to require increasingly more land take, placing higher pressure on greenfield land resources and resulting in wider impacts on the landscape across the County. Given the limited brownfield land available in the County, it is considered that most additional growth will be delivered on greenfield land on the edge of existing settlements, placing increased pressure on the County's landscape interests and rural character with the potential for long term negative effects.</p> <p>Whilst it is likely that mitigation is available to reduce the significance of any effects, the residual effects remain uncertain at this stage until development locations are more clearly defined. Given the higher levels of growth under Options 5 and 6, there is greater potential negative effects of significance overall, which is reflected in the ranking of the Options.</p> <p>Delivery of any additional growth in the more rural areas is also more likely to result in a residual negative effect of greater significance, but again, this is dependent on the sensitivity of the landscape and scale and design/ layout of development.</p> <p>Alongside the potential for negative effects, it is recognised that there is there is also the opportunity for growth to deliver landscape enhancements; maximising opportunities to secure and/or improve green infrastructure, public open space and recreation provision through planning gain. The nature and significance of effects will therefore ultimately be dependent on the exact location, design/ layout of development, and the implementation of mitigation measures.</p> <p>Considering the above, the overall effects remain uncertain for most Options. Despite this, the increased pressures on greenfield land and rural landscapes under the higher growth Options are reflected in the ranking of the Options.</p>					

ISA Theme: Climate change (including flood risk)

Options	Option 1 - Balanced Migration	Option 2 - WG 2018-based Principal Projection	Option 3 - WG 2018-based Principal Projection (with added policy assumptions)	Option 4 - Dwelling-led Average (based on dwelling completion rates)	Option 5 - Population-led (with added policy assumptions)	Option 6 - Employment-led projection (with added policy assumptions)
Rank	6	5	4	3	2	1
Significant effect?	No	No	No	No	No	No
Discussion	<p>In terms of climate change mitigation, a higher level of growth will ultimately lead to increased levels of greenhouse gas (GHG) emissions. At this stage, we are not aware of any specific opportunities that would help to significantly reduce per capita GHG emissions or deliver new low carbon or renewable energy through a higher level of growth. It is therefore assumed that development proposed under any of the options has the potential to incorporate renewable or low carbon energy.</p> <p>However, higher growth options are noted for their potential to support infrastructure upgrades that reduce congestion and improve accessibility (particularly in terms of sustainable transport modes), and support a transition to lower-emission, and carbon neutral economies and networks. Further the higher growth options are also considered for their potential to contribute to improved ecological connectivity, green infrastructure networks, open spaces and urban greening measures which support improved climate resilience. As a result, the higher growth options are considered for potential positive outcomes, and this is reflected in the ranking of options.</p> <p>In terms of climate change adaptation, it is assumed that the additional growth proposed under Options 2 to 6 would be directed to areas of lower flood risk as per the sequential test. It is also assumed that there is suitable mitigation available to ensure that the additional development does not increase flood risk, for example through the delivery of sustainable drainage systems.</p>					

Summary findings

Table 2.2: ISA summary findings for growth options

ISA theme	Rank/ significant effect	Categorisation and rank					
		Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Economy and employment	Rank	5	4	3	2	1	1
	Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	Yes - positive	Yes - positive
Population and communities	Rank	5	4	3	2	1	1
	Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	Yes - positive	Yes - positive
Health and wellbeing	Rank	5	4	3	2	1	1
	Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	No	No
Equalities, diversion and social inclusion	Rank	5	4	3	2	1	1
	Significant effect?	Yes - negative	Uncertain	Uncertain	Uncertain	No	No
Transport and movement	Rank	2	2	2	1	1	1
	Significant effect?	No	No	No	No	No	No
Natural resources (air, land, minerals and water)	Rank	1	2	3	4	5	6
	Significant effect?	No	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
Biodiversity and geodiversity	Rank	1	2	3	4	5	6
	Significant effect?	No	No	No	Uncertain	Uncertain	Uncertain
Historic environment	Rank	1	2	3	4	5	6
	Significant effect?	No	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
Landscape	Rank	1	2	3	4	5	6
	Significant effect?	No	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
Climate change (including flood risk)	Rank	6	5	4	3	2	1
	Significant effect?	No	No	No	No	No	No

For ISA themes relating to natural resources, biodiversity, the landscape and historic environment; the nature and significance of effects will be dependent on where growth is located and how development is designed/ implemented. As the level of growth increases so does the likelihood that impacts will occur, and negative effects will arise. Residual effects in this respect are uncertain and will be better informed by consideration of the location of growth, the sensitivity of receptors, and the potential mitigation measures available. Lower growth options are ultimately ranked more favourably in respect of the potential environmental impacts, though it is also recognised that higher levels of development have further potential to deliver environmental enhancements/ improvements that could lead to positive effects.

At this stage there is no evidence to conclude that the higher levels of growth would result in a significant negative effect on biodiversity/ geodiversity, the landscape and historic environment. Given the limited brownfield resource in the County, development is likely to be primarily delivered on greenfield land, with residual negative effects likely. The significance of this effect will increase as the level of growth increases. There is currently uncertainty in terms of impact on important mineral resources and agricultural land until the location of growth is more defined.

Similarly, for the transport ISA theme, options proposing a higher level of growth are more likely to result in impacts on the local highway network through increased traffic and congestion; however, no evidence suggests impacts are likely to be of significance. Recent increases in homeworking as a result of the current pandemic are considered likely to prevail as a longer-term trend which will continue to support reduced congestion. Further, the higher growth levels are considered for their potential to deliver accessibility and infrastructure improvements and result in more self-contained communities, reduced levels of out commuting and modal shift, the importance of which have all been highlighted during the pandemic. As a result, higher growth options are ranked more favourably overall.

Option 1 is noted for potential negative effects of significance in relation to the ISA themes of economy and employment, population and communities, health and wellbeing and equalities, diversity and social inclusion. This is predominantly due to negative growth severely restricting opportunities to address a likely resultant demographic imbalance and economic decline. Under this option, a decline in younger age groups, particularly working age groups, is likely to result in job losses, and a decline in economic and local centres exacerbating rural isolation. This is particularly relevant to certain groups with protected characteristics, such as the young, elderly and disabled, who tend to be disproportionately affected by accessibility issues and the negative effects of transport infrastructure. Further, a lack of future development may not only severely limit opportunities to address changing housing needs in terms of types and tenures but is also likely to drive up house prices and exacerbate affordability issues.

The higher growth options (Options 5 and 6) are identified as performing better against ISA themes relating to the economy and employment, population and communities, health/ wellbeing and equalities as the additional growth provides an opportunity to deliver a greater range of new housing, employment opportunities and community infrastructure to meet the needs of the County.

3. Appraisal of spatial strategy options

3.1 The spatial strategy options are identified in table below.

Table 3.1: Spatial strategy options

Option	Description
1 Continuation of the existing LDP Strategy	Growth would be distributed development around the County with a particular focus on Main Towns, with some development in Severnside and some development in the most sustainable rural areas to enable provision of affordable housing throughout the County. New residential development would be accompanied by new employment opportunities, where possible.
2 Distribute Growth Proportionately across the County's most Sustainable Settlements	Growth, including jobs and affordable housing, would be distributed across the County's most sustainable settlements, with the level of growth proportionate to that settlement's size and amenities, affordable housing need as identified in the LHMA, the capacity for growth and/or the need for development to sustain the community.
3 Focus Growth on the M4 corridor	Growth would be predominately located in the South of the County in the Severnside area close to the M4/M48, to capitalise on its strategic links to the Cardiff Capital Region and South West England, existing economic opportunities and regional infrastructure connections, including via the South Wales Main rail line at Severn Tunnel Junction. Affordable Housing would be directed to those sustainable areas in the south of the County identified in the LHMA as having the greatest housing.
4 Focus Growth in the North of the County	Growth would be predominantly located in the most sustainable Settlements within the North of the County to capitalise on its strategic links to the Heads of the Valleys and wider Cardiff Capital Region via the A465, and towards Herefordshire via the A449 and A40, along with rail links to Newport, Cardiff and the North via the Welsh Marches line. Affordable Housing would be directed to those sustainable areas in the north of the County identified in the LHMA as having the greatest housing.

ISA Theme: Economy and employment

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	1	1	2	2
Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Discussion	<p>Monmouthshire's increasing ageing population and shrinking working age population is currently limiting employment growth throughout the County. This is exacerbated by limited job opportunities and limited public transport, particularly in rural areas, making it harder to access jobs, services and facilities.</p> <p>Abergavenny, Caldicot, Chepstow, Magor Undy, Monmouth, Raglan and Usk, all provide a range of employment opportunities, which is evidenced by their higher levels of self-containment.³ The level of self-containment is a useful indicator of the number of people who live and work within the same settlement; providing significant potential for sustainable travel. Opportunities to maximise the self-containment of these settlements are more likely to be taken through Options 1 and 2 by focussing housing and employment growth towards these settlements. This will strengthen the local economy, ensuring an appropriate economic base to enable younger people to live and work locally within the County. It is considered that positive effects in this respect are also anticipated through all other Options; however, lower growth at these settlements may reduce positive effects in terms of promoting economic growth in the County's key centres.</p> <p>Option 3 will lead to positive effects through responding to the recent removal of the Severn Bridge Tolls and the ambitions and opportunities associated with the Cardiff Capital Region City Deal and the South East Wales Metro. It seeks to capitalise upon the continuing economic growth of the Bristol/ South West region and the opportunities for Monmouthshire as a border County and its location between the 'Great Western Cities'. Directing growth close to the M4/ M48 will therefore provide residents with good access to economic opportunities throughout the region, utilising the infrastructure connections to the South of the County. In this context, it is recognised that the main concentrations of employment outside of the Primary Settlements are in the Severnside area, with the Primary Settlements and Severnside accounting between them for nearly 72% of all employment.⁴ Directing growth to the South of the County therefore has the potential to deliver long term positive effects against this ISA theme.</p> <p>Option 4 will, conversely, lead to positive effects through focussing growth in the most sustainable Settlements in the North of the County, capitalising upon its strategic links to the Heads of the Valleys. Like Option 3, Option 4 also seeks to take advantage of the wider Cardiff Capital Region via the A465, and towards Herefordshire via the A449 and A40, along with rail links to Newport, Cardiff and the North via the Welsh Marches line. Targeted growth in the North of the County therefore has the potential to lead to increased levels of self-containment, supporting sustainable communities at the most sustainable Settlements of North Monmouthshire. However, it is recognised that within Options 3 and 4, concentrating growth in either the South or North of the County would result in limited employment opportunities outside these areas, which would exacerbate existing high levels of out-commuting in other settlements (i.e. Abergavenny/ Llanfoist, Chepstow and Monmouth under Option 3, and Chepstow, Usk and Severnside under Option 4). Additionally, this may limit economic growth in the wider County and exacerbate existing demographic issues.</p>			

³ Monmouthshire County Council (2019) Sustainable Settlement Appraisal (Draft)

⁴ Business Register and Employment Survey 2017

ISA Theme: Economy and employment

Another key issue for the County is the changing role of high streets. Changing shopping habits, the use of out of town retail centres and increased levels of internet shopping has resulted in increased vacancy rates in some of the County's main retail centres such as Abergavenny; impacting on local economic growth. The ongoing pandemic has also highlighted the importance of high streets and the need to protect the role and function of the high street in the local community. Technical Advice Note 4 (TAN 4) reiterates the important role that retail and commercial centres play in creating sustainable locations, seeking to ensure they have a positive future. It states that "...good access to and within, retail and commercial centres is key, both to the vibrancy of those places and to ensure that everyone in society has access to the wide variety of goods and services." Options 1 and 2 will lead to positive effects in this respect, through supporting the existing centres; protecting their vitality and viability through increasing footfall, and supporting existing/ attracting additional facilities, in the main county towns. Conversely, Options 3 and 4 which direct growth towards certain centres and not others may further the trend of increasing vacancy rates on those centres where growth is not focussed, leading to negative effects against this ISA theme. Specifically, long term positive effects are anticipated where options support the regeneration of the County's main centres. Investing in existing centres through Options 1 and 2 will likely retain retail expenditure and attract inward investment, adapting positively to the changing role of the high streets throughout the County.⁵

Tourism plays a significant role in the Monmouthshire economy, particularly in assisting in rural diversification. The County's historic town centres also attract tourists. All of the options could have a positive effect on tourism with Options 1 and 2 performing more strongly as growth is also directed to rural areas across the County.

Overall, Options 1, and 2 are likely to lead to positive effects of greatest significance; facilitating sustainable growth in accordance with the settlement hierarchy, addressing localised economic issues and supporting a well-connected diverse economy. There are some small differences between Options 1 and 2 in terms of how growth is distributed during the Plan period, but these differences are not significant enough to warrant one option being ranked higher or lower than the other. Comparatively Options 3 and 4 perform less well given they focus growth in one area of the County to the potential detriment of the other.

⁵ Monmouthshire Retail Background Paper, 2018

ISA Theme: Population and communities

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 – Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	1	1	3	2
Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Discussion	<p>As a result of in-migration the population of Monmouthshire has shown a steady increase over a ten year period to 2011; the County has a negative natural change. All Options perform positively in terms of providing housing to meet the identified needs of the County, with Options 1 and 2 best performing in this respect. Options 1 and 2 would provide affordable housing throughout the settlement hierarchy, ensuring a range and choice of homes are delivered, particularly where there is a need for affordable housing, to assist in regaining a balanced population. In terms of Options 3 and 4, housing will be delivered to either the South of the County (Option 3) or the North of the County (Option 4) only, resulting in needs not being met across all housing market areas. Additionally, there is a need to consider the potential impact on house prices arising in this context, given the delivery of affordable homes will be focussed in either the South or the North, and not meet needs more widely.</p> <p>In terms of addressing the wider needs of communities, Options 1 and 2 will deliver long term positive effects through focussing the majority of growth at the Primary Settlements and Severnside. It is considered that facilitating the provision of increased accessible services in these urban areas, supported by connective infrastructure, will meet local needs, recognising the role of these settlements as service hubs for their rural hinterlands. This will contribute positively towards encouraging younger people to reside in the County, and addressing issues surrounding accessibility for elderly residents. A level of housing will also be provided under Options 1 and 2 in Secondary Settlements, the Severnside area and some of the Rural Settlements. The Secondary Settlements offer services of a more local nature aimed at meeting the daily needs of their inhabitants and those living in the surrounding areas, while outside of these settlements are a large number of smaller settlements with a limited offer in terms of services and facilities. It is therefore recognised that delivering higher growth to these smaller rural settlements through Options 1 and 2 may place additional pressure on existing social infrastructure at these locations; notably health care facilities unless supported by new or enhanced infrastructure capacity.</p> <p>Option 3 will lead to positive effects through capitalising upon the recent removal of the Severn Bridge Tolls and the ambitions and opportunities associated with the Cardiff Capital Region City Deal and the South East Wales Metro. Utilising these strategic economic links will contribute positively towards delivering sustainable communities, achieving infrastructure improvements/ provision in the South of the County. Similarly, Option 4 will lead to positive effects through capitalising upon its strategic links to the Heads of the Valleys and wider Cardiff Capital Region via the A465, and towards Herefordshire via the A449 and A40, along with rail links to Newport, Cardiff and the North via the Welsh Marches line. Utilising these strategic economic links will contribute positively towards delivering sustainable communities, achieving infrastructure improvements/ provision in the North of the County.</p> <p>However, concentrating growth in the South (Option 3) or the North (Option 4) would also result in limited investment in infrastructure/ facilities outside the targeted locations, which would exacerbate existing reliance on the car and high levels of out-commuting in other areas (i.e. Abergavenny/ Llanfoist, Chepstow and Monmouth under Option 3 and Chepstow, Caldicot, Usk and Magor under Option 4). Additionally, through Options 3 and 4, existing centres outside of the key development areas (namely the Severnside area (Option 3) and the most sustainable Settlements to the North (Option 4)) would not be supported, resulting in limited growth at these</p>			

ISA Theme: Population and communities

settlements. Rural areas in particular will be disadvantaged as they would not benefit from additional housing to help support existing facilities or attract additional facilities.

Consideration must also be given to the recent publication of the Future Wales The National Plan 2040 (Working Draft National Development Framework (NDF)) which indicates a desire to designate a Green Belt “*around Newport and eastern parts of the region*”. This is anticipated to include a large part of South Monmouthshire which, if implemented would significantly constrain future growth in this part of the County. Option 4 would accord with the direction of the Future Wales document, and therefore performs positively in terms of facilitating growth consistent with emerging National policy. Conversely the delivery of Option 3 would lead to negative effects; conflicting substantially with the Future Wales document through directing growth to the south where the Green Belt has been proposed. As all other Options seek to disperse growth throughout the County, and a defined location has not yet been established for the Green Belt, it is difficult to make any definitive conclusions on the nature and significance of effects at this stage.

Overall, Options 1 and 2 are considered to perform best as they provide sufficient housing and employment opportunities to meet identified housing and economic growth needs throughout the County. Further the options distribute housing in line with the settlement hierarchy, helping to meet the needs of all communities. There are some small differences between Options 1 and 2 in terms of how growth is distributed during the Plan period, but these differences are not significant enough to warrant one option being ranked higher or lower than the other. Comparatively Option 4 and in particular 3 perform less well due to the focus of growth in either the North or South of the County.

ISA Theme: Health and wellbeing

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	1	1	4	3
Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Discussion	<p>In terms of improving the health and wellbeing of residents, Option 1 and 2 are anticipated to lead to long term positive effects through supporting and sustaining a hierarchy of vibrant town and village centres across the County. It is considered that the focus of growth in the Primary Settlements of Abergavenny, Chepstow and Monmouth, and Severnside settlements, would ensure sustainable access to a range of community services and facilities, including health, leisure and recreation; notably three of the four leisure centres in Monmouthshire are located in these Primary Settlements. Positive effects are therefore anticipated in terms of improving physical and mental health and wellbeing by encouraging healthier lifestyles, quality living environments and community cohesion. Positive effects in this respect are also anticipated through Option 4; however, the level of growth directed towards these settlements is likely to be less.</p> <p>Whilst growth may place additional pressures on healthcare facilities, it is recognised that recent healthcare developments, such as the new critical care hospital in Cwmbran provides opportunities to support growth with enhanced sustainable healthcare care access in and around this location. Such opportunities are more likely to be capitalised upon under Options 1 and 2.</p> <p>The delivery of Option 3 and Option 4 present the opportunity to capitalise upon regional infrastructure connections, and are considered to be well located in terms of access to health services. In this context, under Option 3 residents would be a reasonable distance from the Royal Gwent Hospital in Newport and the new critical care hospital in Cwmbran. Chepstow Community Hospital is also accessible, located to the east of the M4 corridor/ Severnside. Under Option 4, residents would also have good access to Nevill Hall Hospital. Through capitalising upon the strategic links to the Cardiff Capital Region and the provisions of the Capital Region Deal, Option 3 and Option 4 may also provide opportunity for achieving infrastructure improvements/ provision in the South of the County through Option 3, and the North of the County through Option 4, building more sustainable communities. However, under both Options, infrastructure provision would be limited in the rest of the County, which may exacerbate the existing deficiencies seen in many locations in relation to community and recreational facilities. This may contribute to rural isolation in certain areas; notably within smaller rural settlements outside of North Monmouthshire under Option 4.</p> <p>All options have the potential to increase opportunities for healthy living by protecting and enhancing provision of multi-functional Green Infrastructure, public open space and recreation. The value and importance of having access to locally accessible open/ green spaces to assist in recreation and health and wellbeing has been heightened during the current pandemic and should be reflected in growth strategies. Options 1 and 2 perform most positively in this respect as growth (and therefore green infrastructure provision) is delivered throughout Monmouthshire, aiding ecological connectivity throughout the County. This is compared to Options 3 and 4 which focus development to the South and North of the County respectively.</p> <p>Given the rural nature of the County, it is considered that all options will lead to positive effects in terms of providing residents with access to the countryside; although the quality of this access may differ. Options 1 and 2 perform most positively in this respect as they direct a significant level of growth to Abergavenny which is located</p>			

ISA Theme: Health and wellbeing

in close proximity to the Brecon Beacons National Park, and Monmouth and Chepstow which are located in close proximity to the Wye Valley AONB. Significant growth at these locations will provide access to these valued natural spaces, supporting the mental and physical health and wellbeing of residents.

Overall, it is considered that all Options provide a significant opportunity to deliver improvements to social/ community infrastructure. The level of infrastructure delivery is expected to be similar under all options; however, Options 3 and 4 perform less positively compared to Options 1 and 2 given the focus of growth to only the South or North of the County. All Options also provide an opportunity to deliver new and improved areas of multi-functional Green Infrastructure alongside development, and promote access to the countryside, which has become increasingly important in light of the current pandemic. Options 1 and 2 are best performing in this respect given the direction of growth towards more areas of higher accessibility, and more dispersed growth with new provisions benefitting more areas.

ISA Theme: Equalities, diversity and social inclusion

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	1	1	2	2
Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Discussion	<p>At the time of the 2014 Welsh Index of Multiple Deprivation (WIMD) none of the 56 lower super output areas (LSOAs) in Monmouthshire were in the most deprived 10% (Ranks 1-191) in Wales or the most deprived 20% (Ranks 1-382) in Wales. However, the 2019 WIMD now shows that alongside 20 LSOAs in the 50% most deprived (doubled since 2014), 5 LSOAs were in the 30% most deprived, and 2 LSOAs were in the 20% most deprived. Almost half (47%) of the total population live in wards defined as being in rural areas (i.e. with a population of less than 10,000). Population densities are, as would be expected, highest in the towns, with the majority of rural wards having low population densities when compared to national averages. When looking at the population growth between the 2001 and 2011 Census in terms of the individual town and communities, the main towns which experienced the most growth during this period were Monmouth and Chepstow.⁶ Therefore Option 1 and 2 which seek to focus growth towards these Primary Settlements are anticipated to lead to long term positive effects in terms of providing increased opportunities through employment and housing provision for the younger population to live and work in Monmouthshire; enhancing the service roles of these settlements. The current pandemic has demonstrated the importance of ensuring communities are balanced and socially sustainable, particularly in terms of demography. Option 1 and 2 will also lead to positive effects through reducing inequalities between rural and urban areas; supporting and sustaining a hierarchy of vibrant centres across the County.</p> <p>Option 3, through capitalising upon the strategic links to the Cardiff Capital Region (CCR) and the provisions of the CCR City Deal, would likely provide opportunity for building more sustainable communities and achieving infrastructure improvements/ provision in the South of the County. However, this limits opportunities for sustainable development in the Primary, Secondary and rural settlements in the rest of the County, which may lead to increased levels of inequality throughout Monmouthshire. Additionally, it is considered that if mixed-development is not prioritised and successfully utilised through Option 3, there will be a risk of exacerbating existing problems of lack of social and community facilities in rural locations, and high levels of out-commuting in Severnside. This option could lead to rural isolation. Similar effects are anticipated through the delivery of Option 4, given development would be located at the most sustainable Settlements within the North of the County to capitalise on its strategic links to the Heads of the Valleys and wider Cardiff Capital Region via the A465, and towards Herefordshire via the A449 and A40, along with rail links to Newport, Cardiff and the North via the Welsh Marches line. Growth in the North of the County would provide access to employment, retail, community facilities and social infrastructure, building sustainable communities through the provision of homes and jobs and improved levels of self-containment. However, through Option 4 housing would only be directed to the North of the County and would not address need in other areas across the County; likely impacting upon Monmouthshire's demography, leading to inequality across the County. This would likely impact on the sustainability of existing rural areas as no additional growth would be provided to help maintain/ support rural facilities, or attract additional rural employment opportunities. This option could also lead to rural isolation.</p>			

⁶ Monmouthshire County Council (2011) Census 2011 Town and Community Council Statistics <http://www.monmouthshire.gov.uk/app/uploads/2015/08/Census-2011-Town-and-Community-Council-Statistics.pdf>

ISA Theme: Equalities, diversity and social inclusion

Monmouthshire's population profile in terms of ethnic groups is different to both the Wales average and that of the South East Wales region as a whole. At the time of the 2011 census, 98% of Monmouthshire's population classified themselves as white, compared to 95.6% in Wales and 93.7% in South East Wales.⁷ The South East Wales figures are particularly influenced by the population profile of Cardiff which accounts for over 25% of the population of the region, and as would be expected the population profile is much more diverse in the city. Directing growth to the South of the County through Option 3 may contribute positively towards increasing the ethnic diversity within the County. In this context, utilising strategic links to the Cardiff Capital Region and South West England will likely support cross-boundary community cohesion, and capitalise upon regional social infrastructure connections. Positive effects are also identified in this respect in relation to Option 4, given there is the potential to develop links from Abergavenny to the wider Cardiff Capital Region.

Overall, Options 1 and 2 are preferred as they seek to support and sustain a hierarchy of vibrant centres across the County, directing the majority of the growth to the most sustainable settlements while also still delivering growth in the secondary settlements and rural areas. This will likely positively address existing demographic issues, encouraging younger people to reside and work in the County. They are also anticipated to lead to positive effects in this respect, delivering affordable housing in both urban and rural areas and where there is greatest need. There are some small differences between Options 1 and 2 in terms of how growth is distributed during the Plan period, but these differences are not significant enough to warrant one option being ranked higher or lower than the other. While Option 3 and Option 4 may support more sustainable communities and achieve social infrastructure improvements/ provision in the South and North of the County respectively, these options perform least well due to the likely isolation of communities and continuation of imbalanced demographic profile across Monmouthshire.

⁷ ONS 2011 Census

ISA Theme: Transport and movement

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 – Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	1	1	2	3
Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>Existing travel patterns in Monmouthshire reflect its rural nature; with a trend of relatively long travel to work distances, high levels of car ownership and reliance on the private car. Specifically, in 2011 82.4% of the resident population of Monmouthshire were travelling to work by car or van, compared to 76.4% in South East Wales and 78.8% in Wales. The volume of traffic in the County has also continued to increase, up nearly 10% in the seven years to 2017.⁸ The primary points of road congestion in the region are on the M4, with regular issues of congestion near Newport reflecting the high commuter levels; affecting connectivity between Monmouthshire and Cardiff.⁹ However, it is recognised that the recent increase in home-working as a result of the current pandemic is likely to continue over the longer term which will likely support reduced commuting levels and congestion in the future.</p> <p>While focusing growth along the M4 corridor through Option 3 may intensify traffic levels, it also has the potential to link housing and employment growth, utilising links to the M4 corridor and the removal of the Severn Bridge Tolls. This would reduce the need to travel by car, capitalising upon existing sustainable transport links such as rail at Caldicot and Severn Tunnel Junction Train Stations; and forthcoming improvements such as the ambitions and opportunities associated with the Cardiff Capital Region City Deal and the South East Wales Metro. The Metro will provide an opportunity for alternative sustainable travel; providing faster, more frequent and joined-up services using trains, buses and light rail.¹⁰ Notably, the Regional Bus Rapid Transit will provide a west-east connection that will complement north-south travel connectivity provided by the railway lines, and provide residents with direct access to economic opportunities located in the Heads of the Valleys corridor.</p> <p>Positive effects are also anticipated in this respect but to a lesser extent through Option 4, which seeks to predominantly locate growth in most sustainable Settlements within the North of the County. This is with the ambition to capitalise on strategic links to the Heads of the Valleys and wider Cardiff Capital Region via the A465, and towards Herefordshire via the A449 and A40 along with rail links to Newport, Cardiff and the North via the Welsh Marches line. However, lack of development outside of the Severnside area through Option 3, and outside of the most sustainable Settlements in the North through Option 4, would not generate sufficient infrastructure improvements and gains in other areas across Monmouthshire. This would likely exacerbate out-commuting in other areas and would not assist in improving self-containment of the main County towns outside the targeted growth areas (i.e. Abergavenny, Chepstow and Monmouth under Option 3, and Chepstow, and Severnside under Option 4).</p> <p>In terms of sustainable transport options available throughout the County, buses are most predominant, with the County being served by both local and national routes. The Primary Settlements of Abergavenny, Chepstow and Monmouth all have bus stations with hourly (or more frequent) services extending to the surrounding towns and villages and to the sub-region, including Bristol, Gloucester, Hereford, Newport and Cardiff. In terms of rail provision, Monmouthshire has four railway stations,</p>			

⁸ 2011 Census

⁹ Monmouthshire County Council (2015) Monmouthshire Local Transport Plan [online] available at: <https://www.monmouthshire.gov.uk/local-transport-plan/>

¹⁰ Welsh Government (2018) Rolling out our Metro <https://gov.wales/sites/default/files/publications/2018-06/south-wales-metro-brochure.pdf>

ISA Theme: Transport and movement

Caldicot, Chepstow and Severn Tunnel Junction in the South of the County and Abergavenny in the North. The centre and north east of the County are poorly served for rail travel. Options 1 and 2 will therefore lead to long-term positive effects through directing growth to these Primary Settlements, capitalising upon the sustainable transport offer and supporting lower levels of car use.¹¹

The Public Rights of Way (PRoW) network is generally good throughout Monmouthshire; with some localised fragmentation, notably in the rural areas. There are also two national cycle routes within the County, both of these run from Chepstow; number 4 - The Celtic Trail (Severn Bridge to Pembrokeshire) and number 42 (Chepstow to Glasbury, Powys).

The Active Travel (Wales) Act (2013) requires local authorities in Wales to deliver year on year improvements in active travel routes and facilities. As such, Monmouthshire has prepared a series of Integrated Network Maps (INMs) which set out the Council's plans for improving active travel routes in and around certain settlements over the next 15 years. At the time of preparation the guidance stated that the settlements should have had a population of at least 2,000 at the time of the 2001 Census. For Monmouthshire this included the settlements of Abergavenny, Caldicot, Chepstow, Magor Undy, Monmouth and Usk. However, there are existing active travel routes in smaller settlements. The maps produced show proposed future networks of key walking and cycling routes, and include schemes for delivery in the next couple of years, schemes for delivery in the medium term (5-10 years), and longer-term (10-15 years) proposals of a more aspirational nature. The INMs were submitted to Welsh Government on 27 February 2018 and these have now been approved.¹²

Options 1 and 2 focus development at settlements that provide the best current and future opportunities for achieving sustainable development; which offer a choice of transport modes and contribute towards the development of a sustainable transport network. New development will likely capitalise upon existing transport infrastructure at these locations, further promoting active travel and integrated sustainable transport opportunities. Additionally, it is considered that delivering jobs and homes in these locations will likely support levels of self-containment, reducing the reliance on the car for employment.

Despite the likelihood that higher levels of homeworking will prevail following the current pandemic, there is no guarantee that all residents will live and work in the same area, and a proportion are likely to continue the trend of out-commuting by car for journeys (recognising that currently only 3.6% of Monmouthshire resident working population travel to their place of work using public transport).¹³ Congestion is notably an issue of concern in Chepstow (given the Air Quality Management Area [AQMA] present) where a large proportion of growth through Option 1 and 2 is targeted. This presents a challenge for development, as there is significant risk that this trend would be intensified.

An appropriate amount of development is also allocated through Options 1 and 2 to Severnside; with a lower level of growth to the County's secondary settlements and rural areas, recognising that in many rural areas there is often no accessible sustainable transport offer. Infrastructure provision is notably lacking in rural areas in the North of the County, and it is recognised that a Welsh Government (and subsequent Local Transport Plan (2015)) priority is to "*maximise the contribution that effective and affordable transport services can make to tackling poverty and target investment to support improvements in accessibility for the most disadvantaged communities*". It is noted that this has been partly addressed by the introduction of a 'grass routes' bus service¹⁴, which might be utilised through Option 2 supporting the growth of

¹¹ Ibid.

¹² Monmouthshire County Council (2019) Sustainable Settlement Appraisal (draft)

¹³ ONS Census 2011

¹⁴ A demand responsive bus service available during the week for all residents of Monmouthshire and accommodation providers who are members of the scheme

ISA Theme: Transport and movement

rural communities. However, further improvements to accessibility in these settlements are unlikely to be achieved as growth would not be of a critical mass to support significant infrastructure delivery. Directing growth to the rural settlements will therefore likely promote unsustainable travel patterns, with (despite a likely higher level of homeworking) a proportion of residents continuing to travel by car to existing centres to access services and employment.

It is recognised that all Options have the potential to contribute positively towards the Welsh Government's commitment to reducing reliance on the private car and supporting the transport hierarchy and a modal shift to walking, cycling and public transport (Planning Policy Wales, Edition 10). However, Options 1 and 2 are identified as best performing through directing growth to the Primary Settlements, which are all multi-modal transport hubs that benefit from active travel routes, existing railway stations (at Abergavenny and Chepstow only) and frequent bus services. The Primary Settlements are also well placed geographically to take advantage of the strategic road network in the County. These options are therefore most likely to promote a safe, efficient, accessible and sustainable transport system that supports self-containment at the Primary Settlements; providing opportunities for walking and cycling and encouraging active travel. There are some small differences between Options 1 and 2 in terms of how growth is distributed during the Plan period, but these differences are not significant enough to warrant one option being ranked higher or lower than the other.

Option 3 will lead to long term positive effects through building more sustainable communities and achieving transport improvements/ provision in the South of the County, while Option 4 will lead to long term positive effects through building more sustainable communities and achieving transport improvements/ provision in the North of the County. However, this would be at the expense of the remainder of the County, exacerbating out-commuting and private vehicle use in other areas. At this stage the potential effects are considered to be uncertain until further evidence base work is carried out relating to the impacts of growth on the highway network.

ISA Theme: Natural resources

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus growth in the North of the County
Rank	1	1	3	2
Significant effect?	Yes - Negative	Yes - Negative	Yes - Negative	Yes - Negative
Discussion	<p>In terms of air quality, while this is not a significant issue for the County, it is nonetheless recognised that air pollution is a major cause of death and disease globally.¹⁵ The greatest problems associated with air quality in the County are caused by vehicle emissions; evidenced by the two Air Quality Management Areas (AQMAs) declared at Primary Settlement Chepstow and Secondary Settlement Usk for NO₂.¹⁶ Directing growth to these locations through Options 1 and 2 (and to a lesser extent Option 3) has the potential to exacerbate existing air quality issues through increased road users and subsequent increased levels of congestion. Notably, Chepstow AQMA includes the A48, between the roundabout with the A466, which would likely be utilised by commuters. The Air Quality Action Plans for both areas contain many transport-related measures, and these have been taken account through the development of the LTP (2015).¹⁷ In accordance with the LTP and higher level policy frameworks, Options are anticipated to deliver mitigation where possible; ensuring the location of new development does not worsen conditions in the AQMAs, or result in the declaration of new ones. Further, the current pandemic has resulted in higher levels of homeworking which are likely to prevail in the longer-term, reducing congestion pressures on air quality. In this context, Options 1 and 2 will likely further support the increased use of sustainable transport and reduced reliance on the private vehicle through delivering homes that are well located to services, facilities and employment in existing centres.</p> <p>Delivering under all Options has the potential to lead to positive effects through capitalising upon the strategic links to the Cardiff Capital Region and the provisions of the CCR City Deal. The Capital Region is committed to a low carbon future, delivering healthier and sustainable travel options, which would likely provide opportunity for building more sustainable communities and improved air quality</p> <p>There is a limited supply of brownfield land in the County, with the average percentage of housing completions on brownfield land over the past ten years totalling approximately 48.4%.¹⁸ The lack of brownfield land in the urban areas is a concern for the RLDP, with limited opportunities existing in the Primary Settlements only. Options 1 and 2 are therefore best performing in this respect, as while growth is likely to be predominately greenfield development, brownfield land within the Primary Settlements will be utilised where possible. Option 4 seeks to deliver growth to the most sustainable Settlements in the North, which includes Monmouth and Abergavenny, in addition to Raglan; a Secondary Settlement. A significant proportion of development under Option 4 is therefore likely to be on greenfield land. Option 3 is also considered to lead to long term significant effects as there are limited opportunities for brownfield development in the Severnside area, with development likely to be predominately on greenfield land.</p>			

¹⁵ World Health Organisation (2019) Ambient air pollution: Health impacts <https://www.who.int/airpollution/ambient/health-impacts/en/>

¹⁶ Air Quality in Wales (2019) Air Quality Management Areas <https://airquality.gov.wales/laqm/air-quality-management-areas>

¹⁷ Monmouthshire County Council (2015) Monmouthshire Local Transport Plan [online] available at: <https://www.monmouthshire.gov.uk/local-transport-plan/>

¹⁸ Monmouthshire Housing Land Availability Surveys 2008-2018

ISA Theme: Natural resources

Monmouthshire has a significantly high percentage of best and most versatile agricultural land (i.e. Grade 1, 2 or 3a). While there is a need to conserve these resources, there are limited opportunities within the County for development on lower grades of agricultural land (i.e. Grade 3b, 4 and 5). All options are therefore likely to result in the loss of some areas of BMV agricultural land, leading to significant long term negative effects against this ISA theme. The Predictive ALC model for Wales (2017) is based on the principles of the Agricultural Land Classification System of England & Wales, the Revised Guidelines & Criteria for Grading the Quality of Agricultural Land (MAFF 1988).¹⁹ This data model allows you to predict the distribution of BMV land throughout the County, and in relation to key areas as set out in the settlement hierarchy:

- **Primary Settlements** are predominately urban centres, with areas of Grade 3a land located to the east of Abergavenny and integrated between the main urban area throughout Monmouth. Interspersed areas of high quality Grade 2 land and non-agricultural land are present around Chepstow.
- **Secondary Settlements** include significant areas of BMV land; areas of Grade 3a land surround Usk (notably to the south). North east/ and north west of Penperlleni and north/ north east of Raglan are areas of Grade 3a land. Grade 2 and 3b land is dispersed outside of Raglan's urban area.
- **Severnside** is particularly constrained by Grade 2 and Grade 1 land, surrounding the M4. Significantly constrained areas include the entirety of Crick, and large areas within Caerwent, between Rogiet and Magor/ Undy, and north of Sudbrook.
- **Rural settlements** have not yet been defined²⁰; however, it is recognised that outside of the main settlements there is a significant amount of BMV agricultural land, reflecting the rural nature of the County.

In terms of the Options, it is therefore considered that directing growth to the existing main settlements through Options 1 and 2 will help to protect best and most versatile agricultural land in the rural areas. Option 4 is also anticipated to perform well in this respect, given growth is directed to the primary settlements of Abergavenny and Monmouth, and the secondary settlement of Raglan. However, it is recognised that there are limited opportunities for brownfield development within the County's existing urban areas, and that the delivery of all Options would inevitably lead to loss of greenfield land, as discussed above. Nonetheless it is considered that residual loss may be less significant under Option 4 as the settlements in the North are not identified as being significantly constrained in terms of BMV land. Given the extent of BMV land surrounding Severnside and the M4 corridor, it is considered that Option 3 will lead to significant long term negative effects through inevitable permanent loss of BMV land.

While mineral extraction plays a limited role in Monmouthshire's economy, there remains a need to safeguard the County's mineral resources in order to make an appropriate contribution to the sustainable supply of aggregates to the wider South Wales economy. Development would be located away from safeguarded areas under Options 1, 2 and 4. Due to the focus of development in the South of the County through Option 3, this Option has the potential to adversely impact upon the Limestone Mineral Safeguarding Area present. Option 3 is therefore worst performing in this respect. The Options are considered to lead to neutral effects in terms of waste, as it is considered that all of them are capable of being served by appropriate waste infrastructure.

Water is supplied to Monmouthshire by the Dwr Cymru/Welsh Water (DCWW). They supply water via a large scale, multi-source, integrated network that is typical of many other water company areas. Monmouthshire falls within two Water Resource Zones (WRZs); Monmouth and the South East Wales Conjunctive Use System (SEWCUS). The Monmouth WRZ supplies the market town of Monmouth and the surrounding villages. The WRZ is heavily dependent on the Mayhill abstraction from the River Wye at Monmouth. There is also a spring abstraction at Ffynnon Gaer which supplies a small localised area south of Monmouth. The SEWCUS supplies the

¹⁹ [http://lle.gov.wales/map/alc#m=-2.7235,51.59785,14&b=europa&l=908h:893h:1326,0.37:](http://lle.gov.wales/map/alc#m=-2.7235,51.59785,14&b=europa&l=908h:893h:1326,0.37;)

²⁰ Monmouthshire County Council (2019) Growth and Spatial Options Consultation Report

ISA Theme: Natural resources

majority of the County, and a significant proportion of the South East Wales Region. In total, there are over 40 resources that are used to supply the SEWCUS WRZ, which include a mixture of river abstractions from the larger rivers in the east of the WRZ and relatively small upland reservoir sources with small catchment areas. For both WRZs the total demand for water is forecast to remain relatively stable until 2030, with a decline in demand anticipated over the 2030-2050 planning period, and then to just 10% of current demands by 2050. Water companies are legally required to supply water to private consumers and businesses within their area. As set out in the Water Industry Act 1991, they must prepare and maintain a Water Resources Management Plan (WRMP) that sets out how the company intends to maintain the balance between water supply and demand. Water companies update their WRMPs every 5 years to take account of predicted growth and ensure that there are schemes in place to meet future demands.

All Options are anticipated to deliver neutral effects in terms of impact on water resources, with no best performing Option identified. This is given the legal requirements in place for WRMPs, and that all Options are assumed to deliver the same level of growth throughout the Plan period. It is expected that development coming forward under any of the Options will be encouraged to be water efficient and may deliver mitigation (for example rain water harvesting measures) to support reduced water use per person per day. This is in accordance with PPW10 (2018) which outlines the contributions planning can make, including “ensuring resilient local choices for infrastructure and built development, taking into account water supplies, water quality and reducing, wherever possible, air and noise pollution and environmental risks, such as those posed by flood risk, coastal change, land contamination and instability.”

Overall, while it is difficult to identify any significant differences between the options in terms of water resources and quality, Options 1 and 2 followed by Option 4, are best performing in terms of utilising brownfield land and protecting BMV agricultural land, and ensuring that air quality is not reduced throughout the County. However, it is recognised that there are limited opportunities for the regeneration of brownfield land so ultimately the majority of growth will be on greenfield and potentially agricultural land. Option 3 performs least well given it may also lead to the loss of significant greenfield/BMV land and has the potential to adversely impact upon the Limestone Mineral Safeguarding Area present to the south of the County. All the Options have the potential for a significant negative effect against the natural resources theme through the potential loss of BMV agricultural land, although it is acknowledged that there is an element of uncertainty at this stage until the precise location of development is known.

ISA Theme: Biodiversity and geodiversity

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 – Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	=	=	=	=
Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>It is assumed that development proposed under any of the Options would not result in the loss of any international, national or locally designated sites for biodiversity. In terms of internationally designated biodiversity sites, the following are located within the County:</p> <ul style="list-style-type: none"> <p>Severn Estuary Special Protection Area (SPA), Special Area for Conservation (SAC), Ramsar Site, and Site of Special Scientific Interest (SSSI) is the largest coastal plain estuary in the UK with the second highest tidal range in the world. The site covers the southern extent of the County, and contains habitats listed under Annex I of the Habitats Directive. These include estuaries, mudflats and sandflats. In addition to Annex I habitats present, primary reasons for designation are species listed under Annex II of the Habitats Directive including Sea lamprey, River lamprey and Twaite shad.</p> <ul style="list-style-type: none"> Primary reasons for the SPA designation is that the site qualifies as an area of Internationally Important Assemblage of Birds, under Article 4.2, where over the winter the area regularly supports 84,317 waterfowl. Primary reasons for Ramsar designation is that there are eight criteria that are within the Ramsar designation. This includes the immense tidal range creating diversity of the physical environment and biological communities, and due to unusual estuarine communities, reduced diversity and high productivity. This site is also designated due to the importance for the run of migratory fish between sea and river via the estuary. It is also of particular importance for migratory birds during spring and autumn. <p>River Wye SAC covers the length of the River Wye, to the north east of the County, notably extending through Monmouth. The SAC contains habitats listed under Annex I of the Habitats Directive and a variety of species listed under Annex II of the Habitats Directive which are also the primary reasons for designation. The River Wye is important for its population of Atlantic salmon, and whilst stocks have declined the salmon population is still of considerable importance in UK terms. The Wye also holds the densest and most well established otter population in Wales. The site is considered one of the best in the UK for white-clawed crayfish. Other important species supported by the River Wye are twaite shad, bullhead and river, sea and brook lamprey.</p> <p>River Usk SAC covers the length of the River Usk, to the west of the County, running through Abergavenny and Usk. The SAC contains habitats listed under Annex I of the Habitats Directive and a variety of species listed under Annex II of the Habitats Directive; that are primary reason for designation. The River Usk SAC is part within the Brecon Beacons National Park Planning Area.</p> <p>Wye Valley Woodlands SAC is a large woodland SAC that straddles the Wales-England border, extending along the east of the County. The site is underpinned by nine SSSIs in Wales and seven in England. The Wye Valley contains abundant and near continuous semi-natural woodland along the gorge. The variety of woodland types found are rare within the UK.</p> <p>Wye Valley and Forest of Dean Bat sites SAC straddles the Wales-England border, extending along the east of the County. It is underpinned by four SSSIs in Wales and nine in England, all of which lie entirely within the SAC. This composite of sites contains the greatest concentration of lesser horseshoe bat in the UK, totalling about 26% of the national population.</p> <p>There are an additional four European Sites within the Brecon Beacon National Park which must also be considered. These are Coed y Cerrig SAC, Cwm Clydach Woodlands SAC, Sugar Loaf Woodlands SAC, and Usk Bat Sites SAC. Further to this, Llangorse Lake/ Llyn Syfaddan SAC, in Powys, and Aberbargoed Grassland</p> 			

ISA Theme: Biodiversity and geodiversity

SAC Caerphilly fall within 15km of Monmouthshire and therefore could possibly be affected by growth proposed through the RLDP. A full HRA is currently being undertaken in respect of the replacement Monmouthshire LDP.

Additional development proposed through the RLDP is most likely to have impacts on the European sites discussed above through the loss and fragmentation of linear foraging habitats for bat species, atmospheric pollution, increased disturbance (recreation, noise and light), and through impact on water quality and resources. In terms of ranking the Options, it is considered that all Options are constrained to some extent by internationally designated sites. In this context, Option 3 has the potential to lead to negative effects on the Severn Estuary SAC given settlements such as Sudbrook within this Option are adjacent to the internationally designated site. Options 1, 2 and 4 have the potential to lead to negative effects on numerous internationally designated sites which extent throughout the Primary and Secondary Settlements; notably the River Usk SAC passes through Abergavenny and Usk, the River Wye SAC passes through Chepstow and Monmouth, and Chepstow and Monmouth are also in close proximity of the Wye Valley Woodlands.

In terms of nationally designated sites, there are 50 SSSIs that fall wholly within the County. Most are woodland or grassland sites, with others designated for their wetland or geological interest, and a few designated for bat interest. It is noted that of these, 16 fall within the SACs listed above. Spatially, a significant proportion of the SSSIs are located to the north west of the County, within the Brecon Beacons National Park and surrounding Abergavenny. Growth directed to Abergavenny through Options 1, 2 and 4 therefore have the potential to adversely impact upon SSSIs; including Sugar Loaf Woodlands SSSI and Coed-Y-Person SSSI. Impacts are most likely to arise as a result of increased recreational disturbance. There is also a cluster of SSSIs to the east of the County around Monmouth, and dispersed in the rural landscape between Monmouth and Chepstow in the south, which may also be impacted by Options 1, 2 and 4 given growth is directed to these locations. Notably Fiddler's Elbow SSSI and Lady Park Wood SSSI are also the County's two National Nature Reserves (NNRs) and may be impacted by high growth at Monmouth.

There are also several SSSIs along the M4 corridor and to the southern extent of the County, including the Gwent Levels SSSI and component SSSIs under the Severn Estuary SAC as discussed above. Option 3 has the greatest likelihood for impacts on these SSSIs given the focus of development to the South of the County. Impacts are most likely to arise as a result of increased recreational disturbance, water pollution, and air pollution.²¹

All of the Options have the potential to impact nationally designated sites, the nature and significance of effects will ultimately depend on the precise location of development and the implementation of mitigation measures.

In terms of locally important biodiversity, there is just one Local Nature Reserve (LNR) designated within the County; Cleddon Bog. Cledden Bog LNR is located within the Wye Valley AONB in the rural landscape, and is not likely to be affected by any of the Options. Monmouthshire also includes approximately 650 Sites of Importance for Nature Conservation (SINCs) (also known as Local Wildlife Sites (LWSs)). These predominantly relate to grassland and ancient and semi-natural woodland areas. SINCs are dispersed throughout the County, and it is considered that development coming forward under any of the Options could have localised impacts on these designed sites.

In addition to designated sites, all Options have the potential to result in adverse effects on biodiversity through loss of greenfield land and priority habitats. Habitat fragmentation is a key issue for the County; for example, fragmentation of hedgerows caused by development and canalised streams and rivers. Options 1 and 2 are

²¹ Natural England (2015) Site Improvement Plan: Severn Estuary Mor Harfen <http://publications.naturalengland.org.uk/publication/4590676519944192>

ISA Theme: Biodiversity and geodiversity

likely to result in habitat loss and fragmentation across a wider area of the County whereas Options 3 and 4 are likely to have an effect of greater significance on a more localised area.

Overall, it is considered that all Options have the potential to adversely impact upon the County's biodiversity resource, with the potential for significant residual negative effects. The focus of development in the Primary Settlements through Options 1, 2 and 4 will likely result in increased pressure on the environment, due to concentrating growth in locations around the existing main settlements in the North where a number of internationally/ nationally designated biodiversity sites are located. A number of the smaller rural settlements and Severnside are also constrained at an international/ national level, and therefore impacts on biodiversity may not be lessened through Option 3.

It is also recognised that all Options have the potential to deliver positive effects on biodiversity through enhancement measures. This is currently uncertain, and therefore at the County scale it is difficult to differentiate between the Options. Ultimately the nature and significance of effects will ultimately be dependent on the design/ layout of development as well as the implementation of mitigation measures.

ISA Theme: Historic environment

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	=	=	=	=
Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>There is one internationally designated site falling partially within the County; Blaenavon Industrial World Heritage Site (WHS), located to the west of Abergavenny. The WHS was inscribed by UNESCO in 2000 on account of its industrial landscape having Outstanding Universal Value (OUV). A Management Plan has been prepared for the period 2018-2023 a suite of policies for the continued effective protection, conservation, presentation and transmission of the Site's OUV.²²</p> <p>There are also a range of designated heritage assets and archaeological areas within the County:</p> <ul style="list-style-type: none"> • 31 Conservation Areas including a range of areas from market towns, rural villages and medieval castles. The largest three Conservation Areas are Mathern (231.6ha), Llanarth (203.1ha) and Abergavenny (152.8ha). In addition to these three, there are Conservation Areas located in the remaining Primary and Secondary Settlements. There is a collection of Conservation Areas to the south of the County, including within numerous settlements along the M4 corridor, and within rural settlements along the eastern border of the County. • 45 Historic Parks and Gardens varying considerably in size and character, the largest of which are Chepstow Park and Piercefield Park, both located in Chepstow. Many Historic Parks and Gardens are located in Chepstow and the wider south east of the County, with others distributed throughout the settlement hierarchy and in the more rural settlements, notably south of Abergavenny and north west of Monmouth. • 3 Landscapes of Outstanding Historic Interest have been identified by CADW within the County – Blaenavon, the Gwent Levels and the Lower Wye Valley. • 164 Scheduled Monuments are widely dispersed across the County. • > 2,206 Listed Buildings of which 2% are Grade I, 10% are Grade II * and 88% are Grade II. There are multiple Grade I listed buildings located within the Primary Settlements (notably five in Chepstow, four in Monmouth and two in Abergavenny - including the Abergavenny Castle Ruins within the town centre). Usk also has four Grade I listed buildings, including Usk Castle and its precincts. Of the Listed Buildings, 166 (7.5% of the stock) are identified as being 'at risk'. The four communities with the highest percentage of listed buildings at risk based on the number of buildings are: <ul style="list-style-type: none"> – St Arvans - 12 buildings – Tintern - 9 buildings – Rogiet - 4 buildings – Llanbadoc - 4 buildings • 10 Archaeologically Sensitive Areas (ASAs) of which the largest extends across the south of the County, covering Caldicot, Rogiet, Magor Undy, and the Gwent Levels. There are also ASAs present at each of the Primary Settlements, Usk and Raglan, and rural locations outside of the main settlements. 			

²² Chris Blandford Associates (2018) Blaenavon Industrial Landscape World Heritage Site Management Plan 2018-2023
<http://moderngov.torfaen.gov.uk/documents/s35685/Blaenavon%20WHS%20Management%20Plan%20FINAL%20SEPTEMBER%202018.pdf>

ISA Theme: Historic environment

Given the volume of heritage assets located throughout the County, it is considered that all of the Options are likely have an impact on the historic environment. It is considered that growth focussed at the Primary Settlements in the North through Options 1, 2 and 4 will result in increased pressure on the rich historic environment present at these locations; including notably the WHS and its setting, extensive Conservation Areas (all of which contain numerous Listed Buildings), Registered Parks & Gardens, and Grade 1 Listed Buildings, at Abergavenny, Chepstow and Monmouth. Together with their settings, these heritage assets require protection and enhancement, in accordance with the WHS Management Plan (2018), Conservation Area Appraisals and requirements of Planning Policy Wales (2018). It is therefore considered that directing significant growth to these locations has the potential for negative effects of greater significance, and reflects a likely greater need for suitable mitigation in development strategies

It is noted that the redevelopment of brownfield sites in the Primary Settlements, i.e. through Options 1 and 2, and to a lesser extent Option 4, has good potential for positive townscape improvements. In this context, where proposals seek to deliver good, high quality design and appropriate layout, this may lead to landscape/ townscape improvements and positive effects such as increased awareness and access. This however is uncertain at this stage, and it is recognised that the County has a limited offer of brownfield land.

In terms of Option 3 it is considered that the South of the County is also sensitive in terms of the historic environment. Notably constraints include the ASA which extends across the M4 corridor; Portskewett, Caldicot and Major/ Undy contain Grade I Listed Buildings; Rogiet contains four listed buildings at risk; the Gwent Levels Registered Landscape of Outstanding and of Special Interest covers areas of Caldicot, Undy and Magor; and there are numerous Conservation Areas present. Focussing growth to the South therefore has the potential to adversely impact upon archaeological and/ or historic assets, their settings and intrinsic qualities. As discussed for other Options, development also has the potential to deliver neutral/ positive effects through having a positive contribution to an area's character or appearance. It is also noted that directing growth to the South of the County will preserve the historic environment in the remainder of the County, maintaining the historic landscape and setting of towns and villages, and protecting settlement identity.

It is recognised that Monmouthshire's cultural assets also include the use of the Welsh language. None of the Options are considered likely to have a significant effect on the Welsh language, and it is therefore not possible to distinguish between the Options in this respect.

Overall, it is difficult to rank the Options in terms of preference against this ISA Objective as they are all predicted to have a residual significant effect as they direct development to areas that are sensitive in terms of the historic environment; albeit in different areas of the County. It is considered that the significance of effects will ultimately be dependent on the design/ layout of development as well as the implementation of mitigation measures.

ISA Theme: Landscape

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	2	2	1	2
Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>Monmouthshire has a rich and diverse landscape stretching from the coastline of the Gwent Levels in the south of the County, to the uplands of the Brecon Beacons in the north, and the river corridor of the Wye Valley in the east. In terms of nationally designated landscapes, the County incorporates:</p> <ul style="list-style-type: none"> • Wye Valley AONB located to the east of Monmouthshire. The part of the Wye Valley AONB located within Monmouthshire covers approximately 16% of the Monmouthshire LDP area. • Brecon Beacons National Park located to the north west of Monmouthshire. The portion of the Brecon Beacons National Park (BBNP) located in Monmouthshire covers approximately 17% of the County. <p>In line with Planning Policy Wales (2018) it is recognised that the Wye Valley AONB and Brecon Beacons National Park are “valued for their intrinsic contribution to a sense of place, and that their special characteristics should be protected and enhanced.” In addition to national policy requirements, protection is also provided to the Wye Valley through the Wye Valley AONB Management Plan (2016), which sets out five Development Strategic Objectives, underpinning the AONB aim to “Ensure all development within the AONB and its setting is compatible with the aims of AONB designation”. Notably, Objective WV-D2 seeks to “encourage and support high standards of design, materials, energy efficiency, drainage and landscaping in all developments”.²³ In terms of the Brecon Beacons National Park, there is an established Local Development Plan (LDP) in place and development management functions in the correlating part of the County. The LDP “represents and defines the National Park Authority’s approach for ensuring sustainable development is carried out in the National Park.”²⁴ While protection is provided at the higher level, it is nonetheless considered, given the level of growth proposed through all Options, that development has the potential to adversely impact upon special landscape features, character, and setting.</p> <p>The focus of development in the Primary Settlements in the North through Options 1, 2 and 4 is anticipated to result in increased pressure on landscape character, setting, and the intrinsic qualities of the AONB and National Park. This is given Options 1, 2 and 4 direct a significant level of growth to Abergavenny which is located in close proximity to the National Park and Monmouth and Chepstow which are located in close proximity to the Wye Valley AONB.</p> <p>Option 3 directs growth away from Monmouthshire’s nationally designated landscapes, to the South of the County. This will likely reduce the potential for residual adverse effects through protecting these high quality landscapes, and directing growth to areas anticipated to be of higher capacity to accommodate new development, given the urban environment surrounding the M4 corridor. Additionally, directing growth along the M4 corridor will contribute positively towards the preservation of local</p>			

²³ Wye Valley AONB Joint Advisory Committee (2016) Wye Valley Area of Outstanding Natural Beauty (AONB) Management Plan 2015 – 2020 <http://www.wyevalleyaonb.org.uk/index.php/publications/>

²⁴ Brecon Beacons National Park Authority (2019) Brecon Beacons National Park Local Development Plan (2018 – 2033) Preferred Strategy Consultation Document <https://www.beacons-npa.gov.uk/planning/draft-strategy-and-policy/local-development-plan-review/preferred-strategy/>

ISA Theme: Landscape

landscapes throughout the remainder of the County and the rural areas, avoiding development in the open countryside and supporting sustainable patterns of development.

Overall, given Monmouthshire's rural nature and the landscape assets present, it is considered that Options 1, 2 and 4 are more likely to have a negative effect as a result of development in the North. In terms of ranking the Options, Options 1, 2 and 4 are considered worst performing given these Options direct the highest level of growth in close proximity to the AONB and National Park. Option 3 is best performing and unlikely to give rise to significant effects given it concentrates growth along the M4 corridor which is an urban area distant from the nationally designated landscapes located to the east and north west of the County. Given that the precise location of growth is not known and further evidence base work is being carried out around landscape sensitivity, all of the options are found to have an uncertain effect at this stage.

ISA Theme: Climate change

Options	Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Rank	2	2	1	2
Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Discussion	<p>Development proposed under any of the Options has the potential to incorporate renewable or low carbon energy, EV charging and smart infrastructure which can support more resilient community infrastructure. There are three substantial main rivers that pass through Monmouthshire, the Rivers Wye, Usk and Monnow and a number of smaller but significant ones are the River Trothy, Olway and Neddern. Monmouthshire is at risk from all types of flooding: surface water, ordinary watercourses, groundwater, rivers and the sea. Both the towns and rural areas are at risk from surface water flooding to various extents during heavy rainfalls. The terrain of the County with its hills, valleys and plains is also at risk of flooding from watercourses. It is considered that the River Wye has the potential to affect more properties than the others.²⁵</p> <p>In line with the Flood Risk Regulations (2009), the Preliminary Flood Risk Assessment (PRFA) process has been carried out in order to establish the level of flood risk within the area. Subsequent to this, a Flood Risk Management Plan (FRMP) has been produced (2016) which sets out the findings of the PFRA.²⁶ The FRMP highlights that in terms of fluvial flood risk, communities at most risk from a 1 in 1000 year flood (Flood Zone 2) are Monmouth, Abergavenny and Usk. Communities most at risk of 1 in 1000 year surface flooding (Flood Zone 2) were Caldicot, Abergavenny, and Chepstow. Monmouth, Magor/Undy, Llanfoist Fawr, Usk, and Portskewett all feature as part of the top ten communities at risk from surface water flooding.²⁷ As such, directing growth to the most sustainable Settlements through Options 1, 2 and 4 have the potential to lead to long term negative effects, given these settlements have been identified as high flood risk areas. It is considered that all new development will accord with Technical Advice Note 15: Development and Flood risk (2004), which sets out a precautionary framework to direct new development away from those areas which are at high risk of flooding.²⁸ To this effect, in accordance with national policy, information will need to be provided to demonstrate that any development proposal satisfies the tests contained in the TAN.</p> <p>Option 3 delivers growth to the South of the County, which is not identified through the FRMP as being significantly constrained in terms of fluvial flood risk, with only Magor/ Undy and Portskewett identified as at medium risk of surface water flooding. This Option is therefore likely to perform more positively than other Options, through delivering growth outside of areas at highest risk of flooding.</p>			

²⁵ Monmouthshire County Council (2016) Monmouthshire County Council Flood Risk Management Plan <https://www.monmouthshire.gov.uk/app/uploads/2016/04/Flood-Risk-Management-Plan.pdf>

²⁶ Ibid.

²⁷ Ibid.

²⁸ Welsh Government (2004) Planning Policy and Guidance: Flooding – Technical Advice Note (TAN) 15: Development and Flood Risk <https://gov.wales/technical-advice-note-tan-15-development-and-flood-risk>

ISA Theme: Climate change

Overall, it is considered that Options 1, 2 and 4 perform less positively compared to Option 3 given they direct growth to locations vulnerable to flooding. It is however recognised that there is a level of uncertainty for all Options at this stage, and therefore the nature and significance of effects will be dependent on the precise location of growth and mitigation delivered at the project level.

Summary findings

Table 3.2: ISA summary findings for spatial strategy options

ISA Themes	Rank/ Significant effects	Categorisation and rank			
		Option 1 - Continuation of the existing LDP strategy	Option 2 - Distribute Growth Proportionately across the County's most Sustainable Settlements	Option 3 - Focus Growth on the M4 Corridor	Option 4 - Focus Growth in the North of the County
Economy and Employment	Rank	1	1	2	2
	Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Population and Communities	Rank	1	1	2	2
	Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Health and wellbeing	Rank	1	1	3	2
	Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Equalities, diversity and social inclusion	Rank	1	1	2	2
	Significant effect?	Yes - Positive	Yes - Positive	Uncertain	Uncertain
Transport and movement	Rank	1	1	2	3
	Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Natural Resources	Rank	1	1	3	2
	Significant effect?	Yes - Negative	Yes - Negative	Yes - Negative	Yes - Negative
Biodiversity and geodiversity	Rank	=	=	=	=
	Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Historic Environment	Rank	=	=	=	=
	Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Landscape	Rank	2	2	1	2
	Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain
Climate Change	Rank	2	2	1	2
	Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain

The appraisal found that there is little to differentiate between the options at this stage with regard to the historic environment and biodiversity ISA themes. This is given that all options have the potential to result in negative effects by directing development to areas that are sensitive in terms of heritage and biodiversity constraints; albeit in different areas of the County. However, it is recognised that mitigation could be provided and that development also has the potential to deliver positive effects environmental improvement/ enhancement measures secured at the project scale. The nature and significance of effects will be dependent on the precise scale and location of development.

In terms of the landscape and climate change themes, Option 3 directs development to areas of lower flood risk and that are less sensitive in landscape terms and is therefore considered to perform better compared to the other options. All other options focus development in areas that are of high flood risk (though it is anticipated that high flood risk areas would be avoided in line with national policy and sequential testing) and in close proximity to landscape designations with a higher likelihood of negative effect arising. Given that the precise location of growth is not known and further evidence base work is being carried out around landscape sensitivity, all of the options are found to have an uncertain effects in relation to the landscape and climate change themes.

In terms of natural resources, it is difficult to identify any significant differences between the options in relation to water resources and quality. Options 1, 2 and 4, are best performing in terms of utilising brownfield land and protecting Best and Most Versatile (BMV) agricultural land, and ensuring that air quality is not reduced throughout the County. However, it is recognised that there are limited opportunities for the regeneration of brownfield land so ultimately the majority of growth will be on greenfield and potentially agricultural land. Option 3 performs less well given it may also lead to the loss of significant greenfield/ BMV land and has the potential to adversely impact upon the Limestone Mineral Safeguarding Area present to the south of the County. All the Options have the potential for a significant negative effect against the natural resources theme through the potential loss of BMV agricultural land, although it is acknowledged that there is an element of uncertainty at this stage until the precise location of development is known.

Options 1 and 2 perform more positively and are found to have the potential for significant long term positive effects against ISA themes relating to population/ communities, health/ wellbeing, economy/ employment and equalities compared to the other options. They focus growth at the most sustainable Settlements where there is greater need and better access to public transport, existing employment and facilities/ services. The importance of high levels of local accessibility to open space, services and facilities have been highlighted through the current pandemic. It should be noted that there are some small differences between Options 1 and 2 in terms of how growth is distributed during the Plan period, but these differences are not significant enough to warrant one option being ranked higher or lower than the other against the ISA themes referred to earlier in this paragraph.

Option 3 capitalises upon opportunities associated with the Cardiff Capital Region City Deal, the South East Wales Metro, and the continuing economic growth of the Bristol/ South West region. Whereas, Option 4 focuses growth to the most sustainable Settlements to the North of the County capitalising upon opportunities associated with the Cardiff Capital Region City Deal, the A465, and towards Herefordshire via the A449 and A40 along with rail links to Newport, Cardiff and the North via the Welsh Marches line. However, limited growth to the rest of the County under Option 3 and Option 4 would restrict economic growth in the wider County, and would not assist in sustaining Monmouthshire's existing communities; exacerbating existing demographic issues and levels of out-commuting.

Consideration is also given throughout the appraisal to the recent publication of the Future Wales National Plan 2040 (Working Draft National Development Framework (NDF)) which indicates a desire to designate a Green Belt *"around Newport and eastern parts of the region"*. This is anticipated to include a large part of South Monmouthshire which, if implemented would significantly constrain future growth in this part of the County. Option 4 would accord with the direction of the Future Wales document, and therefore performs positively in terms of facilitating growth consistent with emerging National policy. Conversely Option 3 would direct growth to the

south where the Green Belt is proposed through the Future Wales document. As all other options seek to disperse growth throughout the County, and a defined location has not yet been established for the Green Belt, it is difficult to make any definitive conclusions on the nature and significance of effects at this stage.

