

West of England Joint Spatial Plan

Joint Spatial Plan – Towards the emerging Spatial Strategy Consultation

Introduction

1. The Joint Spatial Plan 'Issues and Options' document was consulted upon between 9th November 2015 and 29th January 2016. The responses to the consultation and the summary consultation report which have informed this document can be found here: <https://www.jointplanningwofe.org.uk/> .
2. This document is the second phase of consultation to inform the draft Joint Spatial Plan which is intended to be adopted in 2018.
3. The West of England (WoE) currently faces a key challenge: how to accommodate and deliver much needed new homes and jobs properly supported by infrastructure to create attractive places, while maintaining the environmental assets and quality of life unique to our area. The scale of the issue to be addressed requires an ambitious strategic response.
4. The local authorities of Bath and North East Somerset Council, Bristol City Council, North Somerset Council and South Gloucestershire Council have joined forces to prepare the Joint Spatial Plan (JSP). The JSP will be a statutory Development Plan Document that will provide the strategic overarching development framework for the West of England to 2036.
5. A Joint Transport Study (JTS) is being undertaken to develop future strategic transport proposals for delivery up to 2036 that address current challenges on the network and to inform future development proposals. This work will inform the JSP. This joint approach to planning and transport will ensure that future growth decisions are made with an understanding of the necessary transport investment needed to achieve sustainable communities.

Purpose of the Joint Spatial Plan

6. The four authorities are committed to a positive plan-led approach. This is consistent with the Government's core planning principles and the Duty to Cooperate. Whilst the JSP is not a detailed land use plan, it is a statutory Development Plan Document and will form the strategic policy for individual Local Plans prepared by the four Authorities going forwards. The scope of the JSP, with its supporting evidence base, is intentionally focused on:
 - identifying the number of new market and affordable homes and amount of employment land that is needed across the West of England 2016-2036.
 - setting out the most appropriate spatial strategy and strategic locations for where this growth should be to meet the needs identified. The outcome of this process will be

housing apportionments for each authority in the final JSP.

- identifying the transport and other infrastructure that needs to be provided in the right place and at the right time to support sustainable growth and to provide certainty for our communities and those that want to invest in our area.

Relationship of the Joint Spatial Plan to Local Plans

7. The JSP will, in due course, carry significant weight and be used to inform key planning decisions. Whilst it will not replace existing local plans, in due course it will be a material consideration in decision making. In the meantime, existing local plans will continue to deliver existing Core Strategy targets. Local plan reviews will need to respond to the new strategic context. The JSP will eventually (when adopted) provide the new higher level strategic planning framework for the four authorities to 2036.
8. Given the early stage that the JSP is at, and in the spirit of early engagement on options, the JSP will not carry significant weight at this time which would be premature.
9. The Housing and Planning Act 2016 has a new route for planning permission for housing led development called 'planning permission in principle' or PIP. A PIP may be granted for housing-led development either on application to the local planning authority (or Secretary of State in some instances), or through qualifying documents. The JSP is not expected to be a qualifying document for establishing planning permission in principle.. The JSP Spatial Strategy will identify strategic development locations which will be brought forward as allocations through the local plan process.

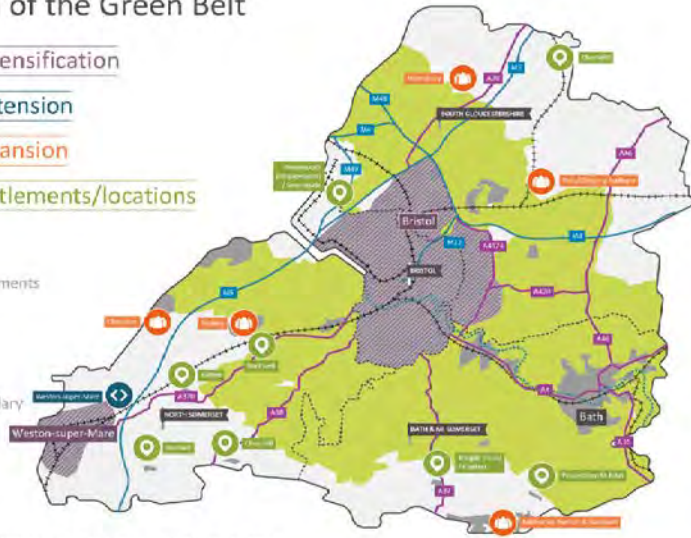
Purpose of this document

10. During the public consultation on the Issues and Options document we set out potential strategic locations classified by broad typologies and asked for comments on five potential generalised spatial scenarios to base the Plan's spatial strategy upon. These are listed below and pictorial representations of the first three are shown:
 - Protection of the Green Belt
 - Concentration at Bristol Urban Area
 - Transport Focused
 - A more even spread of development across the sub-region
 - New Settlement or (a limited number of expanded settlements).

Protection of the Green Belt

-  Urban intensification
-  Urban extension
-  Town expansion
-  Other settlements/locations



-  Green Belt
-  Existing settlements
-  Motorway
-  A Road
-  Railway line
-  Council boundary
-  River



Note: Locations are illustrative only and must not be taken to imply any specific development site or a preference for identified options

Transport focused



-  Urban intensification
-  Urban extension
-  Town expansion
-  Other settlements/locations








-  Green Belt
-  Existing settlements
-  Motorway
-  A Road
-  Railway line
-  Portishead line
-  Council boundary
-  River

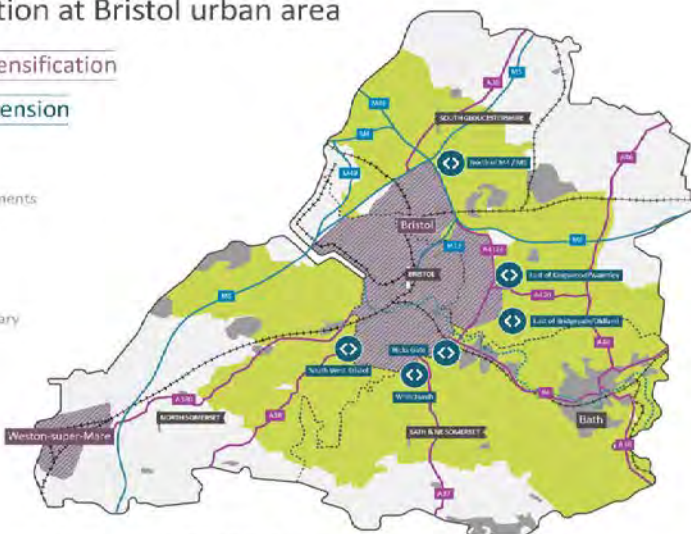


Note: Locations are illustrative only and must not be taken to imply any specific development site or a preference for identified options

Concentration at Bristol urban area

-  Urban intensification
-  Urban extension

-  Green Belt
-  Existing settlements
-  Motorway
-  A Road
-  Railway line
-  Council boundary
-  River



Note: Locations are illustrative only and must not be taken to imply any specific development site or a preference for identified options

11. A wide range of views were expressed through the consultation. Broad support was indicated for one or a combination of both of the following options:
- 1) Protection of the Green Belt
 - 2) Transport Focussed.
12. Following the outcome of the consultation, further technical work has been undertaken to look at the range of locations across the West of England and test the merit of alternative approaches and scenarios. We have sought to draw out components of each of the options that people valued and have distilled those into a single draft emerging spatial strategy. A wider range of factors and issues including transport, sustainability, green belt, environmental, community building, place making, protecting valued landscapes and places have been considered. This has come together to produce a pragmatic, deliverable plan which overall produces a balanced strategy which best delivers the plan's objectives. This has been tested against the objectives of the Sustainability Appraisal and strategic modelling of the transport impacts as part of the Joint Transport Study. Topic Paper 1 sets out the full methodology for preparing the Spatial Strategy.

What happens now?

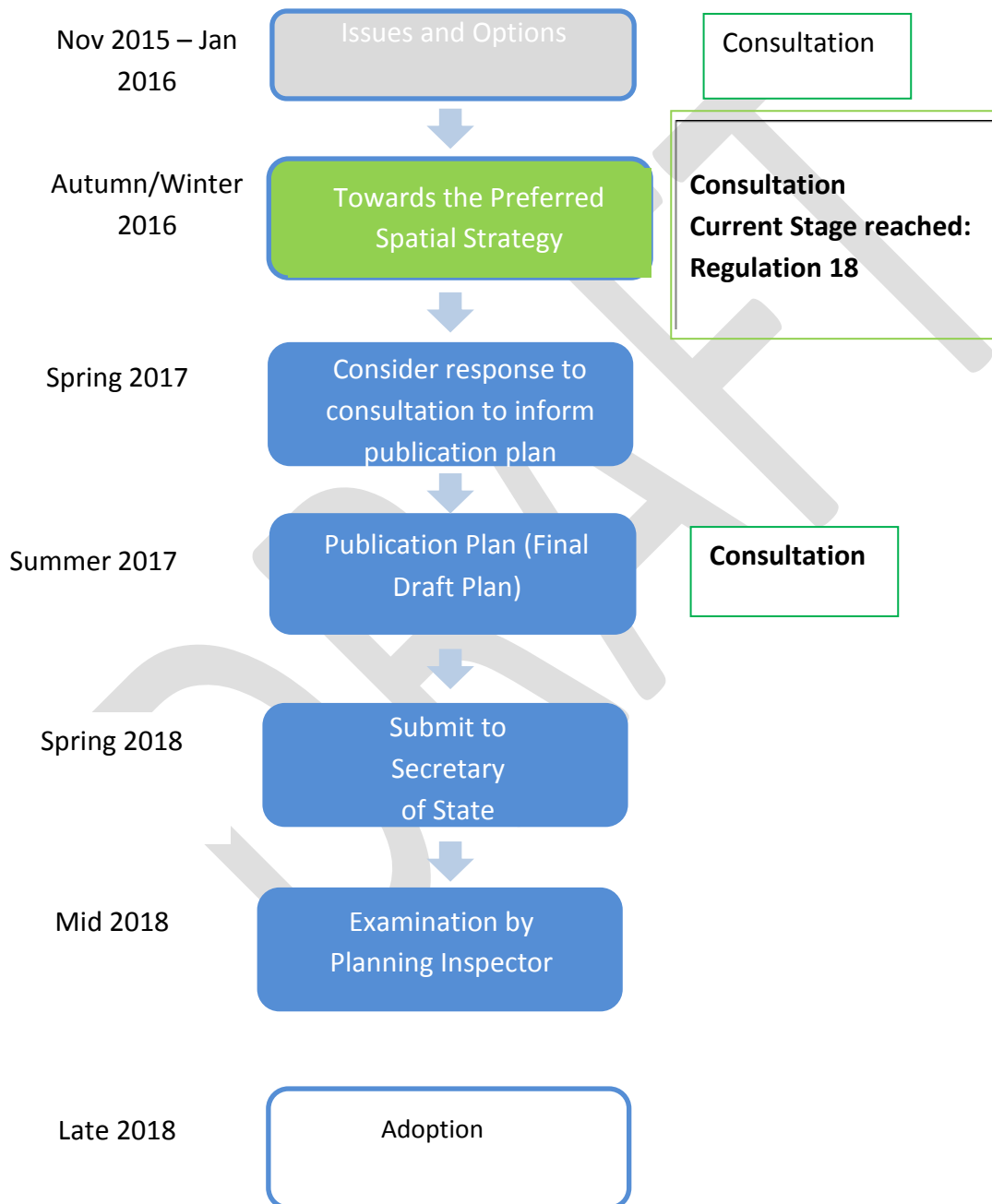
13. Before the plan preparation progresses to the publication plan (final draft plan), we want to seek people's views now on the emerging spatial strategy in this document. The strategy is not fixed and we recognise that further work is necessary including taking on board comments from this additional stage of consultation. The additional stage of consultation has been undertaken as it is critical to ensure everyone can have an opportunity to comment and help shape the emerging spatial scenario. This is particularly important as no alternative spatial strategy was put forward at the Issues and Options stage and we want to ensure that the opportunity is provided for alternatives to come forward.
14. This draft document on **Towards the Emerging Spatial Strategy** and supporting evidence is open to consultation between 7th November and 16th December 2016. This consultation is being undertaken jointly with the consultation on the Joint Transport Study, The work streams are closely linked and consultation responses will inform both the final draft of the plan and the transport vision in the joint transport study.

Preparing the final draft JSP and Timetable for the plan

15. The JSP is being prepared in accordance with the Planning and Compulsory Purchase Act 2004.

16. The plan is still at an early stage of plan preparation (Regulation 18). Before any final decisions are made a number of statutory stages involving public consultation need to be completed. These statutory stages and the timetable for when they will be completed are presented in Figure 1. The target is to submit the Joint Spatial Plan to the Secretary of state for examination by Spring 2018 with examination later that year. Milestones leading up to these dates are set out below:

Figure 1: Timetable



Vision and Objectives

17. The West of England Joint Spatial Plan vision is consistent with national policy, and stems from the critical issues identified and the WoE LEP Strategic Economic Plan (SEP) economic vision for the sub-region to 2036. The economic vision has been augmented to reflect social and environmental aspirations. The proposed vision for the JSP has public support as demonstrated by 71% of respondents to the public consultation in 2015.

Proposed Vision for the West of England Joint Spatial Plan

By 2036 the WoE will be one of Europe's fastest growing and most prosperous city regions with the gap between disadvantaged and other communities closed and a rising quality of life for all. The rich and diverse environmental character will be integral to health and economic prosperity. Patterns of development and transport will facilitate healthy and sustainable lifestyles. Existing and new communities will be well integrated, attractive and desirable places and supported by the necessary infrastructure. New development will be designed to be resilient to, and reduce the impacts of climate change.

18. A complementary vision has also been developed to specifically guide the preparation of the Joint Transport Study. This vision seeks an affordable, low carbon, accessible, integrated and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities.

19. There are four overarching priorities guiding the preparation of the spatial strategy in order to respond to the critical issues facing the West of England and ensure that the strategy is founded on sustainable development principles

Strategic Priorities

1. Economic: To identify and meet the need for housing and accommodate the economic growth objectives of the LEP Strategic Economic Plan

2. Social: To ensure that the JSP benefits all sections of our communities

3. Environment : To protect and enhance the sub-region's diverse and high quality environment and ensuring resilience including through protection against flood risk.

4. Infrastructure: To ensure a spatial strategy where new development is properly aligned with infrastructure.

There are **spatial implications** for the spatial strategy arising from the four strategic priorities:

Spatial implications of the strategic priorities:

1. Economic rebalancing to help address inequality, improve accessibility to jobs, support economic growth, and address unsustainable commuting patterns by aligning jobs and homes
2. Sufficient land should be identified to meet the needs of development including:
 - Deliver the housing needed at a range of sustainable locations
 - Facilitate economic growth of both existing employment centres such as the Enterprise Zones and Enterprise Areas and in new locations which will most successfully deliver the appropriate scale and type of jobs and contribution to the West of England economy.
 - Recognise the need for affordable housing delivery in accessible locations close to employment centres and other services and close to where the need arises.
3. Retention of the overall function of the Bristol & Bath Green Belt as set out in the NPPF.
4. The environmental quality of the West of England is maintained and enhanced by
 - Planning positively to ensure that development encourages and does not restrict the benefits the natural environment can provide.
 - Ensuring no net loss to biodiversity and enhancing ecosystem service provision
 - To develop a more resilient environment to help tackle the challenges of future climate change.
5. Strategic development should be in locations which maximise the potential to reduce the need to travel or where travel is necessary, maximise opportunities to travel by sustainable, non-car modes, especially walking and cycling. The focus of new transport infrastructure should address both existing challenges and create capacity for sustainable growth. Or be in places accessible to existing or new high quality public transport links.

Reviewing the evidence base

20. The National Planning Policy Framework (NPPF) requires local plans to prepare a strategic housing market assessment (SHMA) to have a clear understanding of the needs of their area. In the West of England two Housing Market Areas have been identified, a Wider Bristol Housing Market Area and a Bath Housing Market Area.

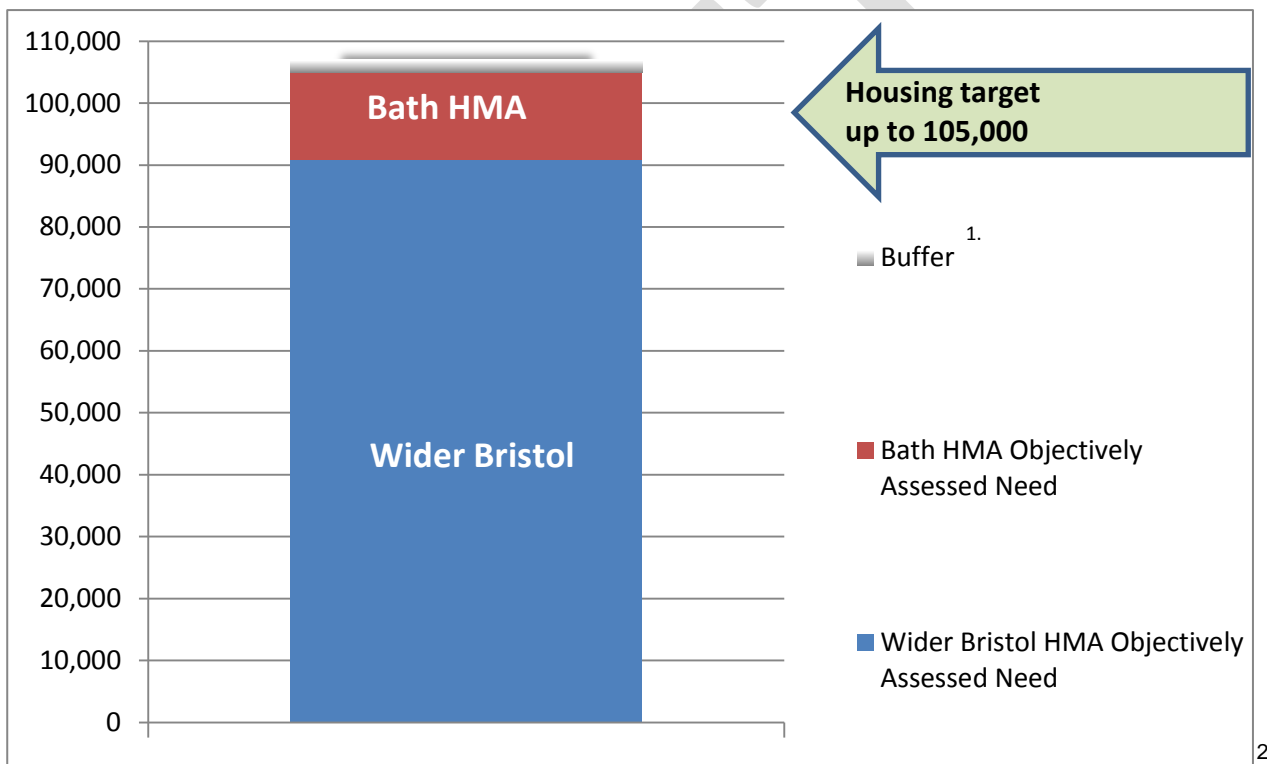
The Issues and Options consultation proposed that the JSP was based on meeting the needs of the Bristol Housing Market area but delivered across the West of England (including potential sites within the Bath Housing Market Area). Following representations received the evidence base has been reviewed. **The JSP will plan to meet the needs arising from both the Bristol and the Bath housing market areas to 2036.** The Bath SHMA has been updated to provide consistent information to 2036. The wider Bristol SHMA has been updated and now takes account of the

representations received to the Issues and Options consultation. The Objectively Assessed need (OAN) for the wider Bristol HMA was at that time defined as 85,000 the OAN for both housing market areas is now 97,800, with a housing need of up to 102,200. A Topic paper on the Housing Target sets out the approach and evidence to formulating the housing target.

21. The JSP will provide the framework to deliver **up to 105,000¹** net additional new homes between 2016 and 2036 of which, around 32,200 (30%) should be affordable homes.

22. The housing target supports the planned job growth of 82,500 jobs for the period 2016-2036 (or 125,900 jobs between the period 2010-2036).

Figure 2 JSP Housing Target 2016-2036



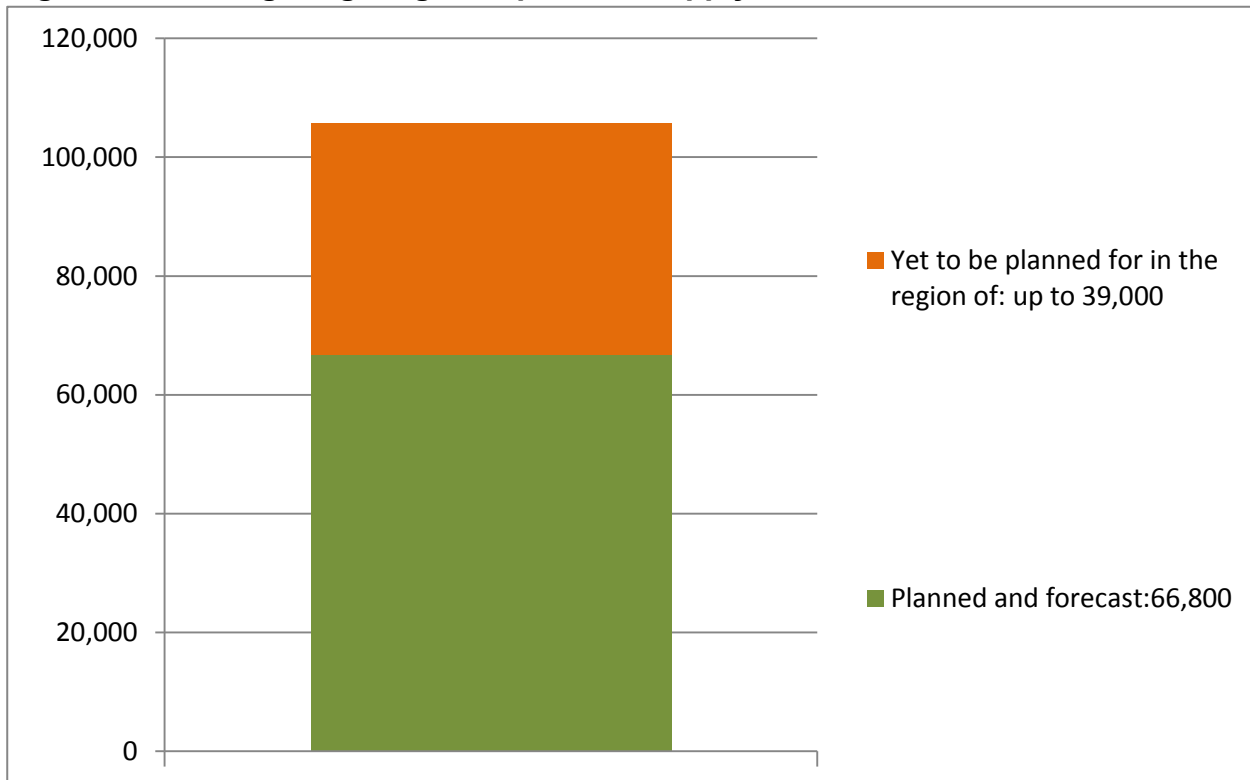
Planned supply

23. The four authorities' existing Core Strategies make provision for some 66,800 dwellings. This is predominantly on previously developed land (60.23%). There is supporting growth at towns, and villages and also several greenfield strategic locations in existing local plans. **When compared to the housing target figure identified there are up to 39,000 additional dwellings to 2036, that need to be planned for through the JSP spatial strategy.**

1

This includes a buffer of 2.5% which has been used to recognise that there is the potential for a small margin of error, given that some of the numbers are based on likely estimates and the final numbers will be finalised when the SHMA is updated in 2017.

Figure 3: Housing Target against planned supply



Affordable homes

24. The identified need for an additional 32,200 affordable homes takes into account a boost to the overall housing need to respond to the market signals in the West of England. Delivery against this need equates to 1,610 affordable homes each year, which is 30% of all homes planned over the 20 year plan period. This is in contrast to actual housing delivery, over the period 2006/07 to 2014/15 of:

- 36,279 new homes (market and affordable).
- 8,086 affordable homes (an annual average of 898 per year).
- This represents an affordable housing delivery rate of 22.5% of all homes.

25. Meeting the affordable housing need is recognised as a significant challenge and the Unitary Authorities have to consider whether the affordable housing need can be delivered .

26. The option of further increasing the overall market housing figure (above the boost already made) to bring forward more sites which in turn may deliver more affordable homes has been explored. However, not only is this unlikely to lead to the delivery of affordable housing to meet the need identified, an oversupply of market homes will create an imbalance in jobs and homes by drawing in additional workers resulting in increased levels of households in need. This would further inflate the number of homes needed and provide additional growth pressures on the transport network.

Hence this approach is contrary to providing a sustainable balanced strategy for growth and is likely to have a detrimental impact on wider principles of the Plan as well as destabilising the plans of adjoining Local Planning Authorities who are also promoting a plan led approach to planning for sustainable economic growth.

27. Challenges in delivering affordable housing to meet identified need are not unique to the West of England; the nature and scale of issues and policy landscape is national. There is a significant implementation gap between levels of need and planned numbers of affordable homes that can be realistically delivered by the development industry. It is recognised that the Unitary Authorities will need to work with partners and use other mechanisms as well as the planning system to maximise delivery of affordable homes needed.
28. On balance therefore it is clear that it is unrealistic and unsustainable for the Plan alone to meet the full amount of affordable housing identified. This is a judgement that has involved a careful balancing exercise that has taken into account all of the factors set out above.
29. It is recognised that other areas in the country have experienced the same issues and have instead set out what can be achieved through their respective Spatial Strategies.
30. It should be noted that if there is a review of the affordable housing definition in national planning policy to include Starter Homes, then the 32,200 affordable housing need would need reviewing. This is because many of the households who aspire to home ownership but cannot afford to buy market housing in the Plan area (those who may be eligible for Starter Homes) can afford to rent market housing. Therefore they are not counted within the affordable housing need of 32,200 dwellings (which is based on those who cannot afford to buy or rent at market rates in the market area).
31. In the absence of regulations explaining the introduction of Starter Homes in more detail the Authorities' technical assessment has assumed that 20% starter homes will apply on all the new strategic development locations as they come forward.
32. This means that traditional affordable homes (as currently defined in national and local policy) will make up the balance of the policy requirement. In practice, the % of traditional affordable housing should be higher if equivalent viability is maintained. However it is not possible to confirm this at this time. It is also unknown whether existing Core Strategy commitments could be impacted by the introduction of Starter Homes. Therefore current projections, taking into account the impact of starter homes on new strategic development locations, are that 17,100 traditional affordable homes can be delivered against the housing need of 32,200 (53%).

33. The assumption of 20% Starter Homes on new strategic development locations equates to the delivery of 7,740 homes, contributing towards the overall housing target.

34. **We are seeking views on this proposed approach to the emerging spatial strategy.**

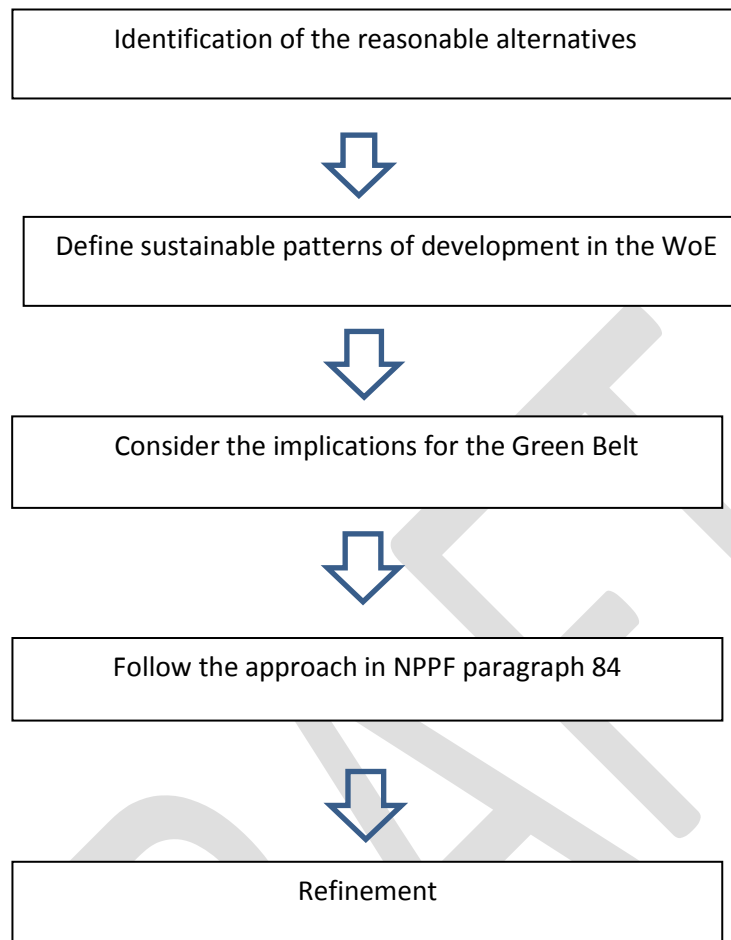
Summary of technical work on affordable homes delivered through the planning system	total number of homes	Traditional affordable housing (units) if starter homes introduced	Traditional affordable homes (%)
Sites that are existing planned commitments in Local Plans including future small windfalls	66,800	14,288	21.65%
New strategic and non strategic development locations	Up to 39,000 to be tested ³	2,783	7.19%
Total projected affordable housing delivery		17,071	16.30%
Proposed target	Up to 105,000		

2. Spatial Strategy

35. Further work was been undertaken to develop the spatial strategy. The methodology is set out in the Topic Paper on formulation of the emerging spatial strategy. In summary the process has involved the following 5 stages:

³ To meet target 38,200 required, indicative capacities being tested at locations are some 39,000

Figure 4: Approach to building the spatial strategy:



36. This has implications for the choice of strategic development locations (SDL's) as follows;

- a. Development within existing urban areas
- b. Development outside the Green Belt in close proximity or well related in sustainable transport terms to existing urban centres, especially to the south west and south east of Bristol and adjoining Weston-s-Mare
- c. Other sustainable towns and villages including freestanding settlements.
- d. If exceptional circumstances exist, consideration of the sustainability of Green Belt locations

37. An allowance is proposed to be made for 'non-strategic growth' to accommodate ongoing housing development in villages and towns which is needed to enable local communities to thrive. This allowance is for up to 1,000 dwellings each for Bath and North East Somerset, North Somerset, and South Gloucestershire and up to 400 for Bristol, together this totals 3,400 homes across the plan area. Detailed proposals are intended to be brought forward through each authorities local plan.

38. This approach recognises all aspects of sustainability including growth closest to the central areas and other parts of urban areas where people seek to travel for work,

shopping and recreational needs. Sustainability is closely related, but not entirely, to proximity. Other sustainability factors to meet the priorities of the plan also need to be considered including rebalancing economic growth, maintaining and enhancing the environment and retaining the overall function of the Green Belt. A balanced approach has been taken.

39. The current and anticipated future locations which are significant generators of trips are central Bristol, the existing communities of the Bristol North Fringe, central Bath/Bath Enterprise Zone and Weston-super-Mare. However, this approach which focusses on increasing existing urban development opportunities and expansion will not be sufficient to meet the homes and job needs of the Region over the next 20 years. Additional new sustainable locations will be needed which may include new approaches such as new neighbourhoods, or garden villages. The spatial strategy identifies locations for these, recognising their current proximity and access to central Bristol, Bath and Weston super-Mare and their potential to utilise existing and new transport corridor opportunities. Evidence shows that due to significant environmental constraints there is no scope to further expand Bath outwards.
40. Alongside this, it is also recognised that existing towns and larger villages have a role to play in supporting sustainable economic growth. Strategic opportunities have been identified where investment in high profile public transport will assist in delivering sustainable growth.
41. A sizeable proportion (48%) of the West of England is part of the Bristol-Bath Green Belt. This has significant implications for the spatial strategy, particularly reflecting the strategic priority to retain the overall function of the Green Belt. The advice in NPPF para 83 is *“Once established, Green Belt boundaries should only be altered in exceptional circumstances, through the preparation or review of the Local Plan. At that time, authorities should consider the Green Belt boundaries having regard to their intended permanence in the long term, so that they should be capable of enduring beyond the plan period.”*
42. Technical work and transport modelling show that it is not possible to sustainably accommodate the identified growth needs entirely outside the Green Belt. The transport impacts cannot be fully mitigated even with substantial investment. Such a strategy would be dependent on some highly unsustainable locations that are very difficult and expensive to mitigate with only sub-optimal solutions. It would also put pressure to locate development in the floodplain, and these issues would impact delivery of such a strategy.
43. In response to public consultation, the spatial strategy aims to minimise development within the Bristol and Bath Green Belt. However, due to the scale of provision required and the extensive nature of the Green Belt, the plan does include certain sites currently with Green Belt designation. Land is proposed to be released from the

Green Belt, south east of Bristol as explained in the Spatial Strategy methodology paper. There may be potential through the plan's preparation to explore whether areas could be included within the Green Belt to ensure no net loss of the overall green belt. There are no firm proposals at this time. Finally, the opportunity for a new free standing settlement has been explored. Through the Issues and options consultation a garden village of Buckover to the east of Thornbury was identified.

Urban Living (maximising the potential of urban areas)

44. Urban Living is a central plank of the Spatial Strategy, and commands a high degree of public support. The four UAs have carried out an assessment of the potential of existing urban areas to deliver land to meet development needs. In recent years a high proportion of new homes have been delivered on brownfield land in urban areas. This process has been aided by new approaches to urban density, and new thinking about the nature of liveable cities and towns and the trends in the type of accommodation we seek. It is recognised that the success will rely on the ability to plan effectively the use of all public services as part of this concept.
45. Further work undertaken has indicated that brownfield land in the future could deliver greater levels of development than in recent years. Bristol has delivered 45% of the new housing provision across the JSP plan area since 2006, much of it on previously developed land. In the Issues and Options document 10,000 homes were identified to come forward through urban living in Bristol (12,000 across the plan area). More recent evidence has identified that through maximising opportunities for development, this number could be increased to a potential for 12,000 homes to be delivered in Bristol (14,300 across the plan area). Opportunities for maximising the potential of existing land will result from:
- the change of use of non-residential brown field land to residential – where the previous use is no longer required or the most efficient use for the land
 - Identifying land which is currently underused and has potential for residential development
 - Identification of mechanisms to ensure more certainty over the delivery of large windfall sites.
 - Increasing the density of development:
 - on allocated sites by reappraising and increasing their development potential
 - on existing sites where the opportunity for redevelopment arises

Strategic Development Locations

46. Against the requirement of c39,000 additional dwellings, taking into account up to 14,300 that could be delivered through urban living **the remaining c24,400 additional new dwellings will be accommodated in a combination of the following two ways:**

- Majority through strategic development locations identified in the JSP (SDL's)
- Non strategic growth identified through individual Local Plans, (400 in Bristol, and up to 1,000 in each of the remaining 3 UAs, totalling some 3,400).

47. District apportionments in the final JSP will set the amount of growth to be accommodated.

48. Across the West of England economic locations are expected to deliver capacities to support c.658ha of employment land. With the enterprise zone and areas having capacity to support the provision of up to 78,400 jobs depending on end uses.

49. The Enterprise Zone and areas can contribute more than two thirds of the 82,500 jobs, a further third of employment will come through the needs of the increased population including; GPs, Shops, leisure uses.

Table 1: Strategic Locations and the rationale for inclusion in the emerging spatial strategy

Typology	Strategic location	Indicative number of dwellings	Rationale for inclusion in the emerging spatial strategy	Likely transport mitigations include
Urban Living	Bristol	12,000	Urban living - the potential of urban areas to accommodate new homes - is a central part of the emerging Spatial Strategy. It is consistent with the objectives for the strategy.	Ring of new and expanded Park & Rides around the Bristol urban area on the main corridors Walking/cycling package
	Bath	300	Urban living - the potential of urban areas to accommodate new homes - is a central part of the emerging Spatial Strategy. It is consistent with the objectives for the strategy. However, there are only limited additional opportunities above those currently identified in the B&NES Core Strategy & Placemaking Plan, particularly in light of the physical and environmental constraints which are a characteristic of the City	Conventional bus upgrading Walking/cycling packages in addition to infrastructure needed to support Core Strategy growth.
	Weston	1,000	Urban living - the potential of urban areas to accommodate new homes - is a central part of the emerging Spatial Strategy. It is consistent with the objectives for the strategy.	Weston rail improvements MetroBus Junction capacity improvements (inc M5 Jn 21)
	North and East Fringe (S.Glos)	1,300	Urban living - the potential of urban areas to accommodate new homes - is a central part of the emerging Spatial Strategy. It is consistent with the objectives for the strategy.	A420 P&R and MetroBus Walking/cycling packages Ring Road junction improvements
Outside the Green Belt proximity or	Nailsea/Backwell	Up to 3,600	Nailsea/Backwell is located on the outer edge of the Green Belt, physically close to Bristol	Station improvements MetroBus

<p>well related in sustainable transport terms to urban centres</p>			<p>and with strong economic links but it will require transport infrastructure investment such as metrobus to significantly improve connectivity and maximise opportunities for sustainable travel. Nailsea is a town where there is an existing objective to improve the mix and balance of housing and support existing and new services, jobs and facilities. Any growth needs to be carefully integrated to ensure that the existing services and facilities would help support the new development and benefit from the opportunities generated. Development is anticipated to take place generally to the west of Nailsea and Backwell which will bring significant challenges in terms of transport delivery, but avoids the Green Belt and principal flood zone areas.</p>	<p>Junction improvements (inc M5 jn 21) J20 to Nailsea new link</p>
	<p>M5 to A38 Transport Corridor</p>	<p>Up to 5,400</p>	<p>Development in this general location, possibly by a new garden village, provides the opportunity to significantly upgrade the transport infrastructure on this corridor as part of an overall objective of improving the A38 south of Bristol and improving connectivity for the Airport. This would target the A38 route to the south of the Airport, improving accessibility for economic development and access to new jobs to the south and east of Bristol. It creates potential improvements to M5 access at Weston, relieves pressure on A370 corridor and addresses long standing community impacts, notably a bypass to alleviate congestion in Banwell. As further growth at Weston is highly constrained by topography, flood plain and</p>	<p>Significant mitigations including P&R (A38/M5 jn 21) Junction improvements (inc M5 jn 21) Banwell bypass would need to be delivered in advance to support this location.</p>

			significant highway capacity issues, this provides an opportunity to provide future growth to meet Weston's needs, linked to the existing urban area by transport improvements.	
Other Town expansions/ new settlements	Thornbury	Up to 600	Additional development that consolidates / completes expansion to east of the town, appropriate to continue the revitalisation of the town centre and strengthen local services. Also provides additional opportunity for investment and provision of new local employment and will assist the case for Metrobus to improve access to BNF and Science Park.	P&R A38 MetroBus Junction improvements (inc M5 Jn 16)
	Charfield	Up to 1,000	Provides an opportunity to enhance the sustainability of a key settlement in the north of the district through growth supported by new services, facilities and employment opportunities. Charfield is situated on an existing live railway line. Whilst the station is currently closed any additional housing in this location could support a case for potentially reopening the station and rural bus improvements. Significant highway infrastructure may also be required. Also assists addressing housing needs / demand for new homes in north of the district.	P&R (A38) junction improvements (inc M5 junction 14)
	Buckover Garden Village	Up to 2,200	An opportunity has recently emerged beyond the Green Belt in SGC for a potential new garden village settlement (up to 3000 dwellings) located to the east of Thornbury. This location provides the opportunity to deliver the first locally led garden village for West of England in 21st Century. It could help the case for a step	

			<p>change in public transport to the locality, linking to Metrobus routes to enable access to the major employment centres of North Bristol. Significant highway infrastructure, including the strategic road network (M5) may also be required. It also potentially broadens the housing supply models in the sub-region via a single ownership with genuinely visionary approach to place making and land value capture. Alongside planned expansion at Charfield it would also provide the opportunity for the local communities in the north of the district to meet housing pressures in a planned sustainable way. Buckover is also a potential growth point for any future Oldbury NNB.</p>	
Locations within or partially within the Green Belt	SE Bristol Whitchurch	Up to 3,500	<p>Land south and east of Whitchurch Village performs relatively well in the sustainability appraisal because of its proximity to Bristol, and the choice of travel options available in this location. However, this location is only deliverable if substantial new sub-regional and local transport infrastructure is provided, focussing on public transport, including conventional bus service upgrading, new park & ride, and future Metrobus or rapid transit provision. Additional highways capacity would also be needed, to address underlying congestion issues, to provide access to new development and to release space for the public transport improvements. Housing capacity is constrained to about 3,500 dwellings to avoid causing unacceptable harm to nationally important heritage assets as well as retaining the Green Belt separation of Whitchurch Village</p>	<p>Walking & cycling package Conventional bus upgrading A37 new Park & Ride Orbital Metrobus linking Whitchurch/Hicks Gate/city centre A4-A37 new or improved orbital links (also facilitates Metrobus corridor) Whitchurch distributor road including connection to A4-A37</p>

			<p>from the Bristol Urban area. Whilst the location lies within the Green Belt and plays an important role in preventing urban sprawl, protecting the countryside and helping regeneration, the need to provide for strategic new growth, the relative sustainability of this location and its relative performance in Green Belt terms compared with other locations is evidence of the exceptional circumstances to release of this location from the Green Belt (see Topic Paper on the Spatial Strategy Methodology).</p>	
	<p>North & East Keynsham</p>	<p>Up to 1,100</p>	<p>This location performs well in the Sustainability Appraisal and will also be effective in helping to deliver the Plan's Strategic Priorities. Being a town expansion situated on a strategic transport corridor well related to Bath & Bristol it fits well with the spatial strategy methodology as set out in Topic Paper 5 Spatial Strategy Methodology. The proximity to central Bristol provides the opportunity to exploit both existing and potential new sustainable transport infrastructure including conventional bus corridors, Park & Ride, the Bristol to Bath Railway line, the Bristol-Bath cycleway, and future MetroBus or rapid transit. However, any development in this location is dependent on the timely provision of significant new transport measures to enable new growth and to mitigate existing congestion. This includes new road infrastructure where appropriate to serve the potential development area and ease pressure in the town</p>	<p>Walking & cycling package including NCN4 link Conventional bus upgrading A4 Park & Ride relocation and/or expansion A4 Metrobus terminating Keynsham/Saltford A4-A37 new or improved orbital links Callington Road Link (Bristol) Avon Mill Lane-A4 link including A4/B3116 junction and/or other A4 junction upgrading</p>

			<p>centre. Whilst part of this location lies outside the Green Belt, there are exceptional circumstances to justify removing the rest of the location from the Green Belt in light of its relative GB performance against other GB locations (see Topic Paper 5 on the Spatial Strategy Methodology). Development in this location will need to relate well to the existing settlement and take account of the views from the Cotswolds AONB. The capacity of the site is constrained by the floodplain and the need to respect the separate integrity of Keynsham and Saltford.</p>	
	<p>Yate strategic corridor (Yate/ Chipping Sodbury/)</p>	<p>Up to 2,600</p>	<p>Strategic Growth would consolidate longer term role as one of the principle market towns in the sub-region benefiting from existing accessibility & service provision as a significant urban centre, particularly area's accessibility by rail. Alongside Coalpit Heath growth would support investment into rail and Metrobus extension along the A432 Badminton Road, improving access to Bristol City Centre, the Bristol North Fringe, Science Park and Emersons Green Enterprise Area. Long-term phased greenfield development would also support investment in regeneration and the town centres and improving the range and type of jobs and help to unlock potential brownfield development at the western gateway.</p>	<p>Station improvements MetroBus P&R Pinchpoint schemes and junction improvements Coalpit Heath distributor road</p>
	<p>Coalpit Heath.</p>	<p>Up to 1,500</p>	<p>Coalpit Heath offers close proximity to the BNF, Science Park and Emersons Green Enterprise Area. Strategic development along the A432 Badminton Road, in combination</p>	<p>MetroBus P&R Pinchpoint schemes and junction improvements</p>

			with further growth at Yate / Chipping Sodbury would support investment into rail at Yate and Metrobus. It would also support existing and provide new services / facilities and employment opportunities in the locality.	Coalpit Heath distributor road
Total of strategic Development Locations		Up to 36,100		
Non strategic Growth		Up to 3,400	Development of up to 1,000 dwellings at each UA to accommodate on-going housing development in villages and towns which is needed to enable local communities to thrive. Development of up to 400 dwellings at the SW Bristol part of Ashton Vale that lies within the City boundary and is inside the South Bristol Link Road and makes only a limited contribution to the Green Belt compared to other GB locations. Given 400 units, it is not strategic in size, but would contribute to non-strategic growth within Bristol.	
Total		Up to 39,900		

Table 2: Locations considered and not put forward for inclusion in the emerging spatial strategy

Yatton	Yatton is a very constrained location in terms of transport, flood risk, ecology and transport. The location was tested through the transport modelling and performed poorly as highway trips would have a disproportionate impact on the network as a result of long distances to all destinations and would require expensive mitigation—river and rail crossing. Surrounded by low lying land at risk of flooding.
Long Ashton	The principal area of potential development to the south is separated from Long Ashton by the railway and is difficult to integrate into the existing settlement because of severance issues. It is a sensitive part of the Green Belt valued by the local community. Long Ashton is relatively close to Bristol, so there is an opportunity to maximise cycling and use of metro bus. There are also existing transport constraints relating to Cumberland Basin congestion and M5 J19.
Portishead	Portishead is a very constrained location in terms of transport, Green Belt, flooding and ecology. Whilst there is opportunity afforded by Portishead line rail re-opening, there are major capacity constraints at M5 J19.
Easton-in-Gordano/Pill	Easton-in-Gordano is a very constrained location in terms of transport, Green Belt, heritage, landscape and ecology. Whilst there is opportunity afforded by the Portishead line rail re-opening, there are major capacity constraints at M5 J19.
Clevedon	Clevedon is very constrained in terms of flood risk to the south and east and topography and landscape to the north. The levels landscape is also particularly sensitive both for its own characteristic value and ecological contribution as well as potential for adverse ecological impacts on the coastal habitat to the south of Clevedon. Any new development to the east of M5 would be physically separated from the existing town. Strategic development was also shown to be quite problematic in transport terms in this location with additional trips on the M5 and contributing to congestion on more localised routes.
<i>NW Saltford</i>	This location does not make the threshold for strategic development location. However, it has potential as a non strategic growth location to be explored through the review of the B&NES Core Strategy. The location lies within the Green Belt

<i>West & South West Keynsham</i>	This location does not perform well in the Sustainability Appraisal. It would be difficult and costly to mitigate the negative impacts of development in this location. The location lies within the Green Belt
<i>SE Keynsham</i>	This location does not perform well in the Sustainability Appraisal. It would be difficult and costly to mitigate the negative impacts of development in this location. The location lies within the Green Belt
<i>SW Saltford</i>	This location does not perform well in the Sustainability Appraisal. It would be difficult and costly to mitigate the negative impacts of development in this location. The location lies within the Green Belt
<i>Somer Valley</i>	The Somer Valley is one of the least sustainable locations in the sub-region for accommodating strategic housing growth. There is already a substantial imbalance in the number of workers who reside in the town and the employment available and this will be exacerbated in light of existing residential commitments. It has also proved difficult to attract new employment to the area and jobs have been steadily eroded over recent years. Therefore, strategic new housing growth will inevitably lead to substantial out commuting. Transport modelling shows that seeking to mitigate this will be difficult, costly and only partially effective. The purpose of the new Enterprise Zone is to facilitate employment generation to help mitigate the existing high levels of out-commuting.
<i>Clutton and Temple Cloud</i>	Sites in Clutton & Temple Cloud do not perform well as sustainable locations for accommodating strategic housing growth in the sub-region. The majority of new residents are highly likely to seek to travel by car to work and other activities. Transport modelling shows that seeking to mitigate this will be difficult, costly and only partially effective.
<i>West of Twerton, Bath</i>	Based on the SA the significance impact that development of this scale and this location would have on World Heritage site and its setting has led to this full site not being considered as a reasonable option. The severity of harm caused by development in this location would significantly outweigh the benefits. It would cause significant harm to the setting of the WHS and whilst it is not in the AONB, it is on the edge of Bath and is visually prominent, thereby causing harm to the AONB. As such development would contradict national policy. It also performs very strongly in Green Belt terms. Therefore this location is not suitable for development in the plan period.
<i>SE Bristol Hicks Gate</i>	Whilst this location performs well in the Sustainability Appraisal, and would be effective in helping to deliver the Plan's Strategic Priorities, it lies in a very sensitive part of the Bristol and Bath Green Belt which makes a major

	contribution to preventing the merger of Bristol and Keynsham.
<i>Ashton Vale</i>	The Green Belt at Ashton Vale (outside the South Bristol Link) makes a major contribution to Green Belt purposes. It is an area of attractive countryside and a sensitive landscape in relation to, in particular, Ashton Court and Dundry Hill and has ecological importance. It provides the landscape setting to Bristol and for rural communities within North Somerset and plays a significant role in protecting the countryside from encroachment of development. Protecting high quality environment is a priority of the plan. The location was tested through the transport modelling and performed well in terms of potential accessibility by non-car modes given its proximity to Bristol. There are also existing transport constraints relating to M5 J19.
<i>Kingswood/ Warmley</i>	Some 13,500 dwellings also remain to be constructed on land allocated in the South Gloucestershire Local Plan & Core Strategy across the Bristol North & North East Fringe communities over the next 10-15 years. Further strategic growth in the locality is likely to undermine delivery of these key sites. Moreover Bristol has historically predominantly grown north & eastwards. Strategic growth in the locality towards and also up the escarpments would significantly add to the impression of sprawl undermining the objectives of the Greenbelt. Notwithstanding this, significant growth will severely exacerbate congestion and air quality issues along the A420 corridor into Bristol. Road space along the A420 is significantly constrained by the nature of built form limiting the potential for necessary substantive strategic public transport, walking and cycling interventions along it. The locality is also poorly related to major areas of employment. Strategic growth would also further divorce existing communities to the west from physical and visual access to the countryside and potentially impact on Siston Conservation Area, Siston Lane and Webbs Heath areas of landscape value as well as local ecological interests.
<i>North of M4/M5</i>	Some 13,500 dwellings also remain to be constructed on land allocated in the South Gloucestershire Local Plan & Core Strategy across the Bristol North & North East Fringe communities over the next 10-15 years. Further strategic growth in the locality is likely to undermine delivery of these key sites. Moreover Bristol has historically predominantly grown north & eastwards. Strategic growth in the locality would also therefore significantly add to the impression of sprawl significantly undermining the objectives of the Greenbelt. Notwithstanding this, although the locality is in close proximity to existing strategic employment locations the location lacks good connections. Strategic growth would be severed from the existing urban area by the motorway therefore limiting options in terms of new connections. Strategic growth would therefore have a severe impact on Hortham village and J16 being in such close proximity. Strategic growth would also divorce existing communities from access to the countryside and maturing recreational opportunities, important to

	support existing residential and employment areas in the north Bristol fringe.
<i>Pucklechurch & M4 to Shortwood</i>	Some 13,500 dwellings also remain to be constructed on land allocated in the South Gloucestershire Local Plan & Core Strategy across the Bristol North & North East Fringe communities over the next 10-15 years. Further strategic growth in the locality is likely to undermine delivery of these key sites. Moreover similar to significant growth at Kingswood/Warmley, strategic growth will severely exacerbate congestion and air quality issues along radial routes into Bristol, where road space is significantly constrained by the nature of built form so limiting the potential for necessary substantive strategic public transport, walking and cycling interventions. The locality is also less well related to major areas of employment than proposed growth points at Yate & Coalpit Heath. Strategic growth would also further divorce existing communities from physical and visual access to the countryside and potentially impact on Siston Conservation Area. Development between Pucklechurch and the East Fringe is also highly constrained by its topography, ecological and archaeological interests. Significant development in the locality up these escarpments would thus significantly add to the impression of sprawl and separation in the locality undermining the objectives of the Greenbelt. Pucklechurch itself may have potential for some non-strategic growth to support local services. To be considered through the Local Plan process.
<i>Olveston</i>	Olveston is surrounded by high quality landscape, ecological and heritage assets. Access is along 'lanes'. This village is not considered suitable for strategic level growth but may have potential for some non-strategic growth to support local services. To be considered through the Local Plan process.
<i>Wickwar</i>	Major strategic growth is not considered appropriate due to areas of important landscape, heritage and ecological value to the north, northwest and east. The village is also less well related to major areas of employment than proposed growth points at Yate & Coalpit Heath. Strategic growth would be car based with limited opportunity to improve public transport options, thereby also impacting on other settlements on route to higher order localities and the strategic transport network. However the village may have potential for some non-strategic growth to support local services. To be considered through the Local Plan process.
<i>Alveston</i>	Major strategic growth is not considered appropriate due to areas of particular landscape and heritage value to the north, northeast and west. The A38 would sever development to the southeast from the village. Development to the north would also compromise separation from Thornbury undermining green belt objectives. The settlement / locality is therefore not considered suitable for strategic level growth but may have potential for some non-strategic growth to support local services. To be considered through the Local Plan

	process.
<i>Almondsbury</i>	Some 13,500 dwellings also remain to be constructed on land allocated in the South Gloucestershire Local Plan & Core Strategy across the Bristol North & North East Fringe communities over the next 10-15 years. Further strategic growth in the locality is likely to undermine delivery of these key sites. Moreover major strategic growth is not considered appropriate due to the village being constrained by noise, pylons, solar park and proposed air ambulance site to its south / southeast and high landscape value / slopes towards the Severn Vale to its northwest. Similar to land north of M4/M5, strategic growth would also have a severe impact on Hortham village and J16, being in such close proximity. Bristol has also historically predominantly grown north & eastwards. Strategic growth would thus also significantly add to the impression of sprawl in the locality significantly undermining the objectives of the Greenbelt. Therefore, the settlement/locality is not considered suitable for strategic level growth but may have potential for some non-strategic growth to support local services. To be considered through the Local Plan process.
<i>Longwell Green</i>	Land at Longwell Green essentially comprises slopes and hilltop with Hanham Abbots Conservation area to the south. This area is an important physical and visual asset with extensive views to and from it to surrounding urban areas. Strategic growth over this area would significantly add to the impression of sprawl undermining objectives of the greenbelt.
<i>Hambrook</i>	Some 13,500 dwellings also remain to be constructed on land allocated in the South Gloucestershire Local Plan & Core Strategy across the Bristol North & North East Fringe communities over the next 10-15 years. Further strategic growth in the locality is likely to undermine delivery of these key sites. Moreover the area is located between the M4 motorway and ring road, severing it from existing communities and suffering from noise and fumes. Hambrook village is also a conservation area with a number of heritage assets. The settlement / locality is therefore not considered suitable for strategic level growth but may have potential for some limited non-strategic growth to support local services. To be considered through the Local Plan process.
<i>Bridge Yate / Oldland Common</i>	The locality is characterised by the escarpment and ridgeline running along its length forming the 'natural' edge to the Bristol urban area. A pylon, abattoir and conservation area, archaeological and ecological interests are also present. The escarpments and ridgelines that frame / contain this part of Bristol East Fringe also protect the setting of the AONB. Bristol has also historically predominantly grown north & eastwards. Significant development in the locality up these escarpments would thus significantly add to the impression of sprawl in the locality undermining the objectives of the Greenbelt. Strategic growth would also further divorce existing

	<p>communities from physical and visual access to the countryside. Therefore, this locality is not considered suitable for strategic level growth but may have potential for some non-strategic growth to support local services. To be considered through the Local Plan process.</p>
<i>Sevenside</i>	<p>Comprising Sevenside employment areas, Severn Beach, Pilning and Easter Compton. The locality is characterised by the Severn Estuary and the Vale hinterland. With the exception of Easter Compton the locality is predominantly flood zone 3 and provides important habitats for birdlife and other wildlife (designations comprise RAMSAR, SPA, SAC & SSSIs). Strategic pylons and pipelines also intersect the locality. The Sevenside 1957/58 employment consent covers much of the area and remains to be completely built out. Therefore, the locality is not considered suitable for strategic level residential growth but may have potential for some limited non-strategic growth to support local services. To be considered through the Local Plan process.</p>

Likely mitigations and infrastructure required to support the emerging spatial strategy

50. Our transport network has an increasing volume of travel and complex travel patterns. This has contributed to a network that is often at capacity at peak times, with increased journey times and congestion. These impacts have been perceived as a barrier to securing sustainable economic growth. This threatens not only the productivity of our businesses and workforce but our ability to meet wider sustainable objectives such as reducing carbon emissions and improving air quality in our urban areas.
51. Transport investment can be a major influence on where development is located and how to create high quality places in which people want to live and work. Influencing the location of development will not of itself be sufficient to address the issue.
52. Integrating housing and employment development with investment in reliable, high quality transport choices will reduce the length and number of journeys to work, encourage more sustainable travel modes such as cycling, walking and public transport and reduce the reliance on car based journeys.
53. To support the additional development required as a result of the spatial strategy the approach to infrastructure provision seeks to:
- maximise the effectiveness of sustainable travel choices and encourage mode shift (to rail, MetroBus, Park & Ride, bus, cycling, walking) across the plan area.
 - maximise the effectiveness of non-car mode choices for both urban living and new development outside existing urban areas;
 - then, mitigate impacts of additional traffic, including investigation of junction capacity improvements, upgrades, new highway connections and traffic restrictions.

Encouraging mode shift across the plan area:

54. **MetroBus** will be central to delivering mode shift at strategic development locations, and along key corridors with a number of locations outside of walking/cycling distance from key attractors and less-well served by the conventional bus and rail networks;
55. **–A network of new Park & Ride and interchange schemes** will help to intercept trips on the edge of Bristol and Bath urban areas: reduce traffic in Bristol and Bath and improve conditions for walking, cycling and public transport;
56. **Conventional local bus services and in particular improving existing bus services** will be an important part of promoting sustainable travel on several corridors;

57. **Rail** will play an important role for access to urban centres, but improvements will be needed (capacity, access to stations, parking, station environment, interchanges) and it should be recognised that with a modest modal share, 2.1% of journeys to work in the 2011 Census, and despite impressive levels of passenger growth in recent years rail is just part of a wider package of transport measures. Some locations will remain difficult to serve by rail;

58. **Walking and cycling** must take a central role for shorter trips –better links to surrounding walking and cycling networks are assumed;

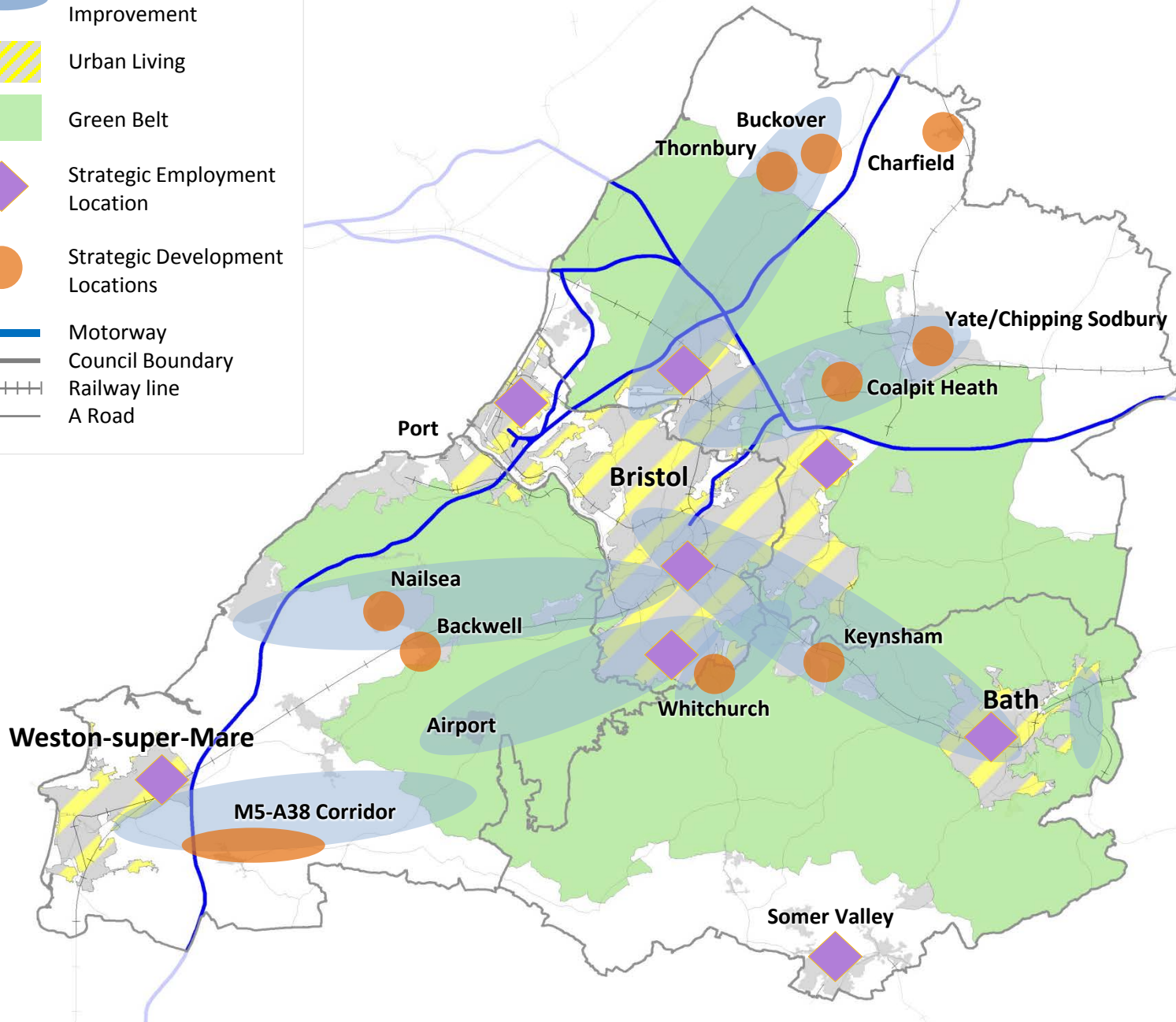
Supporting infrastructure for urban living:

59. There are limited opportunities for significant highway capacity improvements in the Bristol urban areas. Intensification will require a different approach to reduce traffic to create conditions for urban growth. This will:

- necessitate more walking, cycling and public transport within the urban areas.
- require intercepting traffic on radial routes into Bristol with Park & Ride, and other interchanges
- locate development around transit hubs,
- require re-allocating road-space to better promote sustainable travel choices on radial routes, potentially facilitated by improvements to orbital highway capacity in certain locations.

60. **Consultation on the Joint Transport Study will take place concurrently with the JSP consultation. Information about both the JSP and JTS consultation can be found at <https://www.jointplanningwofe.org.uk/>**

Figure 5: JSP Spatial Strategy Map: new development locations (incl employment locations).



Note: Locations symbols are illustrative only and must not be taken to imply any specific development sites.

Have your Say

We would like your views on the spatial strategy.

Do the spatial strategy and the locations identified meet the plan's objectives and vision?

Does the proposed strategy make adequate provision to address the housing needs of the West of England?

Is the Preferred Spatial Strategy the most appropriate strategy, when considered against the reasonable alternatives?

Are there any reasons why this strategy or identified locations could not be delivered?

Does the proposed strategy make adequate provision to address the economic and employment needs of the West of England?

DRAFT

West of England Transport Vision

Introduction

In 2015 the four West of England councils started a major study to shape the future of our transport network over the next twenty years.

We have been working together to develop proposals for a package of integrated public transport, walking, cycling and highway investment, to tackle congestion, improve air quality and promote more sustainable travel choices, and deliver housing and employment growth up to 2036.

This summary outlines our progress and recommended package of investment, and asks for your views. We will then take your views into account in a final recommendation on the schemes to be taken forward in an investment programme and investigate funding options for them.

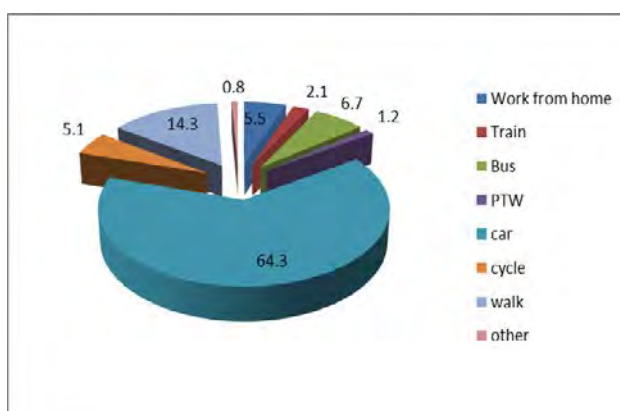
This consultation is taking place alongside a consultation on the Joint Spatial Plan (JSP). The JSP considers how future development up to 2036 should be managed. The JSP and our transport vision are closely linked and their joint impacts are discussed further below.

What are the Current and Future Challenges for our Transport Network?

The transport network in the West of England experiences significant traffic congestion, and for many people transport options to make their journeys can be very restricted, with the private car sometimes being the only viable choice to travel to work, shopping, school or college. This situation is reflected in the fact that 64% of us commute by car, which also reduces air quality in our towns and cities and affects our health, and restricts people's ability to access job opportunities, particularly for those of us living in less affluent areas.

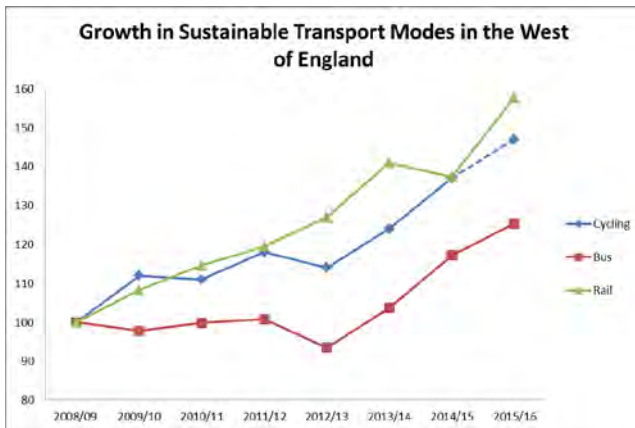
We need to turn this situation around, so that people no longer have to rely on driving a car to travel to work, and can make that trip by public transport, cycling or walking as their preferred choice. In particular, we would look to reduce our proportion of trips made by car substantially, and reduce the amount of time it takes to make journeys across our network.

West of England Commuting Proportions (%), 2011 Census



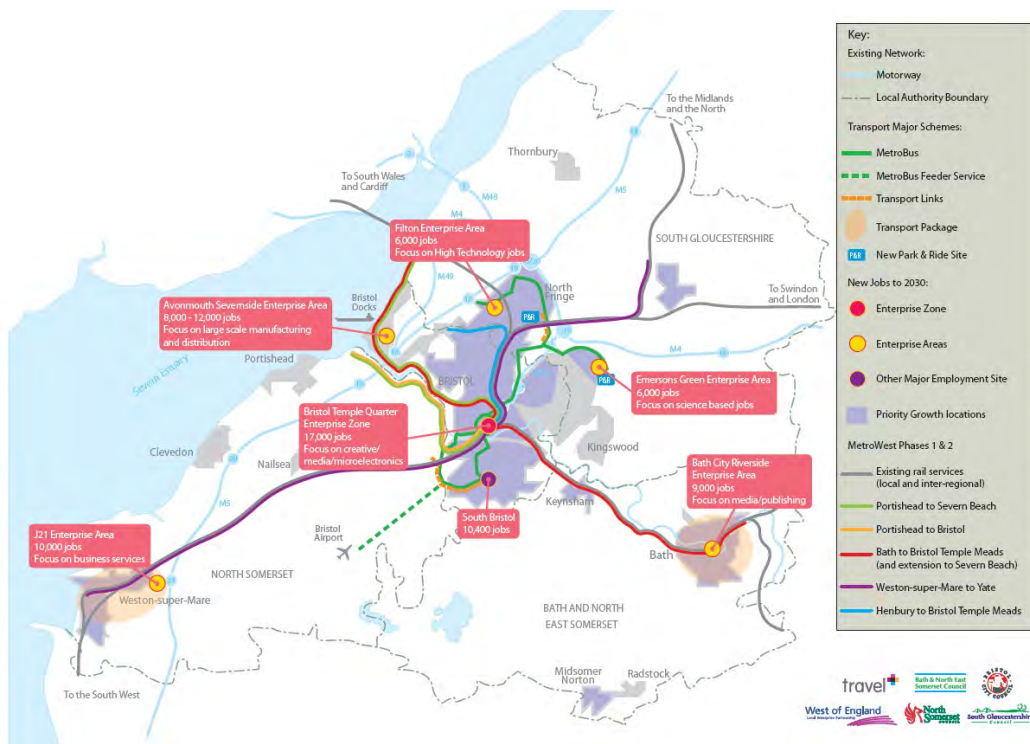
We are starting to make significant progress in encouraging sustainable transport choices. We have already delivered some major public transport improvements, such as the Greater Bristol Bus Network, Bath Package and Weston Package. In particular, cycling, bus passenger and rail passenger

numbers have all grown substantially as a result, and we travel by cycle and walking at a significantly higher rate than equivalent city regions like Birmingham, Leeds and Manchester.



Our strategic transport network, such as our motorways and railways, plays an important local, regional and national role, and its performance can have significant implications which affect the performance of the UK economy. This importance will be further emphasised through the need for connectivity to developments such as Hinckley Point and the southern coastal ports. Further improvements on the strategic network have also been completed, such as the M4/M5 'Smart Motorway' scheme (involving controlled use of the hard shoulder) by Highways England, and additional platform capacity at Bristol Parkway station by Network Rail. There are also significant proposals for redevelopment at Bristol Temple Meads station.

Moving forward, there is a clear programme of investment in further schemes, MetroBus and MetroWest (shown below), which are currently either under construction or are due to start construction in the next two years, with strong links to our enterprise zones and enterprise areas, as well as the electrification of the Great Western main line which is currently underway.



However, we still have a long way to go. The resilience of the strategic highway network is also vulnerable to incidents, which can have not just local but regional repercussions. Furthermore, many of our radial roads into the city centres struggle to provide for cars and goods vehicles, reliable public transport services and better cycling and pedestrian facilities.

The transport network also has a key role to play in supporting the continued economic growth and prosperity of the West of England. This means transport investment that better connects our key economic activity areas to enable us to remain competitive nationally and internationally. It also means supporting future growth in both housing and jobs, and will need to have a key role in improving the setting of our urban areas by reducing the impact of road traffic and promoting the use of sustainable transport modes. Some of this growth is already set out in the councils' local development plans which deal with development until 2026. Proposals for future development after this point to 2036 will be set out in the **Joint Spatial Plan (JSP)**, and both the JSP and transport vision are closely linked.

Our progress so far

In November 2015, we asked for your views on challenges facing the current transport network, and the sort of schemes you would like to see delivered.

You advised us that you were concerned, in particular, about congestion and quality of life. You also said that investment in public transport and cycling corridors was a particular priority.

Since then, we have been considering different options and working up transport schemes and packages that best deliver the transport objectives of the West of England area, taking on board your views from that consultation.

How ambitious should we be?

The West of England, on balance, is a net contributor to the HM Treasury. We need to plan for the future needs of one of the UK's fastest growing city regions, including supporting the delivery of new jobs and new homes by 2036. We need to improve connections across the West of England to ensure that our future economic growth is not compromised by congestion on our transport network.

We are proposing a £7.5 billion Transport Vision for delivery over the next twenty years. This represents the scale of intervention which is necessary to tackle traffic congestion and ensure that our future economic growth can be supported. The transport vision has a major focus on public transport investment, and we will need to identify new funding streams to help deliver this scale of investment.

How does the Transport Vision work?

The package is composed of a combination of investment in 'smarter choices' to promote walking, cycling and new technology to move around, alongside corridors of integrated, 'multi-modal' investment, to tackle congestion and promote a shift in trip making from the private car onto more sustainable transport modes. In particular, on some key transport corridors we are proposing to link highway and public transport investment together.

The suggested corridor packages would be delivered partly through a transfer of highway space on radial routes to public transport and cycling, and by partly providing better orbital connections so that traffic which does not have a local destination can be diverted onto more appropriate routes. This is intended to make the transport network more sustainable, by prioritising its use for more efficient travel modes. The picture below shows how sustainable transport modes can provide a more efficient use of restricted road space compared to private cars.



Restrictions on general traffic movement can be very challenging to deliver. The approach is not new - existing examples include The Centre in Bristol, Highwood Road in Patchway and Pulteney Bridge in Bath. In each case, through traffic is diverted elsewhere and space reallocated for public transport, cycling and walking. But it will be very challenging to deliver the next level of public transport and cycling investment without further radical schemes such as these.

What are our proposals for Cycling and Walking?

In line with our 'smarter choices' programme, we intend to progress the delivery of more strategic cycling and walking corridors with better infrastructure to support the use of these modes. In particular, the rollout of strategic cycling corridors is closely linked to better management of through traffic on radial roads. The diversion of through traffic movements frees up highway space for sustainable transport modes, as well as providing better conditions for cycling and walking due to the lower levels of car and lorry movements on the highway.

What are our proposals for 'Smarter Choices' and new technology?

There are a range of other important interventions and ways to influence people's travel behaviour which will continue to be delivered. These include information to help promote 'smarter choices' to encourage public transport, walking, cycling and car-sharing, as well as ongoing investment in smaller schemes such as walking and cycling networks and traffic management measures.

We are also taking account of a wide range of potential impacts of new technology on travel choices and behaviour. Future developments include electric vehicles, driverless cars, alternative fuels, on-demand public transport and wider use of the internet to facilitate 'home working' and shopping. Personal mobility could be increasingly less dependent on car ownership which may change the way transport is delivered. Some of these developments are likely to reduce the amount of trips made on

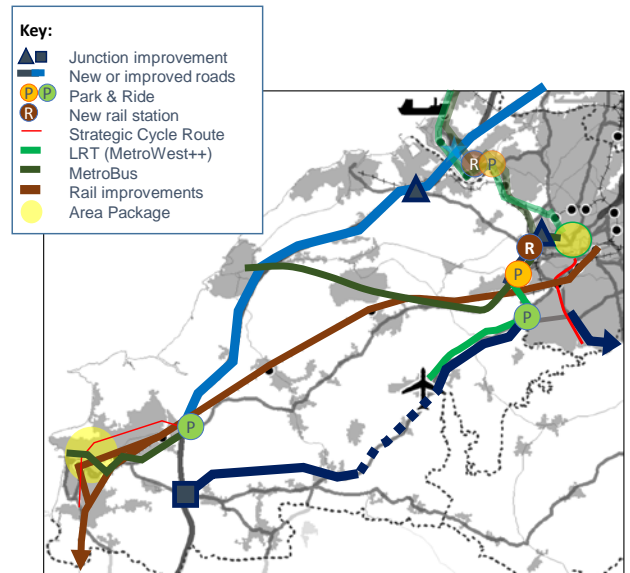
the network. However, whilst some developments will reduce the demand to travel, there are also background trends which demonstrate increasing demand to travel in other areas which also needs to be borne in mind.

What corridors are in the Transport Vision?

Weston-super-Mare to Bristol via A38

This corridor experiences severe congestion and this in turn restricts the role of Bristol Airport to accommodate future growth to serve the West of England and beyond.

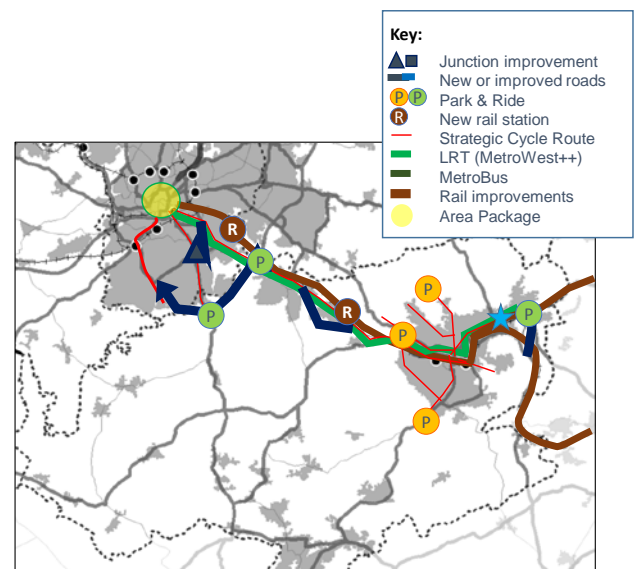
The extent of public transport and highway improvements on the A38 is closely linked to future growth at the Airport. Dependent on this growth, our proposals include a mass transit link between Bristol city centre and Bristol Airport, highway improvements and bypasses on the A38, a new motorway junction on the M5 and 'Smart Motorway' management, as well as further rail improvements such as higher frequencies and more seats for train passengers and more direct services from Weston-super-Mare to London. Highway improvements and bypasses on the A38 and A368/A371 will also relieve communities such as Banwell and Churchill of through traffic movements.



Bath to Bristol Corridor

This corridor has high travel demand across car, bus and rail modes. It also experiences severe congestion throughout the day, and access to and from South Bristol affects people's access to job opportunities, and restricts inward investment and economic regeneration.

We are proposing to introduce a Rapid Transit public transport corridor between Bath and Bristol, to complement improvements on the existing rail corridor, and provide for a wider range of trip options. This would possibly be bus-based but our ambition is for a light rail (tram) solution along the A4 corridor. This would be delivered as a package with highway investment including a Saltford Bypass, Callington Road Link and better links between the A4 and A37 roads. The highway schemes would provide new routes for through traffic enabling existing roads to be better used for Rapid Transit, public transport and cycling. Movements between the A4 and A37 could be either improvements to existing roads, new highway or a combination of the two.

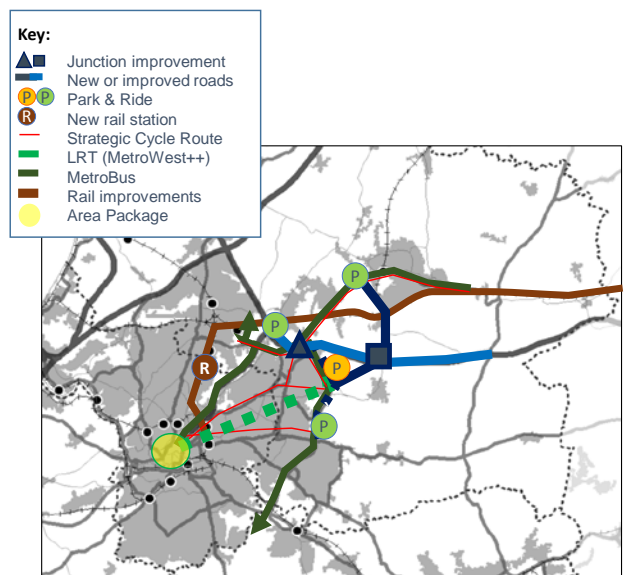


We are also proposing further park and ride sites to serve both Bath and Bristol, and a new road link between the A36 and A46 to the east of Bath, to help tackle congestion in this world heritage city, as well as possible further improvements on the A37 into Bristol from the south.

Yate and the East Fringe to Bristol

The sector of the urban area between the East Fringe and Bristol city centre is not well connected by public transport and experiences substantial traffic congestion, and consequent noise and air pollution problems. The delivery of MetroBus to Emersons Green and the continuing popularity of the Bristol to Bath railway path for cycling and walking will provide some relief but this whole sector has been identified by the study as needing further, significant investment in sustainable transport. The scope of this covers the full range of sustainable modes and looks broadly across the area.

We would like to know your views on what kind of interventions would be most appropriate to deliver this upgrade to sustainable travel between the East Fringe and Bristol city centre.

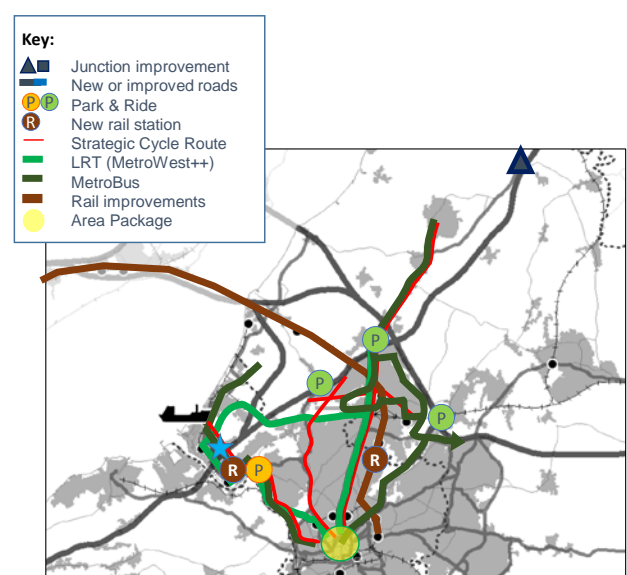


The Yate to Bristol corridor shares many of the issues and solutions for movements between the East Fringe and Bristol. We are proposing a package of highway and public transport schemes including a link to a new junction on the M4 from the A4174 Ring Road (along with smart motorway management), park and ride, a new road north from this junction to Yate, and a MetroBus extension to Yate from Bristol along the A432. The new road to Yate and the MetroBus extension form a package, with road space on the A432 prioritised for public transport and cycling.

North Fringe and Severnside to Bristol

These corridors link major employment and retail centres with the city centre, for both passengers and freight trips. We are proposing to implement rapid transit links, MetroBus extensions to Thornbury and cycling infrastructure, motorway junction improvements and park and ride sites to intercept trips towards Bristol from the local and strategic network, as well as local rail improvements and better rail connections between Bristol and South Wales.

Delivery of rapid transit between north-west Bristol and the city centre will, again, be challenging and require careful management of through traffic movements.



How ambitious should our `Rapid Transit' proposals be?

Whilst rapid transit can be delivered in the form of a bus-based mode, our ambition on some core routes is for a light rail (tram) mode where the potential is greatest for high passenger numbers. Corridors which have potential for a light rail mode are:

- East Fringe to Bristol city centre;
- North west Bristol to city centre;
- Avonmouth and Henbury loop;
- Bath to Bristol; and
- Airport to Bristol city centre (light rail or heavy rail).

There will be different options between street running and full segregation from road in order to deliver these. Rail-based rapid transit systems are more expensive than bus-based systems, but can be higher quality and achieve a greater level of patronage, particularly from passengers previously using a car to make that journey.

In addition, extensions to the MetroBus network are proposed to Nailsea, Thornbury and Yate, and a consolidation package to build on the benefits of the first MetroBus routes currently under construction will further improve bus lanes and renew signal junctions, particularly in the city centre.

`Tram-train' options (where trams run on railways rather than tram lines for part of their journey) have been investigated as a possible alternative on some of the core corridors highlighted. However, capacity on the rail network will be very constrained following the delivery of our MetroWest schemes, and adding further capacity to enable high frequency tram-train services could be very expensive. We will, however, continue to explore these options where possible.

What is proposed for local rail improvements?

Overall, further service enhancements and new stations are envisaged over and above those being delivered through MetroWest, including better links within the Avonmouth/Sevenside enterprise area. New rolling stock with increased capacity will also be required. Extensions to electrification are also possible. The redevelopment of Temple Meads station, whilst primarily promoting sustainable transport choices for trips to and from the station and surrounding area, also includes the return of rail services into the `passenger shed' to increase platform capacity.

What is proposed for local bus services and Park and Ride?

Most public transport passengers will be on the local bus network. The structure of the network will need to change to reflect the redevelopment of the Temple Meads Enterprise Zone, refocussing bus services to better serve this area including the Arena, and integrating more closely with better interchanges and rail and rapid transit services.

Local corridor improvements in the form of more bus lanes, new vehicles, better ticketing and information will follow the standard set through MetroBus, and be strongly linked to the growth in urban living within our main urban centres. We are also exploring whether new bus franchising powers or enhanced partnership arrangements that may be available to the authorities could help maximise the value of the network improvements for passengers.

The transport vision has an emphasis on a network of further park and ride sites on the core radial routes into Bristol, Bath and Weston-super-Mare. Further park and ride sites, with a wider network of services, are expected to reduce congestion on main roads and in urban centres, particularly where there are problems with air quality. The approach to Park and Ride is also strongly linked to bus and rapid transit routes, and the growth in urban living in Bristol, Bath and Weston-super-Mare, as it will help intercept car trips from further afield and enable capacity on radial routes to be prioritised for sustainable transport modes.

In addition, a Bristol city centre package aims to create better places and improve the reliability and resilience of the transport network in central Bristol. It includes a range of measures including: enhanced traffic management, increased bus priority, continuous safe cycle routes, and enhancements to the public realm.

What is proposed for strategic routes and freight movements?

The West of England’s strategic transport network is of both national and local importance with significant benefits for trips being made from further afield. We will look to improve these routes including better strategic rail services to a range of locations including Oxford, Birmingham and the South West. We are also keen to improve links to Hinckley Point and north-south road connections, and are working with neighbouring authorities to develop complementary schemes along the A350 corridor to the south coast.

The West of England is a major origin and destination for freight traffic, including Bristol Port. There are high freight volumes on the motorway network and other major routes, and significant increases in van traffic are also forecast. We are looking to tackle congestion which will also benefit freight movements, particularly to and from Bristol Port. We will support the provision of capacity improvements to help facilitate rail freight movements on the strategic network, including those enabled through electrification.

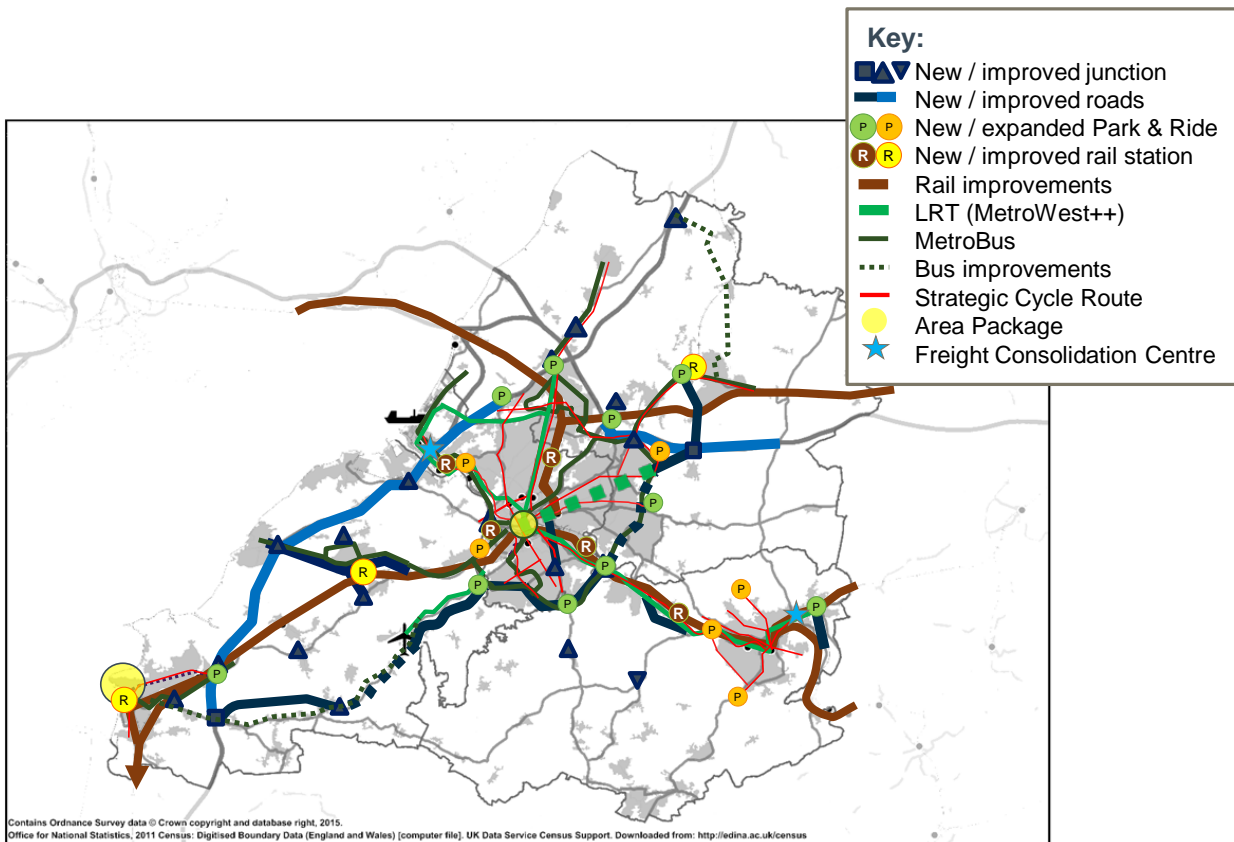
We are proposing to improve routing and management of freight movements in urban areas, with a particular emphasis on air quality, through investing in Freight Consolidation Centres for Bath and Bristol to offload goods outside the cities and transfer them to their destination by low emission or electric vehicles.

What does the Overall Investment Programme look like?

The total package is likely to cost at least twice as much as the West of England councils are currently spending on building transport schemes. The investment programme has a heavy emphasis on sustainable transport modes (incorporating smarter choice and technology changes), as shown in the accompanying breakdown. The link between public transport and complementary highways investment is also very important, as one links with and enables the other.

Walking/cycling	£0.4 billion
MetroBus	£1.0 billion
Light Rapid Transit	£2.5 billion
Rail	£1.0 billion
Highway	£2.6 billion
Total	£7.5 billion

The figure below shows the overall transport vision across all proposed travel modes, as well as those schemes which, whilst not addressing our current challenges, address the impact of the potential development locations outlined in the JSP.



Please note: the above figure is provisional - further testing is being undertaken and further changes may be made as a consequence.

How does this package relate to the Joint Spatial Plan?

We are also asking for views on the draft Joint Spatial Plan (JSP) as part of this joint consultation. The JSP sets out proposals for housing and employment development from 2026 to 2036. Whilst the Transport Vision has a focus on dealing with current challenges on the network as well as supporting long term economic growth, some of the schemes in the package (with a value of around £1.5 billion) also help address the impact of new trips being made to and from the JSP development locations. Subject to the results of the consultation, the councils will carefully plan how to ensure that investment programmes are prioritised, so that new development locations come forward at the same time as the transport schemes which help to address their impacts on the network.

The cost of addressing the transport impact of the JSP will need to be augmented by additional funding (either locally generated or from central government) to deliver the Transport Vision, to improve the performance of the network rather than just to maintain 'business as usual' in the light of housing and employment growth.

How will the Transport Vision be funded?

The West of England has tended to receive less money to spend on transport compared to most core cities in the UK. Our potential funding has increased significantly from what we might expect through our existing funding channels and by our devolution proposals in some areas. We will also be expecting some of the programme to be funded by our partners (including Highways England and Network Rail), as well as contributions from developers. However, our funding requirement is still much higher than that made available to date and we will need to lobby central government to highlight the need for and benefits of the package, both locally and for the national economy and national transport network.

We will also need to explore new funding sources and mechanisms. We need to target funding opportunities as they arise, with projects prioritised through a clear implementation programme, to enable economic growth whilst accommodating trips in a sustainable manner, including links with development locations and people's views expressed during the consultation.

There are opportunities for fiscal incentives and fiscal approaches to demand management to be considered at a local level. It is likely that the package will be more successful (and potentially quicker to deliver) if available funding for the package is boosted by additional revenue streams raised locally such as more extensive car parking charges, or other charging mechanisms. These could also reduce congestion and deliver better use of public transport, walking and cycling modes.

What happens next?

The consultation runs for six weeks until 19th December 2016. We will then take account of your comments and suggestions, and a final report and recommendations will be submitted to council members in Spring 2017. They will then decide how to update the Joint Local Transport Plan to take account of the study recommendations. Simultaneously, we will start the process of lobbying central government, with our strategic partners, to lever in the necessary funds to deliver the Transport Vision.

Questions:

1. Do you think we are seeking the right scale of ambition for the West of England transport vision?

No, strongly disagree no, disagree neither agree or disagree yes, agree yes, strongly agree

2. Do you think we are proposing the right mix of public transport investment (bus, rapid transit, park and ride and train)?

No, strongly disagree no, disagree neither agree or disagree yes, agree yes, strongly agree

3. To what extent do you agree with the principle of diverting non-local traffic, including onto new roads, to accommodate public transport and cycling schemes?

Strongly disagree disagree neither agree or disagree agree strongly agree

4. To what extent do you agree with the concept of a light rail (tram) solution on some rapid transit corridors?

Strongly disagree disagree neither agree or disagree agree strongly agree

5. To what extent do you agree with using fiscal incentives and fiscal demand management at a local level to raise funds to help pay for the transport vision?

Strongly disagree disagree neither agree or disagree agree strongly agree

6. What kind of schemes would be most appropriate to deliver an upgrade to sustainable travel between the East Fringe and Bristol city centre?

.....

7. Are there schemes which you do not agree with in the package?

.....

8. Are there any other schemes you would like to see in the package?

.....

9. If only one element of the strategy could be implemented, what would you choose?

.....

10. Do you have any other comments about the proposed transport vision?

.....

11. What was your main form of transport on your principal journey today?

.....

12. Please provide your post code.

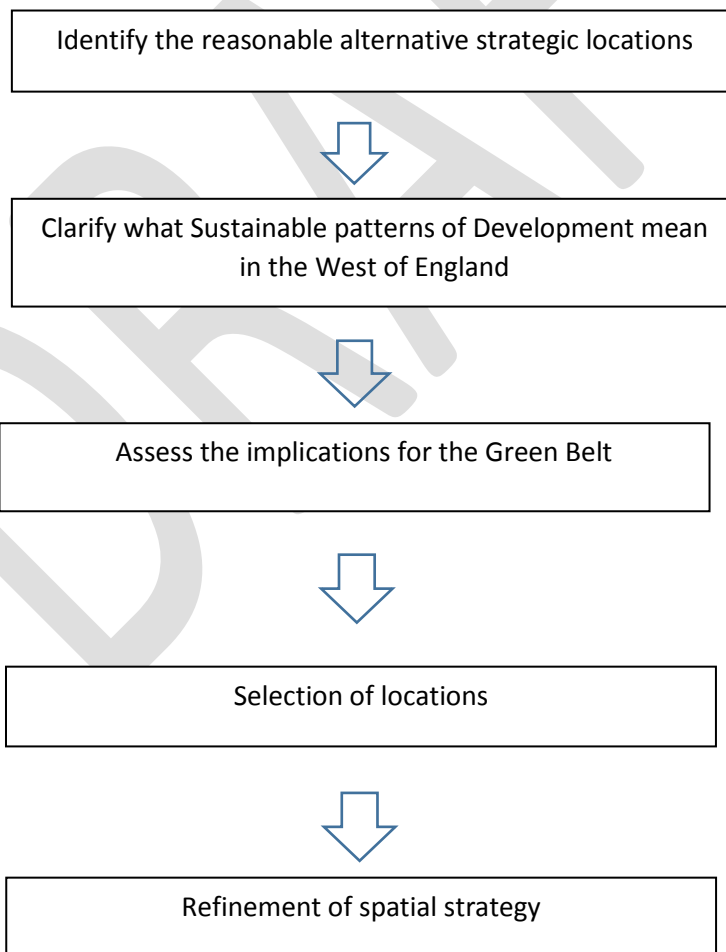
.....

WEST OF ENGLAND JOINT SPATIAL PLAN

TOPIC PAPER 1: THE FORMULATION OF THE EMERGING SPATIAL STRATEGY

INTRODUCTION

1. This paper explains the process undertaken by the West of England Unitary Authorities (UAs) to prepare the November 2016 emerging spatial strategy. Through the application of appropriate planning judgements this has been used to inform the sequential preference of strategic development locations (SDLs) as set out in the Strategy.
2. The Housing Target for the JSP is 105,000 dwellings for the period 2016 to 2036. Of this, around 66,800 is already identified in existing plans. This leaves about 38,200 dwellings to be found through the JSP.
3. In summary the process has involved the following 5 stages:



STAGE 1: IDENTIFY THE REASONABLE ALTERNATIVE STRATEGIC LOCATIONS

4. The 2015 Issues and Options document identified a schedule of strategic locations classified by broad spatial characteristics. This has been refined through further more detailed assessment of the identified locations as well as the consideration of new sites. The key outputs from the evidence base are:
 - a. an understanding of the urban capacity of existing towns and cities (Urban Living)
 - b. a range of Potential Development Areas (PDAs) have been identified. The suitability of these locations has been assessed in a consistent way across the Plan area. This assessment has considered a range of factors including flood risk, landscape, heritage, ecology, physical constraints.
4. An allowance has also been made for 'non-strategic growth' to accommodate on-going housing development in villages and towns which is needed to enable local communities to thrive. This allowance is for up to 1,000 dwellings each for Bath and North East Somerset, North Somerset, and South Gloucestershire, and around 400 for Bristol, totalling 3,400 dwellings. This leaves around 34,800 dwellings to be found via the JSP strategic development locations.
5. The evidence base identifies where there are significant constraints to development which are likely to affect delivery over the plan period. The assumption is that locations with a potential capacity of less than 500 dwellings are not considered to be strategic for the purposes of this plan. Some of the key conclusions emerging from this work are;

Flood risk
6. Significant parts of the plan area are located in low lying areas at risk from flooding. In order to locate development away from areas of highest risk, the plan excludes strategic sites within flood zone 3. (See UA SFRAs) An exceptions tests is required if locations in the flood zone are to be pursued. This has excluded much of Severnside and most locations at Clevedon, Weston Super Mare and Portishead.

Areas of Outstanding Natural Beauty
7. NPPF paras 115-116 states that great weight should be given to conserving landscape and scenic beauty in the Areas of Outstanding Natural Beauty and so no strategic locations have been identified.

Bath World Heritage Site
8. Bath is inscribed by UNESCO as a World Heritage site and this includes the setting of the City. There are no further opportunities for the outward expansion of Bath. These were investigated thoroughly through the preparation of the B&NES Core Strategy and have been reviewed in the context of the JSP. The outward expansion of Bath would have a significantly harmful impact on local, national and international environmental assets such as the World Heritage Site & its setting, the Cotswolds AONB and European Special Areas for Conservation (Bats). The severity of harm

caused by development in these locations would significantly outweigh the benefits. The city is also tightly bound by the Green Belt with most locations playing a very important role in GB terms.

9. The potential locations identified through this stage of the work are listed in Annex 1.

STAGE 2: CLARIFY SUSTAINABLE DEVELOPMENT IN THE WEST OF ENGLAND.

Sustainability Appraisal

10. Local Plans are the key to delivering sustainable development that reflects the vision and aspiration of local communities (NPPF 150). The plan-making process takes into account the Sustainability Appraisal of individual strategic locations, as well as the cumulative impacts of different scenarios, transport modelling, and the responses to the Issues & Options consultation. This has informed the understanding of sustainable patterns of development as this relates to the West of England.
11. The NPPF identifies three dimensions to sustainable development: economic; social and environmental. All three dimensions have been taken into account in the appraisal process and have been considered as mutually dependent as required by the NPPF. Sustainability is closely, but not entirely, related to location. Those locations which reduce the need travel and, where travel is necessary, facilitate travel by walking cycling or public transport, have wide ranging benefits. They facilitate carbon reduction and reduced pollution with associated environmental and health benefits; they encourage active travel modes which benefits health; they help to integrate existing and new communities to facilitate social integration. They have substantial economic benefits with reduced congestion and enable a supply of resident workers in accessible locations.

Strategic Priorities

12. In addition, the strategy needs to deliver the Plan's five overarching priorities in order to respond to the critical issues facing the West of England. The Strategic Priorities are reproduced below and how they respond to the critical issues is set out in Annex 2.
 - a. **Economic:** To accommodate the economic growth objectives of the LEP Strategic Economic Plan and identify sufficient land to meet the economic growth of both existing employment centres such as the Enterprise Zone/Areas and in new locations which will most successfully deliver appropriate scale and type of jobs
 - b. **Social:** To identify a sufficient supply of land meet the full need for housing and ensure that the JSP benefits all sections of the communities, in particular by boosting growth opportunities in the south of the sub-region in order to re-balance the economic benefits between the north and south of the WoE.

- c. **Infrastructure:** To ensure Infrastructure is aligned with development in a timely way and addresses existing challenges and creates capacity for sustainable growth. Strategic development should be in locations which maximise the potential to reduce the need to travel or where travel is necessary, maximise opportunities to travel by sustainable, non-car modes,
 - d. **Environment :** To protect and enhance the sub-region's diverse and valuable environment and ensure resilience,
 - e. **Green Belt:** Retention of the overall function of the Green Belt as set out in the NPPF.
13. Alongside this, the Joint Transport Study contributes some guiding principles for the preparation of a spatial strategy, from a transport perspective. These are that spatial options should;
 - take account of existing challenges on the transport network.
 - support shaping of an integrated transport system to improve sustainable travel choices, reliability, resilience and connectivity.
 - support development of an inclusive, accessible and affordable transport system.
 - not result in significant increases in traffic on sensitive urban or rural roads that cannot be mitigated through alternatives to the car.
 - if possible, integrate new transport infrastructure as an integral part of new development.
14. Based on the above, the broad spatial implications for the location of strategic growth locations in the West of England are as follows:
 - a. Maximising the sustainable capacity of existing urban areas, ensuring high quality places for existing and new residents
 - b. Development outside the Green Belt in close proximity or well related in sustainable transport terms to existing urban centres, especially to the south west and south east of Bristol and adjoining Weston-s-Mare
 - c. Other sustainable settlements
 - d. If exceptional circumstances exist to alter the Green Belt, to use the most sustainable locations

STAGE 3: ASSESS THE IMPLICATIONS FOR THE GREEN BELT

15. A sizeable proportion (48%) of the West of England is part of the Bristol-Bath Green Belt. This has significant implications for the spatial strategy, particularly reflecting the strategic priority to retain the overall function of the Green Belt. The advice in NPPF para 83 is *“Once established, Green Belt boundaries should only be altered in exceptional circumstances, through the preparation or review of the Local Plan. At that time, authorities should consider the Green Belt boundaries having regard to their intended permanence in the long term, so that they should be capable of enduring beyond the plan period.”*
16. The assessment of strategic locations and transport modelling show that it is not possible to sustainably accommodate all of the identified growth needs entirely outside the Green Belt. Such a strategy would be dependent on some highly unsustainable locations that are very difficult and expensive to mitigate with only sub-optimal solutions. It would also put pressure to locate development in the floodplain.
17. The other option would be to choose not to meet the housing and growth targets under NPPF para 14. However this would result in the identified housing needs of the sub-region being unmet which could have severe social implications, and inhibit economic growth. It is likely to lead to a dispersal of development to locations in adjoining districts which would need to be tested for their sustainability.
18. Therefore, the WoE UAs have come to the conclusion that the exceptional circumstances for altering the GB are demonstrated because of the overwhelming benefits in locating as much of the development as possible to the most sustainable locations and the substantial harm that would be caused on a strategic scale, of not doing so.

STAGE 4: SELECTION OF LOCATIONS

19. Having acknowledged the need to consider locations in the Green Belt, NPPF para 84 provides further advice in identifying locations;

“When drawing up or reviewing Green Belt boundaries local planning authorities should take account of the need to promote sustainable patterns of development. They should consider the consequences for sustainable development of channelling development towards urban areas inside the Green Belt boundary, towards towns and villages inset within the Green Belt or towards locations beyond the outer Green Belt boundary.”

20. Therefore, in light of the conclusions reached above, in applying this to the local context the spatial hierarchy for accommodating the outstanding 34,800 dwellings at strategic development locations is as follows;

- *urban areas, both inside and beyond the Green Belt boundary:* ie Urban intensification in Bristol, Bath and Weston Super Mare.
- *towns and villages inset within the Green Belt or locations beyond the outer Green Belt boundary:* ie good transport corridors, especially those well related to southern Bristol. (NB some of these include GB land & so exceptional circumstances are included in the paper)
- Other sustainable locations including those well related to Weston-s-Mare
- If GB locations are still required to meet the housing target, prioritise those which are the most sustainable, which deliver the plan’s strategic priorities and best address the Transport guiding principles

A: Urban Living: channelling development at urban areas inside and beyond the Green Belt boundary

21. The urban areas should be the primary focus of the development requirements, but in a way which ensures a high quality of life for existing and new residents. In recent years a high proportion of new homes have been delivered on brownfield land in urban areas. Further urban intensification will need to build on new approaches to urban density, and new thinking about the nature of liveable cities and towns and the trends in the type of accommodation we seek.

22. The evidence shows that, in addition to existing commitments, the urban areas have the capacity to accommodate further growth. Opportunities for maximising the potential of existing land will result from:

- the change of use of non-residential brown field land to residential
- underused land which has potential for residential development
- mechanisms to ensure more certainty over the delivery of large windfall sites.
- Higher densities:
- Reappraisal of allocated sites to increase their potential.

23. This will make a substantial contribution to meeting the JSP housing need as follows;

District	Existing Core Strategy commitments & windfalls post 2026 & 2029	Urban Living	Total
B&NES	10,100	300	10,400
Bristol	20,300	12,000	32,300
SGC	22,400	1,300	23,700
NSC	14,000	1,000	15,000
TOTAL	66,800	14,600	81,400

24. Urban intensification yields a total of 14,600 additional dwellings to find.

B: Development in locations with sustainable access to existing urban areas, including Green Belt inset settlements:

25. There are a number of settlements in the Plan area which meet the requirements of this category, either as settlements excluded from the Green Belt under NPPF para 86 (insets) or locations beyond the outer Green Belt boundary (NPPF para 84). The key requirement is for the settlements to have sustainable access to the urban areas of Bristol, Bath and Weston-S Mare. Locations with sustainable access to southern parts of Bristol and to Weston-super-Mare are a particular priority in light of the 'strategic rebalancing' priority.

26. The underlying objective is to avoid Green Belt locations as far as possible but because some of the most sustainable locations at these places lie partly within the Green Belt and because the exceptional circumstances to alter Green Belt have already been established, these proposals will require the Green Belt to be amended in three locations: Keynsham, Coalpit Heath and Yate/Sodbury.

Nailsea/Backwell (up to 3,600 dwellings)

27. Nailsea/Backwell is located on the outer edge of the Green Belt, physically close to Bristol and with strong economic links but will require transport infrastructure investment such as metrobus to significantly improve connectivity and maximise opportunities for sustainable travel. Nailsea is a town where there is an existing objective to improve the mix and balance of housing and support existing and new services, jobs and facilities. Any growth needs to be carefully integrated to ensure that the existing services and facilities would help support the new development and benefit from the opportunities generated. Development is anticipated to take place generally to the west of Nailsea and Backwell which will bring significant challenges in terms of transport delivery, but avoids the Green Belt and principal flood zone areas.

Keynsham (up to 1,100 dwellings)

28. This location performs well in the Sustainability Appraisal and will also be effective in helping to deliver the Plan's Strategic Priorities, being a town expansion situated on a strategic transport corridor well related to Bath & Bristol. The proximity to central Bristol and its links to Bath provide the opportunity to exploit both existing and potential new sustainable transport infrastructure including conventional bus corridors, Park & Ride, the Bristol to Bath Railway line, the Bristol-Bath cycleway, and future MetroBus or rapid transit. However, any development in this location is dependent on the timely provision of significant new transport measures to enable new growth and to mitigate existing congestion. This includes new road infrastructure where appropriate to serve the potential development area and ease pressure in the town centre.

29. Whilst part of this location lies outside the Green Belt, the majority falls within the Green Belt but there are exceptional circumstances to justify removing the rest of the location from the Green Belt in light of its relative Green Belt performance against other Green Belt locations and its highly sustainable location. Development in this location will need to relate well to the existing settlement and take account the views from the Cotswolds AONB. The capacity of the site is constrained by the floodplain and the need to respect the separate integrity of Keynsham and Saltford.

Yate/Sodbury Strategic Corridor (up to 2,600 dwellings)

30. Strategic Growth would consolidate longer term role as one of the principle market towns in the sub-region benefiting from existing accessibility & service provision as a significant urban centre, particularly area's accessibility by rail. Alongside Coalpit Heath growth would support investment into rail and Metrobus extension along the A432 Badminton Road, improving access to Bristol City Centre, the Bristol North Fringe, Science Park and Emersons Green Enterprise Area. Long-term term phased greenfield development would also support investment in regeneration and the town centres and improving range and type of jobs and help to unlock potential brownfield development at the western gateway. Whilst part of this location lies outside the Green Belt, the majority falls within the Green Belt but there are exceptional circumstances to justify removing the rest of the location from the Green Belt in light of its relative Green Belt performance against other Green Belt locations and its highly sustainable location.

Coalpit Heath (up to 1,500)

31. Coalpit Heath offers close proximity to the Bristol North Fringe, Science Park and Emersons Green Enterprise Area. Strategic development along the A432 Badminton Road, in combination with further growth at Yate / Chipping Sodbury would support investment into rail at Yate and Metrobus. It would also support existing and provide new services / facilities and employment opportunities in the locality. Whilst this location lies within the Green Belt but there are exceptional circumstances to justify removing the rest of the location from the Green Belt in light of its relative Green Belt performance against other Green Belt locations and its highly sustainable location.

Thornbury (up to 600 dwellings)

32. Additional development that consolidates / completes expansion to east of the town, appropriate to continue the revitalisation of the town centre and strengthen local services. Also provides additional opportunity for investment and provision of new local employment and will assist the case for Metrobus to improve access to BNF and Science Park
33. Together, these locations can sustainably provide up to another 9,400 dwellings, totalling 29,400 dwellings, leaving 10,800 to find.

C: Other sustainable settlements outside the Green Belt

Weston-super-Mare: M5 to A38 Transport Corridor (up to 5,400)

34. Whilst being part of the Bristol HMA, Weston-super-Mare is a major urban area with its own travel to work area. Further expansion of the Weston urban area is severely constrained by topography, the AONB, the M5 and the flood plain. One potential opportunity is to expand to the east along the M5 to A38 transport corridor.
35. Development in this general location provides the opportunity to significantly upgrade the transport infrastructure on this corridor as part of an overall objective of improving the A38 south of Bristol and improving connectivity for the Airport. This would target the A38 route to the south of the Airport, improving accessibility for economic development and access to new jobs to the south and east of Bristol. It creates potential improvements to M5 access at Weston, relieves pressure on A370 corridor and addresses long standing community impacts, notably a bypass to alleviate congestion in Banwell. As further growth at Weston is highly constrained by topography, flood plain and significant highway capacity issues, this provides an opportunity to provide future growth to meet Weston's needs, linked to the existing urban area by transport improvements. Significant mitigations including public transport improvements, multi-modal links, park and ride improvements and highway links would need to be delivered in advance to support this location.
36. In line with the Strategic Priority to retain the integrity of the Green Belt, which reflects the national priority to safeguard Green Belts, all sustainable options need to be exhausted before Green Belt locations are selected. Other sustainable non-Green Belt opportunities are outlined below.

Charfield (up to 1,000 dwellings)

37. This provides an opportunity to enhance the sustainability of a key settlement in the north of South Gloucestershire through growth supported by new services, facilities and employment opportunities. Charfield is situated on an existing live railway line. Whilst the station is currently closed any additional housing in this location could support a case for potentially reopening the station and rural bus improvements.. Significant highway infrastructure may also be required. It also assists addressing housing needs in the north of the district.

Buckover Garden Village (up to 2,200 dwellings)

38. An opportunity has recently emerged beyond the Green Belt in South Gloucestershire for a potential new garden village settlement (up to 3000 dwellings) located to the east of Thornbury. This location provides the opportunity to deliver the first locally led garden village for West of England in 21st Century. It could help the case for a step change in public transport to the locality, linking to Metrobus routes to enable access to the major employment centres of North Bristol.

39. Significant highway infrastructure, including the strategic road network (M5), may also be required. It also potentially broadens the range of housing supply in the sub-region via a single ownership with genuinely visionary approach to place making and land value capture. Alongside planned expansion at Charfield it would also provide the opportunity for the local communities in the north of the district to meet housing pressures in a planned sustainable way. Buckover is also a potential growth point for any future Oldbury NNB.

Other locations rejected

40. The other locations in Annex 1 outside the Green Belt are not consider appropriate for strategic growth for the reasons set out in Annex 3.

41. The above locations beyond the outer Green Belt boundary can sustainably provide up to another 8,600 dwellings, leaving 2,200 dwellings still to find.

D: Green Belt locations

42. Therefore, in light of the strong evidence underpinning the most sustainable pattern of development outlined above, it is recognised that consideration needs to be given to Green Belt locations and specifically the case to consider locations in close proximity/well related to existing urban centres. However this needs to be undertaken in the context of the Plan's overall priorities and spatial objectives at set out above.

43. The possible opportunities for strategic growth in the Green Belt are included in Annex 1. The Strategic Priority to focus investment at under-performing parts of City Region to help reduce inequality across the sub-region favours growth in southern Bristol and particularly the locations at south of Whitchurch Village, Ashton Vale and Hicks Gate over those in the north of the urban area

44. It is evident from the Green Belt stage 2 assessments that that part of Ashton Vale that lies within the City boundary and is inside the South Bristol Link Road makes only a limited contribution to the Green Belt compared to other GB locations. This location would accommodate around 400 dwellings and whilst not strategic in size, it could contribute to non-strategic growth within Bristol, see para 4.

45. In comparing the 3 southern potential urban extensions, greater harm would be caused to the Green Belt by the release of Ashton Vale (outside the South Bristol Link road) and Hicks Gate compared to Whitchurch. Furthermore, the cumulative impact of the release of three locations from the Green Belt in this very sensitive part of the Green Belt between Bristol & Keynsham is substantial.

46. Therefore, it is concluded that because of the substantial sub-regional housing need, combined with the relatively sustainable nature of its location, the contribution that could be made to improving sustainable transport options south east of Bristol, as

well as its relative performance in Green Belt terms constitute the exceptional circumstances to justify the release of land south of Whitchurch Village (only) from the Green Belt.

47. However, this location (as with other locations being considered) is only deliverable if substantial new sub-regional and local transport infrastructure is provided, focussing on public transport, including conventional bus service upgrading, new park & ride, and future Metrobus or rapid transit provision. Additional highway capacity would also be needed, to address underlying congestion issues, to provide access to new development and to release space for the public transport improvements. The location's capacity must take into account the need to avoid unacceptable harm to nationally important heritage assets as well as retaining the Green Belt separation of Whitchurch Village from the Bristol Urban area.
48. This location has the capacity to contribute up to 3,500 dwellings to housing land supply which would be sufficient to meet the housing target as well as provide some flexibility/safeguarded land.

STAGE 5 : REFINEMENT OF THE SPATIAL STRATEGY

49. Following public consultation the emerging spatial strategy will be reviewed and refined in light of responses received and any critical new evidence. This will include;
 - a. Confirmation that the overall housing distribution for each UA is deliverable. This includes the provision of **transport infrastructure**,
 - b. Ensuring the availability of a 5 year **housing land supply (HLS)**
 - The need for a Contingency or to consider the scope to safeguard land for the long term under NPPF para 85
 - Comments on alternative locations or strategies being promoted, evidence in relation to housing requirement or economic growth?

Annex 1 list of potential locations assessed

Typology	Location Name
Urban Intensification	Bristol, Bath, North & East Fringe, WSM
Sustainable Transport corridors	Salford, Thornbury, Nailsea/Backwell, Backwell, Keynsham locations, Yate/Sodbury strategic corridor (Yate/ Chipping Sodbury/), <i>Winterbourne, Frampton Cotterell and Coalpit Heath</i> A38 strategic growth Banwell/Churchill
Expansion around Bristol & Bath	Longwell Green, Hambrook, Severnside, Bridge Yate / Oldland Common, Kingswood / Warmley, West of Twerton, Ashton Vale, SE Bristol Hicks Gate, SE Bristol Whitchurch
Other Settlements/locations	Charfield, Buckover Garden Village, Yatton, Long Ashton, Portishead, Easton-in-Gordano, Clutton/Temple Cloud locations, North of M4/M5, Somer Valley Locations (Radstock, Westfield, Mid. Norton, Paulton, Peasedown St John), Pucklechurch, M4 to Shortwood, Congresbury, Olveston, Wickwar, Alveston, Almondsbury / Hortham,

Annex 2: Strategic priorities & critical issues

Critical Issue	Overarching objective
The national housing crisis is a particular problem in the WoE & the NPPF requires that LAs plan positively for development and meet the full needs	1. To identify & meet the full need for housing
The economic prosperity of the WoE should be maintained due to the substantial benefit it brings to the residents, communities & the environment	2. To meet the space needed for new job creation to facilitate strong economic growth as set out in the LEP Strategic Economic Plan
There is significant pressure on infrastructure, especially transport which . inhibits wealth creation and productivity. Current unsustainable patterns of travel are a significant cause of climate change and poor health	3. To ensure a spatial strategy where new development is properly aligned with infrastructure.
The sub-region benefits from a world class environment which brings substantial economic and community benefits and contributes significantly to the quality of life of residents, visitors and businesses.	4. To protect and enhance the sub-region's diverse and valuable environment

Annex 3: Locations not selected for strategic growth

Yatton	Yatton is a very constrained location in terms of transport, flood risk, ecology and transport. The location was tested through the transport modelling and performed poorly as highway trips would have a disproportionate impact on the network as a result of long distances to all destinations and would require expensive mitigation– river and rail crossing. Surrounded by low lying land at risk of flooding.
Long Ashton	The principal area of potential development to the south is separated from Long Ashton by the railway and is difficult to integrate into the existing settlement because of severance issues. It is a sensitive part of the Green Belt valued by the local community. Long Ashton is relatively close to Bristol, so there is an opportunity to maximise cycling and use of metro bus. There are also existing transport constraints relating to Cumberland Basin congestion and M5 J19.
Portishead	Portishead is a very constrained location in terms of transport, Green Belt, flooding and ecology. Whilst there is opportunity afforded by Portishead line rail re-opening, there are major capacity constraints at M5 J19.
Easton-in-Gordano/Pill	Easton-in-Gordano is a very constrained location in terms of transport, Green Belt, heritage, landscape and ecology. Whilst there is opportunity afforded by the Portishead line rail re-opening, there are major capacity constraints at M5 J19.
Clevedon	Clevedon is very constrained in terms of flood risk to the south and east and topography and landscape to the north. The levels landscape is also particularly sensitive both for its own characteristic value and ecological contribution as well as potential for adverse ecological impacts on the coastal habitat to the south of Clevedon. Any new development to the east of M5 would be physically separated from the existing town. Strategic development was also shown to be quite problematic in transport terms in this location with additional trips on the M5 and contributing to congestion on more localised routes.
NW Saltford	This location does not make the threshold for strategic development location. The location lies within the Green Belt
West & South West Keynsham	This location does not perform well in the Sustainability Appraisal. It would be difficult and costly to mitigate the negative impacts of development in this location. The location lies within the Green Belt
SE Keynsham	This location does not perform well in the Sustainability Appraisal. It would be difficult and costly to mitigate the negative impacts of development in this location. The location lies within the Green Belt
SW Saltford	This location does not perform well in the Sustainability Appraisal. It would be difficult and costly to mitigate the negative impacts of development in this location. The location lies within the Green Belt
Somer Valley locations	The Somer Valley is one of the least sustainable locations in the sub-region for accommodating strategic housing growth. There is already a substantial imbalance in the number of workers who reside in the town and the employment available and this will be exacerbated in light of existing residential commitments. It has also proved difficult to attract new employment to the area and jobs have been steadily eroded over recent years. Therefore, strategic new housing growth will inevitably lead to substantial out commuting. Transport modelling shows that seeking to mitigate this will be

	difficult, costly and only partially effective. The purpose of the new Enterprise Zone is to facilitate employment generation to help mitigate the existing high levels of out-commuting.
Clutton and Temple Cloud	Sites in Clutton & Temple Cloud do not perform well as sustainable locations for accommodating strategic housing growth in the sub-region. The majority of new residents are highly likely to seek to travel by car to work and other activities. Transport modelling shows that seeking to mitigate this will be difficult, costly and only partially effective.
West of Twerton, Bath	Based on the SA the significance impact that development of this scale and this location would have on World Heritage site and its setting has led to this full site not being considered as a reasonable option. The severity of harm caused by development in this location would significantly outweigh the benefits. It would cause significant harm to the setting of the WHS and whilst it is not in the AONB, it is on the edge of Bath and is visually prominent, thereby causing harm to the AONB. As such development would contradict national policy. It also performs very strongly in Green Belt terms. Therefore this location is not suitable for development in the plan period.
SE Bristol Hicks Gate	Whilst this location performs well in the Sustainability Appraisal, and would be effective in helping to deliver the Plan's Strategic Priorities, it lies in a very sensitive part of the Bristol and Bath Green Belt which makes a major contribution to preventing the merger of Bristol and Keynsham.
Ashton Vale	The Green Belt at Ashton Vale (outside the South Bristol Link) makes a major contribution to Green Belt purposes, especially in preventing the merger of Bristol and other settlements. It is an area of attractive countryside and a sensitive landscape in relation to, in particular, Ashton Court and Dundry Hill and has ecological importance. It provides the landscape setting to Bristol and for rural communities within North Somerset and plays a significant role in protecting the countryside from encroachment of development. Protecting high quality environment is a priority of the plan. The location was tested through the transport modelling and performed well in terms of potential accessibility by non-car modes given its proximity to Bristol. There are also existing transport constraints relating to M5 J19.

Draft Urban Living - Maximising the development potential in the urban areas

Introduction

The West of England authorities believe that the most appropriate places to meet the development needs of the future should be within the existing cities and towns; especially on previously developed land. As noted in the Issues and Options document, the four UAs have been undertaking detailed assessment of the potential of existing urban areas to deliver land to meet development needs. The assessments have focused on opportunities within the existing urban areas including Bristol and Weston-Super-Mare as well as examining opportunities within other sizeable urban areas in the West of England.

This report provides an update on the work carried out to date to establish the potential of the urban areas of Bristol and the Bristol fringe in South Gloucestershire, Weston-Super-Mare and Bath to deliver additional homes up to 2036.

The paper explains the approach to making the most efficient use of land in these urban areas and how this has been applied in each area. An estimate is set out in the report which indicates the capacity for new homes to be delivered in the city's built up area to 2036.

Assessed housing need

The Wider Bristol Housing Market Area includes the urban area of Bristol (including the communities of the North and East Fringe, the rest of South Gloucestershire, all of North Somerset, the western part of Bath and North East Somerset and small parts of Stroud and Sedgemoor Districts (see figure 1 below). The addendum to the Strategic Housing Market Assessment (July 2016) has identified a housing target covering both the HMA's of at least 105,000 homes, for the period from 2016 to 2036.

Figure 1 W HMAs in the West of England

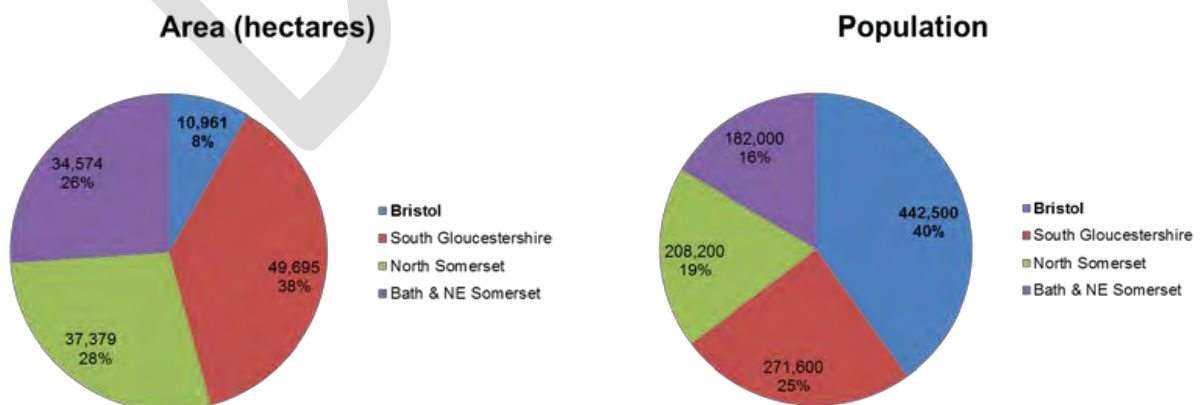


Continued delivery of homes within the urban areas has the potential to contribute substantially to meeting identified needs in the housing market areas.

Bristol City Council

Context

The City of Bristol accounts for 8% of the land area of the West of England whilst containing 40% of the population and existing homes.



The City Council area is mainly built up, with high densities of housing development and a substantial provision of flatted residential development. There are limited areas of open land. Unlike many industrial cities, Bristol does not contain substantial tracts of brownfield land or zones of industrial dereliction which can be considered for housing led regeneration. However, in the last nine years **45% (16,347)** of the new homes delivered in the West of England have been built in the City of Bristol – a rate of 1,800 per annum; see table below:

	Total delivery of homes 2006-2015	Annual average
Bristol	16347	1,800
South Gloucestershire	8129	900
North Somerset	7426	800
Bath and North East Somerset	4350	500

Urban living: approach to efficient use of land in Bristol

The high levels of residential development delivered in Bristol are facilitated by the city's approach of making effective and efficient use of land.

Bristol has a complete up to date local plan coverage for the period to 2026 (Core Strategy, Site Allocations and Development Management Policies; Bristol Central Area Plan adopted 2015). The adopted Bristol Core Strategy includes policies which seek to secure the effective and efficient use of land. These aim to maximise opportunities to re-use previously developed land. A **minimum indicative net density of 50 homes per hectare** is sought. Higher densities of development are sought in and around the city centre; in or close to other centres and along or close to main public transport routes.

Between 2006 and 2015, 96% of all dwellings completed in Bristol were at more than 50 homes per hectare. In the last 10 years the average density of new development on major housing sites has been **100 homes per hectare**; in the city centre development densities averaged over **300 homes per hectare** in the same period. In the same period, 82% of all dwellings completions in Bristol have been for flats.

The policy approaches to securing very efficient use of land have been carried forward into the analysis of potential for new urban sites in Bristol. This is discussed below.

Estimated capacity from Bristol City Council's area

It is estimated that the built up area of the City of Bristol can contribute approximately 32,000 homes (1,615 homes per year). As shown below, this capacity arises from four sources:

Bristol City Council	Capacity
Potential source of housing supply 2016 - 2036	
Existing planning permissions	7055
Existing Local Plan allocations	8464
Unidentified small sites	4800
Urban living potential	12000
Estimated total urban capacity	32319

New 'urban living potential' comprises 12,000 of the capacity for new homes identified above. The approach to estimating the new urban potential in Bristol is explained below.

Urban living potential

As its contribution to the West of England urban living potential assessment, Bristol City Council has undertaken a detailed search for potential development opportunities within the Bristol boundary that do not already benefit from planning permission for residential development, are not allocated and would deliver 10 or more homes. The assessment of urban living potential has had a number of strands:

- A citywide search for potential new brownfield development opportunities;
- Review of land currently reserved for the retention of industrial and warehousing uses;
- Assessment of potential from the conversion or redevelopment of city centre offices which are no longer required for employment uses;
- Review of the potential to increase the capacity of existing Local Plan site allocations;
- Potential for development of any undeveloped land within the urban area.

The urban living potential analysis to date suggests that there continues to be significant capacity for new homes to be delivered within the built up area of Bristol up to 2036. There is potential for 12,000 new homes from new sites that may reasonably be expected to come forward in Bristol over the plan period.

This is shown below:

<i>Source</i>	<i>Potential homes</i>
New brownfield opportunities (city reclaimed land)	6800
Land no longer required for industry/warehousing	1500
Re-use/redevelopment of redundant city centre offices	2100
Uplift of existing local plan site allocations	500
Undeveloped urban land	1100
Total	12000

South Gloucestershire

The district of South Gloucestershire incorporates the urban areas of the North and East Fringes of Bristol, Thornbury, Yate and Chipping Sodbury. Collectively it is anticipated that development on previously developed land in these areas could contribute to this 12,000 figure by delivering approximately 1,000 new homes from sites of 10 dwellings and above.

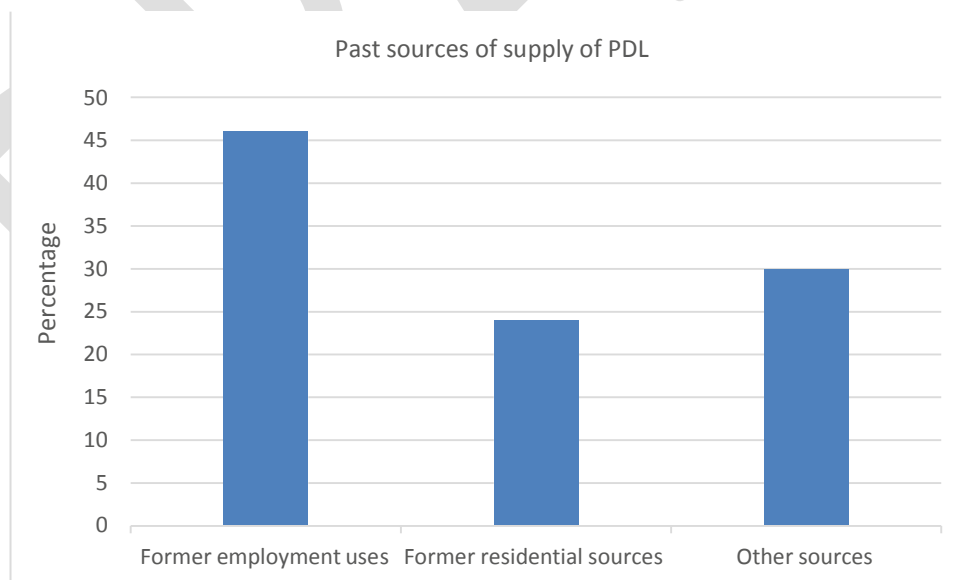
To achieve this outcome a forecasting/ projections based approach has been used. This has assessed whether continued development opportunities exist within urban areas, whether past rates of delivery are capable of being sustained and what sources of supply this land is likely to be generated from, based on the current data sets available.

In applying the projections based approach in accord with paragraph 48 of the NPPF, the objectives have been to:

- a) *To review past delivery rates of development on previously developed land and sources of that land.*
- b) *To review potential future rates of development on previously developed land and the sources of that land,*
- c) *To establish an understanding of what contribution windfall PDL will likely make to overall future completion rates over the next 10-20 years up to 2036 and what type of sites are likely to generate that delivery.*

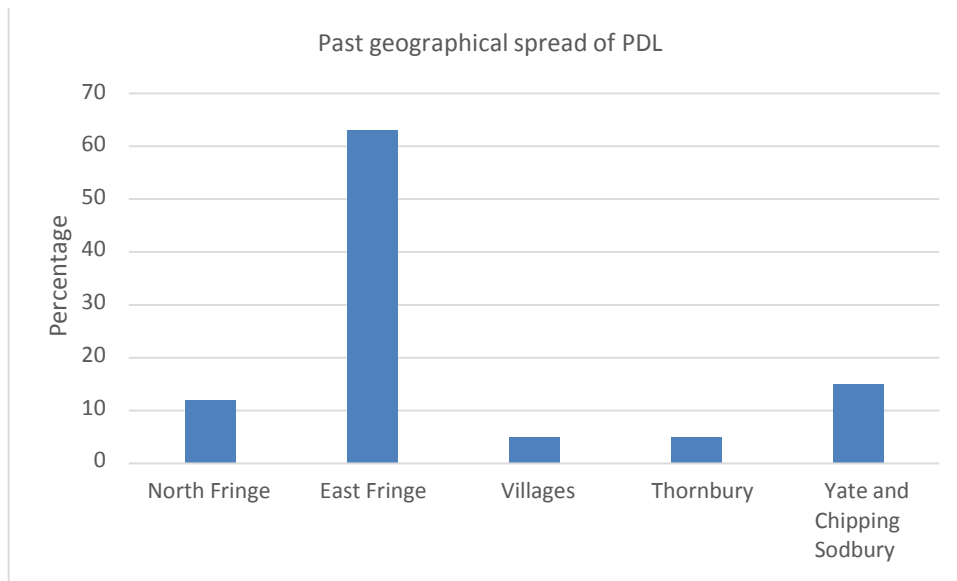
a). Past sources of supply and geographical spread

From the Council’s monitoring of residential development over the past two decades it has been possible to make an informed judgement about what might be expected in the future. In the past 20 years almost **3,000** new homes in South Gloucestershire have been built on previously developed large sites (10+ homes), **an average of 150 dwellings per annum**. Almost half (**46%**) of these completions have been from former **“employment uses”**. Former “residential sources” accounted for 24% of completions, and almost a third (30%) of completions were from “other sources”.



It has also been possible to identify the main areas where development has occurred, to help identify where development might be expected in the future. Past rates have identified that **63%** of development on previously developed land has occurred within the communities of the **Bristol East Fringe**, with the Communities of the North Fringe, Thornbury, Yate/

Chipping Sodbury and the rest of South Gloucestershire, collectively making up the remaining 37% of development on previously developed land.

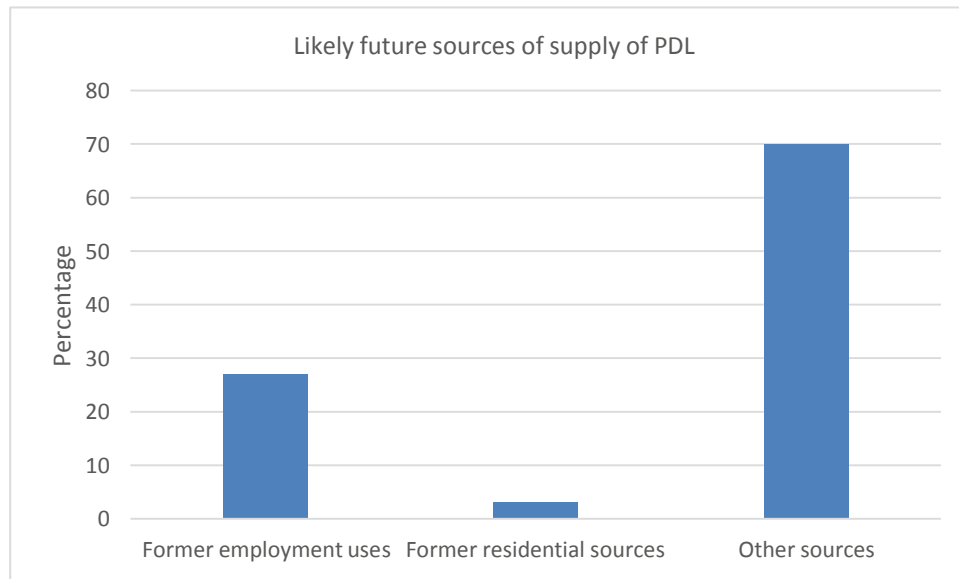


b). Likely future sources of supply and geographical spread

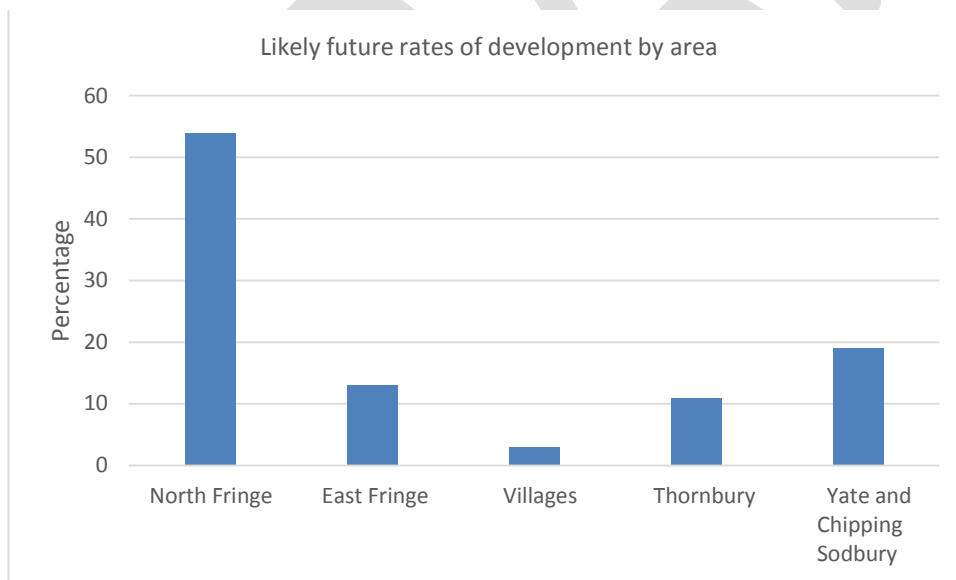
Windfall sites are those not specifically identified as available in the Local Plan process and normally comprise of previously developed sites that have become available. The above analysis has indicated that over the last 20 years windfall sites of over 10 dwellings have resulted in approximately **150 dwellings per year**. To determine the contribution such supply is likely to make in future a variety of data sets have been examined including: new planning permissions granted; current applications pending decisions; sites submitted as part of a call for sites exercise including any subsequent sites submitted as a result of further consultation; and other known sites.

Forecasting analysis indicates that currently there could be potential for at least **1,300 new homes** on a variety of previously developed sites, which based on an annual average could delivery around **65 dwellings per year over the period 2016-2036**. The majority of this supply can be typically divided into the following former land uses:

Source of supply	percentage	Indicative number
Former employment uses; e.g. industrial and storage uses	27	351
Former residential sources, e.g. residential redevelopment sites/garden land	3	39
Other sources, e.g. schools, community buildings, carparks, retail	70	910
Total	100	1,300



Very little new development is likely to come forward from the redevelopment of existing housing. Whilst in the future windfall sites will continue to provide an important element of housing supply, it is unlikely to provide such large numbers of new homes as in the past, as many of the largest sites, particularly on former employment sites have already been developed.

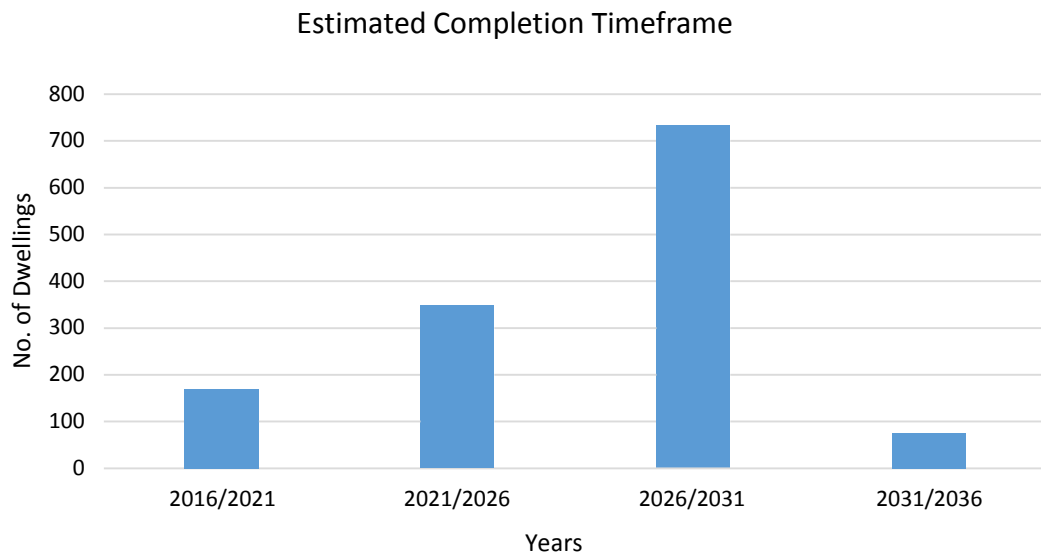


This analysis indicates that from across the Policy Areas, in future years the **Communities of the Bristol North Fringe** could provide the most significant opportunities for the supply of housing units from urban sites, with **over 50%** of capacity from current sites falling within this area. This compares with 12% in the past. **Yate and Chipping Sodbury** could provide the second most significant opportunities with **19%** of capacity on sites falling within this area. The **communities of the Bristol East Fringe** area, whilst in the past providing over 60% of

capacity is unlikely to provide many medium/large redevelopment opportunities in the future, the majority coming from smaller scale urban redevelopment sites.

From the current known sites it is possible to anticipate the likely time horizon of delivery. Whilst this can only be an estimate of when sites are likely to come forward an attempt has been made to broadly group expected development into five year periods. For this purpose sites that have already got planning permission have been assumed to be complete with the first 5 year period. As regards to the other sites, it is more difficult to forecast when these are likely to be complete so for the purpose of this exercise sites have been randomly “spread” over the remaining 15 years.

It can be seen from the graph below that in the next five years around 200 homes could be expected. The majority of new homes could come forward in the ten year period to 2031 with most of these after 2026 coinciding with the end of the Core Strategy period.



Conclusions

A snap shot assessment of development potential as at April 2016 identified that in the region of 1,300 dwellings are likely to come forward through wind fall sites on previously developed land (See South Gloucestershire SHLAA sites for further details)

Bath and North East Somerset – Bath

Bath is relatively small city with a population of around 90,000 residents. It is distinctive in the range and significance of its environmental assets in particular UNESCO World Heritage Site, has an extensive Conservation Area, is surrounded three sides by the Cotswolds AONB. This severely affects the amount of land available for redevelopment in the City and the nature of development appropriate.

Item 5 Appendix 4

The work on the B&NES Core Strategy entailed an intensive assessment of development opportunities and the B&NES core strategy plans for 5,320 dwellings to be built in Bath before 2029, with 90% of identified sites of 10 or more dwellings being on brownfield land. In light of the fact that Brownfield sites were maximised, some of Bath's housing need had to be met in adjoining settlements and warranted the need to remove land from the Green Belt on the edge of the City. Therefore further opportunities to maximise the urban potential of Bath are extremely limited

City of Bath Potential source of housing supply 2016 - 2036	Capacity
Existing planning permissions	4000
Existing Local Plan allocations	1000
Unidentified small sites	400
Estimated existing urban capacity	5,700

However, further work has been undertaken as part of the preparation of the JSP. This has entailed a review of land and buildings in Bath in seeking to identify further resources of supply for new housing. These are sites that do not already benefit from planning permission for residential development, are not allocated and would deliver 10 or more homes. This is in addition to the housing supply identified to meet the B&NES Core Strategy planned housing growth in Bath which at 2016 stood at 6,600 dwellings.

Small windfall sites (less than 10 dwellings) are addressed separately which includes an assessment of the likely yield from bringing empty properties back into use. This amounts to around 300 dwellings as shown in the table below.

Source	Potential homes
New brownfield sites (not already identified)	110
Existing housing estates and garage blocks	55
Reappraisal of previously discounted SHLAA sites, including Industrial Sites	130
Change of use from offices	14
Uplift of existing site allocations capacity	0
Total	309

North Somerset – Weston-super-Mare

Summary of methodology

The methodology applied in North Somerset to identify potential is based on a review of existing land availability information, consideration of the role and potential of broad locations, and the potential contribution from increased delivery as a result of the greater incentives and interventions to support urban regeneration including greater plan-led intervention.

This assessment is not a Housing and Economic Land Availability Assessment though it draws on the outputs of the 2014 HELAA. It is anticipated that a revised HELAA will be produced in due course to support Local Plan allocations for housing.

The approach taken is therefore targeted at providing a broad understanding of the potential opportunities to increase urban living potential and setting the context for further investigation. This is considered to be a proportionate approach to fit the strategic nature of the JSP.

This approach draws on the latest survey of land opportunities in Weston-Super-Mare and also identifies locations that can be explored further where there may be strategic opportunities for housing e.g. focussed around transport hubs and retail centres.

The sites considered are not currently committed, and therefore, do not form part of the baseline supply (the 66,000 dwellings). These sites were previously identified as having some development potential through the North Somerset 2014 HELAA and the Council will be reviewing this study and all of the sites to inform the plan making process.

The focus for increased urban living potential in WSM will be on the town centre, where there are proposals emerging for regeneration. This is backed by increased involvement from the Homes and Communities Agency that should support the delivery of key sites in the town centre.

Review of the findings

Overall the assessment has identified an increase in urban living potential capacity of 1,850 dwellings at Weston-super-Mare). This comprises the following elements:

- 1,165 dwellings at WSM on specific identified sites from the 2014 HELAA,
- 500 dwellings on broad locations (subject to further investigation);
- 185 additional dwellings delivered through increase policy intervention to encourage urban living¹

Specific identified sites from the 2014 HELAA

A total potential capacity of 1,165 dwellings at Weston-super-Mare is identified through a review of existing information on land availability. Similarly a potential capacity of 117 is identified from the same source for Clevedon, Nailsea, and Portishead.

¹ Note: this figure is only intended to serve as a scenario to indicate increased provision from small sites over the plan period stimulated by increased intervention to support urban living. It should be subject to further investigation but is expected to be on the lower side of potential.

In the main these sites are large (greater than 10 dwellings). Whilst it is unlikely that all of the identified sites would come forward as allocations, and others not in the list will, it is useful to compare the total with historic annual large site windfalls in the town to provide an overall sense check on the scale of potential.

The **1,165 dwellings** would likely emerge from 2021 onwards, averaging around 78 dwellings per annum (2021 to 2036), with the vast majority being on large sites. This compares with an actual delivery of 2024 dwellings on large sites in the WSM urban area alone between 2006 and 2015, averaging 225 dwellings per year. This shows that the scale of potential at least, is in line with historic large site delivery trends.

The sites considered will go on to be reviewed through a site allocations process in due course. For the purposes of this assessment, there is no suggestion that they would all be progressed however the scale of sites identified, coupled with the historic completions indicates that it would be feasible to secure around **1,000** dwellings up to 2036.

It is recommended that the suitability to accommodate this level of change in the urban area plus any required mitigation and infrastructure investment, is explored through the SA process and other testing.

Broad Locations

A potential dwelling capacity has not been specifically attributed to individual broad locations however the yield could be significant. A notional **500** is included to be subject to further investigation, and a range of broad locations have been identified based on the principle of setting a walkable catchment around centres of activity and through the identification of a range of indicative locations where a strategic approach to delivery could be explored. It is generally expected that such potential would likely be delivered during the later stages of the JSP plan period due to the additional plan making processes required to bring forward such potential and the longer lead-in times. It is recommended that further work to explore such opportunities is considered through the future North Somerset HELAA to support local policy and site allocations in the context of the JSP.

Additional small-site windfall

The greater focus on delivering housing in urban areas has the potential to translate to increased delivery of dwellings on small site windfalls brought forward in accordance with the Development Plan. The position set out in the baseline *Housing Capacity Evidence Paper* (November 2015) is that the prevailing trends are expected to continue. Therefore the additional potential of up to **185 dwellings** (2021 to 2036²) can be considered a trend+ but is not assumed within the baseline supply position.

How does the potential capacity from this study relate to the baseline supply position?

The potential identified here is in addition to the housing supply set out in the *Housing Capacity Evidence Paper* (November 2015), though there is likely to be some cross-over in

² Allowing the initial 5 years of the plan period to reflect trend recognising that it will take time for policies and other influences to take effect.

their delivery.

Potential increase in urban living capacity across the West of England

In summary, the ongoing review of potential increase in dwellings in the main urban areas across the West of England has indicated that there is potential for the delivery of an additional 14,609 units.

Urban potential source of housing supply 2016 - 2036	Additional dwellings
Bristol	12,000
South Gloucestershire	1,300
North Somerset	1,000
B&NES	309
Estimated total urban potential	14,609

The early development of a number of these sites is likely to require prioritised investment and intervention from the public sector. This is the subject of further research and assessment.

Details of the approach to assessing urban living potential are included at **Appendix 1**.

The assessment will form part of the evidence base for the Joint Spatial Plan. It is expected that the assessment will be published alongside the draft Joint Spatial Plan when it is made available for public consultation in the Autumn.

Appendix 1 – Details of urban living potential assessment – Bristol City Council

New brownfield opportunities - city reclaimed land

The citywide search for brownfield sites, dubbed 'city reclaimed land', focused in and around the 47 Local Plan designated town, district and local centres, transport hubs and transport corridors. Existing mapped and photographic information was used to identify areas of underused land or buildings. Other sources of sites in locations across the city were also considered, such as land around local authority high rise housing or sites previously considered for local plan site allocations but not taken forward at the time.

Each of the sites was ascribed a potential capacity for development based on a set of density assumptions (ranging from **65dph** in suburban locations to **200dph** in the city centre). They were then analysed against key constraints (e.g. the presence of listed buildings, high flood risk or the amount of the site likely to be required for infrastructure) to make the capacity assumptions more realistic.

Consideration was given to the likelihood of each site coming forward for residential development. The more likely sites have contributed to the capacity set out in this briefing. Sites that were not considered likely to come forward (e.g. under-utilised land in existing uses such as supermarket car parks) were also recorded but do not contribute to the overall estimated capacity as they were not considered likely to come forward for development over the plan period.

Principal Industrial and Warehousing Areas

The Bristol Local Plans' designated Principal Industrial and Warehousing Areas (PIWAs) were reviewed through a process of site visits. Officers assessed the condition and occupancy of land and buildings to identify whether they were likely to continue to be designated as a PIWA at the next Local Plan review.

Sites identified for potential change from the PIWA designation were ascribed capacities and analysed for constraints following the city reclaimed land method. The sites considered more likely to come forward for development during the plan period have contributed to the identified.

City centre offices

For city centre offices, a different method was used to reflect the fact that the conversion of offices to residential currently benefits from a simplified 'prior approval' regime under the General Permitted Development Order and does not require planning permission. Recent prior approvals were analysed to identify an average density per floor of 100dph. This average density was then applied to the remaining supply of large city centre office buildings considered likely to come forward for conversion by reason of their location, condition and/or occupancy.

Uplift of existing local plan site allocations

Existing local plan site allocations have been reviewed to see if higher density forms of development could be considered. The potential from this source is limited as sites were subject to detailed consideration during local plan preparation. Capacities for the sites were identified through a process of public consultation and examination by a planning inspector. The stated capacities are already subject to the density policies in the Bristol Core Strategy and its approach to making efficient and effective use of land. However, there may be some opportunity on the larger allocations for securing housing numbers higher than identified

capacities. An estimate of an additional 500 homes has been made.

A similar review may form part of the urban potential assessments being undertaken by the other unitary authorities.

Undeveloped urban land

There is a limited proportion of undeveloped land in the city which is mainly built up.

The review is ongoing, but an initial desktop assessment of any undeveloped land identified a small number of sites which may not be need to be retained for open uses. These have been initially assessed for their suitability for residential development. These locations have been ascribed capacities and analysed for constraints following the city reclaimed land method.

Viability assessment

The urban living potential assessment is on-going. Consultants have been commissioned to provide information on the viability of sites for residential development. This will assist in determining whether sites considered to have capacity for residential development are likely to prove to be viable development opportunities. This will enable a more detailed determination which sites are likely to contribute to housing deliver over the plan period.

Small unidentified sites

In assessing future capacity for development an allowance is made for deliver from small unidentified sites. These are developments fewer than 10 dwellings and include small conversion schemes. There has been consistent delivery from this source over many years and the trend is expected to continue. 300 homes per year are projected from this source. The estimate was included in the housing figures stated in the Joint Spatial Plan Issues and Options document.

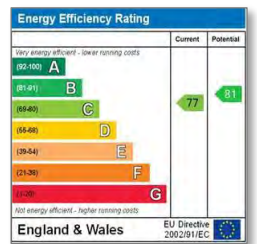
September 2016



West of England Housing Target

The basis for the Housing Requirement in the Joint Spatial Plan

DRAFT: September 2016





Opinion Research Services | The Strand, Swansea SA1 1AF
Jonathan Lee | David Harrison | Nigel Moore
enquiries: 01792 535300 · info@ors.org.uk · www.ors.org.uk

© Copyright September 2016

West of England Housing Target

The basis for the Housing Requirement in the Joint Spatial Plan

1. Opinion Research Services (ORS) was commissioned by the local authorities in the West of England (Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire) to further develop the evidence in order to establish the overall housing target for the area over the 20-year period 2016-36 to inform the housing target for the Joint Spatial Plan (JSP).
2. The Wider Bristol SHMA was published in June 2015 and this identified an Objectively Assessed Need (OAN) of 85,000 dwellings for the Wider Bristol housing market area (HMA): the combined area of Bristol, North Somerset and South Gloucestershire. The OAN identified covered the 20-year period 2016-36 and was consulted upon as part of the evidence base for the JSP.
3. The consultation feedback received about the SHMA and the associated OAN for Wider Bristol HMA was all considered by the local authorities, and the issues raised were discussed with ORS. There was also a sequence of clarification meetings with objectors who provided their own alternative housing need assessments.
4. The local authorities want to ensure that the JSP housing target will provide for the right number of new homes in the West of England and they are keen to minimise the extent of any disagreement at the forthcoming JSP Examination. Therefore, having considered the feedback received, the local authorities have decided to further develop the evidence base. This seeks to respond to the concerns raised where appropriate and also ensures that the housing target takes account of all housing requirements, including those not captured by the identified OAN, as required by the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG). In summary:
 - » The Bath SHMA has been updated to establish the OAN for Bath HMA over the period 2016-36 based on assumptions that are fully consistent with the Wider Bristol SHMA, so the evidence is now fully aligned and provides spatial coverage across the West of England for the entire JSP period;
 - » The household projections in the Wider Bristol SHMA and the Bath SHMA have been reviewed in the context of other projections to ensure that they provide a reasonable demographic baseline;
 - » The LEP has commissioned Oxford Economics to update the economic forecasts to a 2015 base date to ensure that the alignment between jobs and workers is based on up-to-date information and provide a “policy off” basis on which to consider the balance between growth in Wider Bristol HMA and Bath HMA;
 - » The proposed responses to market signals in establishing OAN for Wider Bristol HMA and Bath HMA have been reviewed in the context of the feedback received and recent Inspectors’ decisions;
 - » The way in which housing backlog was considered and changes over the period 2012-16 were dealt with by the SHMAs has been reconsidered;
 - » The impact of assumptions about older persons living in care, existing housing likely to be vacated and the way in which housing for older people (including residential institutions in Use Class C2) is to be counted, have been factored into the housing target; and
 - » The justification for a further increase in the total housing figure included in the JSP in order to help deliver the affordable housing needed has been considered.

Summary of Objectively Assessed Need

5. The table below sets out the process for establishing objectively assessed need that was used for the Wider Bristol SHMA (June 2015) and Bath SHMA (June 2016). Both studies establish OAN for the 20-year period 2016-36; the household projections have a base date of 2012 and both studies are based on the same methodology and use the same underlying datasets with fully consistent assumptions to ensure that the results are directly comparable.

Figure 1: Full Objectively Assessed Need for Housing across the West of England 2016-36

Stage		Wider Bristol HMA	Bath HMA	TOTAL
HOUSEHOLDS				
Demographic starting point CLG household projections 2016-36		78,538	9,324	87,862
Adjustment for local demographic factors and migration trends 10-year migration trend		-2,734	-350	-3,084
Baseline household projections taking account of local circumstances		75,804	8,974	84,778
DWELLINGS				
Allowance for transactional vacancies and second homes Based on dwellings without a usually resident household		2,674	341	3,015
Housing need based on household projections taking account of local circumstances		78,478	9,315	87,793
Adjustment for suppressed household formation rates Concealed families and homeless households with allowance for vacancies and second homes		1,421 + 50 = 1,471	113 + 4 = 117	1,588
Baseline housing need based on demographic projections		79,949	9,432	89,381
Further adjustments needed...	In response to balancing jobs and workers Additional dwellings to ensure alignment between planned jobs growth and projected growth in workers	0	+3,263	+3,263
	In response to market signals Dwellings needed (in addition to the adjustment for concealed families and homeless households) to deliver the overall percentage uplift proposed	7.5% x 78,478 = 5,886 5,886 - 1,471 = +4,415	15% x 9,315 = 1,397 1,397 - 117 = +1,280	+5,695
	In response to backlog of housing provision between projection and Plan base dates 2012-16	+4,019	-1,201	+2,818
Combined impact of the identified adjustments		+4,415	+2,242	+6,657
Full Objectively Assessed Need for Housing 2016-36		84,364	11,674	96,038

6. Based on the above assessments, the SHMAs concluded that the Full Objective Assessed Need for Housing in the Wider Bristol HMA to be 85,000 dwellings and in the Bath HMA to be 11,700 dwellings, both over the 20-year JSP period 2016-36.
7. On this basis, the Full Objective Assessed Need for Housing across the whole of the West of England would be 96,700 dwellings over the 20-year JSP period 2016-36.
8. However, prior to establishing the West of England housing target, we will review the key assumptions on which the assessments of OAN in each HMA are based in the context of the consultation feedback received.

Reviewing the Household Projections

9. Consultation responses emphasised the need to confirm that the household projections were reasonable in the context of other projections for the area. The SHMA household projections used 10-year migration trends over the period 2001-11, which were based on Census data. This approach was supported by the Inspector examining the current BANES Core Strategy. The same approach has also been consistently supported by Inspectors elsewhere.
10. Across the West of England, the SHMA projections identify a growth of 84,800 households over the 20-year period 2016-36. This projection is broadly consistent with the CLG 2012-based and 2014-based projections for the same period, which identify a growth of 87,900 and 88,200 households respectively. These projections are based on the ONS 2012-based and 2014-based sub-national population projections, which use 5-year migration trends from the periods 2007-12 and 2009-14.
11. Both the SHMA projection and the recent CLG projections are notably lower than previous CLG 2008-based household projections, which identified a growth of 191,000 households over the 25-year period 2008-33. This is equivalent to an average of 7,640 households per year, which is 73% higher than the annual average from the 2014-based projections; but the 2008-based projection was based on the ONS 2008-based sub-national population projections which are no longer credible. The migration trends used to inform the 2008-based projection were based on ONS Mid-Year Estimates (MYE) which were inaccurate and have since been superseded (as the 2011 Census identified they were overstating population growth) and the trend period also included anomalous data for Bristol city, as discussed in the Wider Bristol SHMA report.
12. The CLG 2014-based household projections are based on the ONS 2014-based sub-national population projections, and projected population growth over the 20-year period 2016-36 is 8% higher in the 2014-based population projections than it was in the 2012-based projections. Despite this 8% difference in growth between the population projections, the CLG 2014-based household projections are less than 1% higher than the 2012-based projections for the same period. This is due to the 2014-based projections showing a lower rate of decline in average household size than the 2012-based data, which will have an impact on the SHMA household projections.
13. It is also important to recognise that all of the CLG household projections are based on short-term migration trends, and there is a now widespread acceptance that the planning for long-term housing provision demands an approach based on more stable, longer term migration trends. Considering 10-year migration trends, the SHMA baseline assumptions were based on annual net migration of 3,940 persons to Wider Bristol HMA and 550 persons to Bath HMA based on the period 2001-11. ONS MYE are now available for the period to mid-2015, and data for the most recent 10-year period 2005-15 shows a relatively stable average for Wider Bristol HMA at 4,030 migrant persons per year; however, the average for Bath HMA has more than doubled to 1,180 migrant persons per year.
14. The latest MYE data was reviewed by the Bath SHMA, which identified that administrative data sources suggested growth was being overestimated by over 900 persons each year from 2011-14. Adjusting for this likely overestimate would reduce the latest 10-year average to around 810 migrant persons per year – so higher than the 2001-11 trend, but far lower than implied by the raw data. We should therefore be cautious about these latest CLG projections, especially for the Bath HMA.
15. Taking account of the identified data quality issues, the latest 10-year average suggests that annual net migration to the West of England is around 4,840 persons compared to the baseline of 4,490 persons assumed by the SHMA projections. It would therefore seem reasonable to marginally increase the SHMA

- household projections to take account of this difference, and assume an additional 350 persons would be gained annually due to net migration. As the SHMA projections identify that the West of England population will be around 1.28 million persons by 2036, a further 350 persons each year over the 24-year projection period 2012-36 would increase this to nearly 1.29 million persons.
16. The population data from the Oxford Economics 2013-based economic forecast that was used to establish the LEP jobs target identified a population of 1.20 million persons would be needed to sustain the medium high scenario; so the SHMA projection is notably higher than this. The SHMA population is also higher than the 1.27 million persons identified by the medium high scenario from the 2015-based forecast; and consistent with the population increase of 1.29 million identified by the high scenario from this latest forecast. On this basis, the economic forecasts confirm that the SHMA population projection is reasonable and the forecasts do not provide any justification for a higher population growth.
17. In terms of the alternative assessments of housing need that were prepared as part of the feedback to the consultation:
- » Barton Willmore: this assessment projected that the West of England population would increase by 201,100 persons over the 20-year period 2016-36, reaching a total of 1.33 million persons by 2036; however, this was based on implausible mortality rates and the entire projection lacks credibility;
 - » NLP: the demographic projection for this assessment showed the West of England population increasing by 261,000 persons over the 20-year period 2016-36 (including an increase of 227,600 persons in Wider Bristol HMA), reaching a total of 1.38 million persons by 2036; however, this took no account of underlying data quality issues and the projections fail to reflect past trends;
 - » Business West: this assessment prepared by Professor Glen Bramley is based on a fundamentally different approach, which doesn't include a demographic-led projection.
18. Given the problems identified with the population projections prepared by both Barton Willmore and NLP, the associated household projections do not provide any basis for comparison. However, whilst the assessment prepared by Professor Glen Bramley is somewhat unorthodox in its approach when compared to the SHMA and the PPG advice, it gives an interesting alternative perspective – but as this analysis is fundamentally based on future economic growth, it has been considered further in the context of aligning jobs and workers.
19. In summary, we can therefore conclude that:
- » The SHMA projection is broadly comparable to the CLG 2012-based and 2014-based projections; and whilst all are lower than the 2008-based projection, the 2008-based figures are based on demonstrably inaccurate population data. Furthermore, all of the CLG projections use short-term migration trends which are unsuitable for planning long-term housing provision;
 - » Long-term migration trends remain broadly consistent with those assumed by the SHMA; although there have been some increases (particularly in Bath HMA) and this could add around 350 persons each year to the projected population;
 - » Alongside the changes to migration, there are also changes to average household sizes to consider;
 - » None of the alternative assessments of housing need provide a basis for comparison; however
 - » The SHMA projection is fundamentally consistent with the Oxford Economics economic forecasts in terms of the underlying population growth.

20. Having considered all of the evidence, we would conclude that the SHMA projections are reasonable but would propose that the housing target should factor in an uplift to take account of the marginal change to net migration in Wider Bristol HMA and the more notable change in Bath HMA:
- » **Wider Bristol:** increasing annual net migration by 90 persons would yield an extra 1,800 persons over a 20-year period; this would equate to around 800 households based on the average household size of 2.24 persons that is projected for Wider Bristol HMA in 2036; and
 - » **Bath:** increasing annual net migration by 260 persons would yield an extra 5,200 persons over a 20-year period; this would equate to around 2,300 households based on the average household size of 2.26 persons that is projected for Bath HMA in 2036.
21. In establishing the housing target, it is also appropriate to consider the likely impact of the changes to the projected average number of persons in each household on the SHMA projections:
- » **Wider Bristol:** whilst the 2012-based household projections identified that average household size would reduce from 2.31 persons in 2016 to 2.24 by 2036 (a fall of 0.07 persons), the 2014-based projections identify that the reduction will probably be less than 0.05 persons over the same period; preliminary analysis of the underlying data suggests that this is likely to reduce projected household growth by around 2,000 households for Wider Bristol HMA over the 20-year period 2016-36; and
 - » **Bath:** whilst the 2012-based household projections identified that average household size would reduce from 2.32 persons in 2016 to 2.26 by 2036 (a fall of 0.06 persons), the 2014-based projections identify that the reduction will probably be around 0.04 persons over the same period; preliminary analysis of the underlying data suggests that this is likely to reduce projected household growth by around 500 households for Bath HMA over the 20-year period 2016-36.
22. Considering the combined impact of these two factors, we would anticipate the household projection for Wider Bristol HMA to reduce by around 1,200 households and the household projection for Bath HMA to increase by around 1,800 households when the latest data is factored into the analysis.
23. These are not precise calculations and they do not capture all of the possible changes (for example, changes to births and deaths associated with these additional migrants); however, they provide a reasonable estimate of the likely scale of the adjustments that will need to be incorporated within the next full update of the SHMA evidence, which is planned for Summer 2017 in advance of the JSP Examination.

Aligning Jobs and Workers

24. The assumed jobs growth was an input to the SHMA and was based on Oxford Economics 2013-based forecasts of economic growth for the West of England, applying a small uplift to the medium-high scenario such that it was consistent with the LEP target for 95,000 extra jobs over the 20-year period 2010-30. On this basis, a growth of 84,400 jobs was assumed for the 20-year period 2016-36 (74,300 in the Wider Bristol HMA; 10,100 in the Bath HMA).
- » The **Wider Bristol SHMA** concluded that sufficient workers would be available to meet this level of growth, but a surplus of workers was identified for the period 2012-16 which offset a shortfall for the period 2016-36.
 - » The **Bath SHMA** identified the need for a substantial uplift to the OAN to avoid imposing any change to commuting rates – but noted that the circularity in assumptions between the two SHMAs meant that this was implicitly based on a policy-led jobs target.

25. The LEP has updated the economic forecast information available, and the Oxford Economics 2015-based medium-high scenario (with the same small uplift of 1.1%) identified a growth of 82,500 jobs across the West of England over the 20-year period 2016-36. The detailed assumptions on employment rates and the broad demographic structure of the population are also consistent between the SHMA and the updated Oxford Economics 2015-based medium-high scenario. Whilst the total growth is marginally lower than the level of jobs growth that was assumed for the SHMA, the figures are broadly consistent – but the balance between HMAs has changed: a growth of 73,700 jobs now forecast for Wider Bristol (a reduction of 1%) and 8,800 jobs for Bath (a reduction of 13%). Nevertheless, as this is “policy off” it forms a more appropriate basis for establishing OAN.
26. It is also important to recognise that jobs growth for the period 2012-16 is notably higher in the 2015-based data than was identified by the 2013-based forecast – but as these differences are based on estimates of actual change, the increase in jobs has already been matched with an equivalent increase in workers. On this basis, the surplus of workers for the period 2012-16 identified by the Wider Bristol SHMA has already been absorbed by the higher than forecast increase in jobs; so as a consequence, the shortfall in workers identified by the analysis for the period 2016-36 will now need to be addressed. Therefore, when the SHMA evidence is fully updated in Summer 2017, this will not assume there to be any surplus (or shortfall) of workers as at the 2016 base date and will focus on aligning jobs and workers during the JSP period.
27. Figure 2 considers the balance between future jobs and workers based on the 2015-based forecast and the likely number of future workers, taking account of the SHMA evidence and likely changes to migration that will be factored in to the projections.

Figure 2: Balancing future jobs and workers

	Wider Bristol HMA	Bath HMA	TOTAL
JOBS			
Forecast change in total employment 2016-36	73,700	8,800	82,500
LESS Jobs fulfilled by workers commuting to the HMA (based on commuting rates from the 2011 Census)	-9,900	-2,800	-12,700
LESS Impact of local workers with more than one job	-5,000	-700	-5,700
Extra local workers needed to balance with future jobs	58,800	5,300	64,100
WORKERS			
Projected change in economically active population 2016-36	65,200	4,600	69,800
PLUS Additional economically active population as a consequence of increased migration	+1,100	+2,200	+3,300
LESS Workers commuting to jobs outside the HMA (based on commuting rates from the 2011 Census)	-6,600	-1,900	-8,500
Projected increase in local workers	59,700	4,900	64,600
BALANCING JOBS AND WORKERS			
Extra local workers needed to balance with future jobs	58,800	5,300	64,100
LESS Projected increase in local workers	-59,700	-4,900	-64,600
Shortfall (or surplus) of local workers	-900	+400	-500
Uplift in housing need to balance jobs and workers	-	400	400

28. Once again, this is not intended to be a precise calculation; however, it provides a reasonable overview of the alignment between jobs and workers and the scale of any uplift to OAN that is likely to be needed.
- » **Wider Bristol:** there is now a closer alignment between jobs and workers in Wider Bristol HMA. Whilst the original SHMA identified 5,400 more workers than jobs, the above analysis suggests that the difference is now only 900; however, as there will already be enough workers for the likely increase in jobs in the Wider Bristol HMA, there is no need to further increase the OAN; and
 - » **Bath:** there is also a closer alignment between jobs and workers in Bath HMA. Whilst the original SHMA identified 3,200 fewer workers than jobs, the above analysis suggests that the difference is now only 400; therefore, given this likely shortfall of workers in Bath HMA, there is now a need to increase the OAN by around 400 dwellings.
29. A detailed analysis will be incorporated within the next full update of the SHMA evidence, which is planned for Summer 2017 in advance of the JSP Examination.

Reviewing the Evidence from Business West

30. As previously noted, Business West presented an alternative housing need assessment prepared by Professor Glen Bramley as part of their consultation feedback. Whilst the approach taken by this assessment is very different to the SHMA and the PPG advice, it provides an interesting alternative perspective which is helpful to consider further.
31. The analysis is fundamentally based on future economic growth, which forecasts an extra 83,200 jobs for the Wider Bristol HMA over the period 2016-36. This compares to the increase of 73,700 jobs used above, based on a small uplift to the medium high scenario from the Oxford Economics 2015-based forecast. Oxford Economics consider there to be a 10% probability that the medium high scenario can be achieved; their baseline forecast is 44,200 jobs and their high scenario forecast (which has a 5% probability) yields 102,100 extra jobs. On this basis, whilst a growth of 83,200 jobs falls within the Oxford Economics range, there would only be a probability of between 5% and 10% of this being achieved.
32. Accepting this context, the modelling analysis considers the likely impact of different housing targets; adopting a baseline scenario of 85,000 dwellings (based on the Wider Bristol OAN). The model suggests that this target would result in 74,200 housing completions (12.8% below the target) together with an increase of around 80,800 households, 179,300 persons and 63,200 workers. On this basis, a target of 85,000 dwellings would lead to a shortfall of around 20,000 workers (based on the ambitious jobs growth assumed) which would therefore impact on commuting patterns; but this doesn't appear to take account of likely future changes to economic activity rates.
33. The SHMA analysis shows that when the changes to economic activity rates that are currently forecast by the Office for Budget Responsibility are factored into the analysis, an increase of 65,200 workers (2,000 more than in the baseline scenario from the Bramley model) is likely to be achieved given overall population growth of 146,100 persons (33,200 fewer than in the baseline scenario). Therefore, future changes to economic activity mean that there will be far more workers available within the existing population. As a consequence, the population needs to grow less than suggested by the Bramley model.
34. Based on 74,200 dwelling completions and population growth of 179,300 persons, the analysis presented by Professor Bramley suggests that there would be a significant adverse impact on a number of relevant housing indicators. Nevertheless, this is based on circumstances which are fundamentally different to those identified by the SHMA; given that 10,800 fewer dwellings and 33,200 more people are assumed.

35. A number of alternative scenarios are presented, and it is notable that the model suggests that increasing the housing target to 142,400 dwellings (a further 57,400 dwellings, equivalent to an uplift of 67.5%) would actually yield only 94,300 housing completions (33.8% below the target); so whilst increasing the target might increase supply to some extent, there would also be a far larger amount of non-implementation. On this basis, it would seem appropriate to focus on maximising delivery rather than simply adopting an ever higher target. Another scenario sets out a possible mechanism for achieving this, which is based on a substantial increase in social housing that is not dependent on market-led development. This suggests a target of 124,800 could deliver 103,500 dwellings (17.0% below target) and has the best outcome in terms of housing indicators – yet this is predicated on even higher population growth (190,100 persons, 44,000 more than the SHMA).
36. Whilst the precise impact cannot be determined, if an extra 190,100 persons coupled with the delivery of 103,500 dwellings would have a reasonable outcome in terms of the housing indicators (recognising that this included a real increase in social housing delivery) then it would seem fair to suggest that an extra 146,100 persons coupled with the delivery of 79,600 dwellings (so both being reduced by 23.1%) would have a similar outcome in terms of the housing indicators (with a continued need for extra social housing). This was essentially what the SHMA concluded: the demographic projections identified 146,100 persons and the baseline housing need based on this demographic projection was 79,900 dwellings.
37. To summarise:
- » This assessment assumed a higher level of jobs growth than the SHMA (83,200 cf. 73,700) and whilst this falls within the Oxford Economics range, it has a very small probability of being achieved;
 - » Future changes to economic activity rates were not considered, so the model was based on much higher rates of overall population change yet still yielded a lower number of additional workers;
 - » The model suggests that increased housing targets would lead to far higher levels of non-implementation, though proposed that this could be countered to an extent with a substantial increase in social housing that was not dependent on market-led development; and
 - » The ratio of population growth to housing in the scenario with the best outcome for housing indicators is consistent with the ratio of population growth to housing identified by the SHMA.
38. On this basis, it seems likely that with a consistent jobs target and a consistent approach to changing economic activity rates, this model would probably provide similar results to those originally concluded by the SHMA.

Reviewing the Response to Market Signals

39. The Wider Bristol SHMA and Bath SHMA considered the relative market signal indicators for the respective housing market area, similar demographic and economic areas, and nationally. Both SHMAs recognised that there is no single formula that can be used to consolidate this information; but whilst there is no definitive guidance on what level of uplift is appropriate, there are useful precedents that have been established by Inspectors' decisions elsewhere which can be considered.
40. Given the context at the time, the Wider Bristol SHMA concluded:

On balance we would recommend that the overall uplift was at least 5% but no more than 10% of the housing need identified based on the household projections ... We believe that the mid-point of this range, an uplift of 5,886 dwellings, provides an appropriate response to market signals.

41. Some consultation responses suggested that this proposed response to market signals was inadequate, and that an uplift of a different order of magnitude should be considered – but those proposing the largest increases (of 50% or more) were focussed primarily on the housing target rather than the OAN, with the uplift largely intended to mitigate the impact of non-delivery.
42. Further precedents have also emerged since the original Wider Bristol SHMA was prepared. The Inspector examining the Gloucester-Cheltenham-Tewkesbury Joint Core Strategy recently proposed that an uplift of 10% should be applied across the whole area; with 5% attributed to jobs and counted within the OAN, and a further 5% included as part of the housing requirement to help deliver affordable housing. Cambridge city has also proposed a 30% uplift; but this was alongside a 10% uplift for South Cambridgeshire district, which therefore yields a combined uplift of around 18% across the two areas.
43. The housing market indicators for the Wider Bristol HMA identify considerably less housing pressure than Cambridge, where the 2013 lowest quartile house price affordability ratio was 10.3x (9.5x for the Cambridge and South Cambridgeshire combined area) compared to a ratio of 7.3x for Wider Bristol HMA and 6.5x for England. Given that PPG notes that *“The more significant the affordability constraints ... the larger the additional supply response should be”* it would be fair to conclude that if a response of 18% was reasonable for Cambridge and South Cambridgeshire, then such a high response could not be justified for Wider Bristol HMA. Nevertheless, the ratio for Gloucestershire was 7.2x which is evidently comparable with the Wider Bristol figure.
44. Given this context, we continue to recommend that the overall uplift for Wider Bristol HMA should be *“at least 5% but no more than 10%”*; and given that we have demonstrated that there is already alignment between jobs and workers across the West of England, any adjustment would respond exclusively to affordability and other housing market indicators. Nevertheless, in the context of the consultation responses received and the wider context set out above, we would suggest that the upper-end of the proposed range should be adopted for establishing the OAN in order to minimise any disagreement at the JSP Examination. Furthermore, this would avoid the OAN for Wider Bristol HMA reducing as a consequence of likely changes to the population and household projections.
45. An uplift of 10% above the housing need identified based on household projections should enable more households to form independently, but it may also lead to higher levels of migration with more people moving to the area – and this could have consequences for the balance between jobs and workers. The analysis has already identified that it is likely there will be a larger increase in workers than jobs (based on trend-based projections and the aspirational, medium high jobs growth scenario); and whilst a further increase in workers could support even higher jobs growth, there would be an inevitable increase in net out-commuting, reduced economic activity or increased unemployment if those jobs were not created.
46. The Bath SHMA was completed more recently, and that study concluded:
- The response to Market Signals across the Bath HMA as a whole should be more than 10% ... we would propose an overall uplift of 15%*
47. Given that the 2013 lowest quartile house price affordability ratio for Bath HMA was 9.1x it is reasonable to suggest that the market signals response should be larger than for Wider Bristol HMA; and the proposed response of 15% remains appropriate in the context of the existing precedents.

Housing Backlog

48. As there will be a full update of the SHMA evidence in Summer 2017, there won't be any need to consider the period 2012-16. Household projections will be prepared using an estimate of the existing population resident in Wider Bristol HMA and Bath HMA as at mid-2016; and, as previously noted, the alignment between jobs and workers will also focus on the JSP period and not assume there is any surplus or shortfall of workers in 2016.
49. However, consistent with the Planning Advisory Service Good Plan Making Guide¹, the SHMA will continue to count any "unmet need for housing that still exists at the start of the new plan period" but will not include any "under-provision from a previous plan period".

Housing for Older People

50. The SHMAs both identified that the OAN did not include the projected increase of institutional population, which represented a growth of 4,484 persons in Wider Bristol HMA and 786 persons in Bath HMA; a total of 5,270 persons across the West of England over the 20-year JSP period 2016-36. This increase in institutional population is a consequence of the CLG approach to establishing the household population², which assumes "that the share of the institutional population stays at 2011 levels by age, sex and relationship status for the over 75s" on the basis that "ageing population will lead to greater level of population aged over 75 in residential care homes".
51. Whilst these additional 5,270 persons aged 75 or over living in communal establishments are not counted as part of the OAN; an allowance is made for the dwellings that would be vacated by many of these people. Not all would vacate dwellings, as some will have a partner or other family remaining in the home; but further analysis of the data (assuming no growth in the institutional population) shows that overall housing need would be 3,706 dwellings higher in Wider Bristol HMA and 650 dwellings higher in Bath HMA if the additional bedspaces were not provided – so it is important to take account of these needs.
52. When considering housing supply, PPG states the following in relation to housing for older people:

How should local planning authorities deal with housing for older people?

Older people have a wide range of different housing needs, ranging from suitable and appropriately located market housing through to residential institutions (Use Class C2). Local planning authorities should count housing provided for older people, including residential institutions in Use Class C2, against their housing requirement. The approach taken, which may include site allocations, should be clearly set out in the Local Plan.

Planning Practice Guidance (March 2014), ID 3-037

53. On this basis, given that housing provided for older people in Use Class C2 should be counted against the housing requirement, it is important that this need is also factored in when the housing target is established. Furthermore, as older people are living longer, healthier lives, and the Government's reform of Health and Adult Social Care is underpinned by a principle of sustaining people at home for as long as possible, it does not necessarily follow that all of the increase in institutional population should be provided as additional bedspaces in residential institutions in Use Class C2; specialist older person housing such as Extra Care may be more appropriate for the needs of some of these older people.

¹ <http://www.pas.gov.uk/documents/332612/6363137/Pages+from+FINAL+PAS+Good+Plan+Making+-6.pdf>

² Household Projections 2012-based: Methodological Report, Department for Communities and Local Government, February 2015

54. Therefore, for the purposes of establishing the housing target, it is necessary to take account of those dwellings that were assumed to be vacated by people moving into care. This would allow the supply of bedspaces in residential institutions in Use Class C2 to be counted against the housing requirement; providing that this was calculated on the basis of the number of dwellings likely to be vacated in the housing market.
55. Based on the SHMA analysis, an increase of 5,270 persons in the institutional population living in care would have released 4,355 dwellings across the West of England over the 20-year JSP period 2016-36. Recent market analysis by Knight Frank³ suggests care home occupancy rates at around 88%, which would imply that 5,989 additional bedspaces would be needed to accommodate an increase of 5,270 persons. On this basis, providing 5,989 care home bedspaces would release 4,355 dwellings in the housing market – a ratio of 1.37 bedspaces per dwelling.
56. Given this context, the housing target should take account of the need of these older people and 4,355 dwellings should be included in addition to the OAN; although the SHMA update may change this figures marginally. Bedspaces in care homes would then be able to be counted towards the housing requirement, on the basis of 1 dwelling being counted for every 1.37 bedspaces provided.

Affordable Housing Need

57. The SHMAs have both identified a substantial need for affordable housing: a total of 32,200 dwellings for the West of England over the 20-year Plan period 2016-36. PPG identifies that Councils should also consider *“an increase in the total housing figure included in the local plan”* where this could *“help deliver the required number of affordable homes”*.
58. However, this should be considered in the context of what Mr Justice Dove said in his Judgement for the Borough Council of Kings Lynn and West Norfolk v Elm Park Holdings Ltd (paragraphs 35-36):
- “The Framework makes clear these needs should be addressed in determining the FOAN, but neither the Framework nor the PPG suggest that they have to be met in full when determining that FOAN. This is no doubt because in practice very often the calculation of unmet affordable housing need will produce a figure which the planning authority has little or no prospect of delivering in practice.”*
59. With regard to the PPG, Mr Justice Dove explicitly notes that this should be the *“consideration of an increase to help deliver the required number of affordable homes, rather than an instruction that the requirement be met in total”*. Given the scale of affordable housing need identified, the Councils must consider the justification for *“an increase in the total housing figure included in the local plan”*; however, as the Inspector examining the Cornwall Local Plan noted in his preliminary findings:
- “National guidance requires consideration of an uplift; it does not automatically require a mechanistic increase in the overall housing requirement to achieve all affordable housing needs based on the proportions required from market sites.”*
60. As affordable housing delivery will typically form a proportion of open-market schemes, it is reasonable to assume that higher overall housing delivery will also yield a higher amount of affordable housing. On this basis, the Inspector examining the Gloucester-Cheltenham-Tewkesbury Joint Core Strategy proposed an uplift of 5% should be applied to help deliver more affordable housing – concluding that the benefits would outweigh the harms. Nevertheless, whilst the OAN for that area had included a 5% uplift to help align jobs and workers, there was no further uplift in response to affordability pressures and other market signals.

³ <http://content.knightfrank.com/research/548/documents/en/2015-3267.pdf>

61. For the West of England, we have proposed that the OAN for Wider Bristol HMA includes an uplift of 10% and that the OAN for Bath HMA includes an uplift of 15%; both responding to affordability and market signals, given sufficient workers had already been identified across the West of England based on the trend-based demographic projections and the aspirational, medium high jobs growth scenario. These uplifts will already contribute to increasing the supply of affordable homes through market-led housing developments.
62. Whilst these uplifts should also enable more households to form independently, they could lead to more people moving to the area – affecting the balance between jobs and workers. As previously noted, any increase in workers could support even higher jobs growth; but without these jobs, there would be an inevitable increase in net out-commuting, reduced economic activity or increased unemployment. For these reasons, we would not recommend any further increase to the overall housing number – but any specific initiatives to help deliver extra affordable housing should be prioritised as far as possible within the planned housing provision.

Establishing the Housing Target

63. The housing target for the West of England has been established based on the combined OAN for Wider Bristol HMA and Bath HMA, together with the necessary adjustments to take account of older people assumed to be moving into care. This incorporates the likely changes to the OAN set out in previous sections of this paper, and a detailed analysis of these figures will be provided by the next full update of the SHMA evidence (planned for Summer 2017 in advance of the JSP Examination).
64. This housing target assumes that the combined OAN for Wider Bristol HMA and Bath HMA will be met in full within the West of England, and that there will be no unmet needs from other housing market areas that need to be accommodated. Figure 3 sets out the key elements of the calculation.

Figure 3: Establishing the Housing Target for the West of England JSP 2016-36

Stage		Wider Bristol HMA	Bath HMA	TOTAL
Housing need based on SHMA household projections		78,500	9,300	87,800
Estimated impact of...	Changes to migration	+800	+2,300	+3,100
	Changes to average household size	-2,000	-500	-2,500
Housing need based on updated household projections		77,300	11,100	88,400
Further adjustments needed...	In response to balancing jobs and workers Additional dwellings to ensure alignment between planned jobs growth and projected growth in workers	0	400	400
	In response to market signals Dwellings needed (including the specific adjustment for concealed families and homeless households)	10% x 77,300 = 7,700	15% x 11,100 = 1,700	9,400
Combined impact of the identified adjustments		7,700	1,700	9,400
Updated OAN for the JSP period 2016-36		85,000	12,800	97,800
Allowance for dwellings assumed to be vacated by older people moving into care		3,700	700	4,400
Further uplift to help deliver the identified affordable housing need		The uplift applied in response to market signals will already incorporate this		
Housing Target for the JSP period 2016-36		88,700	13,500	102,200

65. Based on the elements set out above, the housing target for the West of England is likely to be around 102,200 dwellings; but it is important to recognise that there is the potential for a small margin of error either way, given that some of the numbers are based on likely estimates and the final numbers will not be known until the next full update of the SHMA(s).
66. On this basis, it would be sensible for the JSP to be developed in the context of a possible small increase or a small reduction in the housing target identified above. It is likely that any changes would account for a small percentage of the overall figure at this stage, and therefore we would propose a range of between 100,000 and 105,000 dwellings. **We would therefore recommend that the JSP should plan for a housing target of up to 105,000 dwellings, which will be finalised when the SHMA is updated in Summer 2017.**
67. Providing up to 105,000 dwellings is likely to yield sufficient workers for up to 10,000 more jobs than forecast by the Oxford Economics 2015-based medium high scenario; although this will depend on the balance between more households forming independently and changes to net migration. On this basis, the housing target could support even higher jobs growth than is currently planned for; so there is sufficient contingency for economic activity rates changing at a slower pace than currently envisaged by the OBR, the extent of double jobbing and any changes in the balance between full- and part-time working. However, there is a risk that the housing target could lead to an increase in net out-commuting or increased unemployment if sufficient new jobs were not created; so unless there was a change to the underlying evidence, we would caution against a housing target that was any higher than the 105,000 dwellings currently proposed.
68. Finally, it is important to recognise that this housing target represents the number of dwellings that need to be delivered across the West of England over the 20-year JSP period 2016-36. Therefore, based on feedback to the consultation, the JSP should consider the best way for flexibility to be included within the Housing Target to ensure that the JSP is able to successfully deliver the identified housing target.

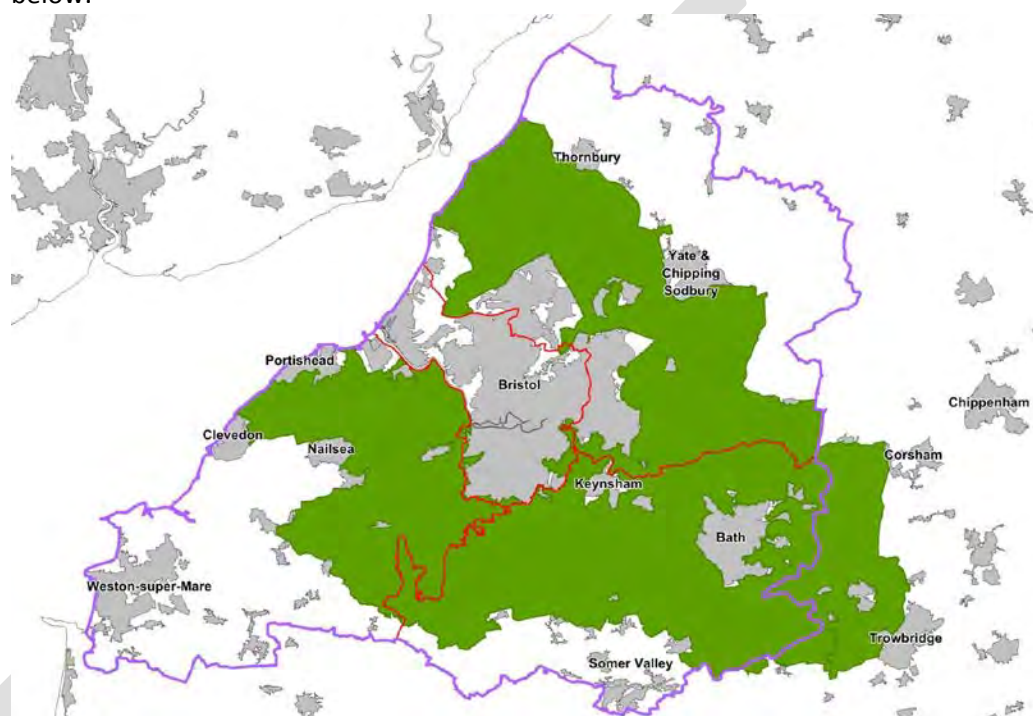
Joint Spatial Plan

Green Belt appraisal

September 2016

Introduction

1. The Bristol-Bath Green Belt was originally established in the mid-1950s and covers nearly half of the JSP plan area; it comprises 63,742 hectares within the West of England. In addition, it extends into Wiltshire and Somerset. The extent of the Green Belt is shown below.



2. The government's approach to Green Belt is set out in the NPPF; the key passages are as follows:

'The government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open' (paragraph 79).

'Green Belt serves five purposes:

- *To check the unrestricted sprawl of large built-up areas;*
- *To prevent neighbouring towns merging into one another;*
- *To assist in safeguarding the countryside from encroachment;*
- *To preserve the setting and special character of historic towns; and*
- *To assist in urban regeneration, by encouraging the recycling of derelict and other urban land' (paragraph 80).*

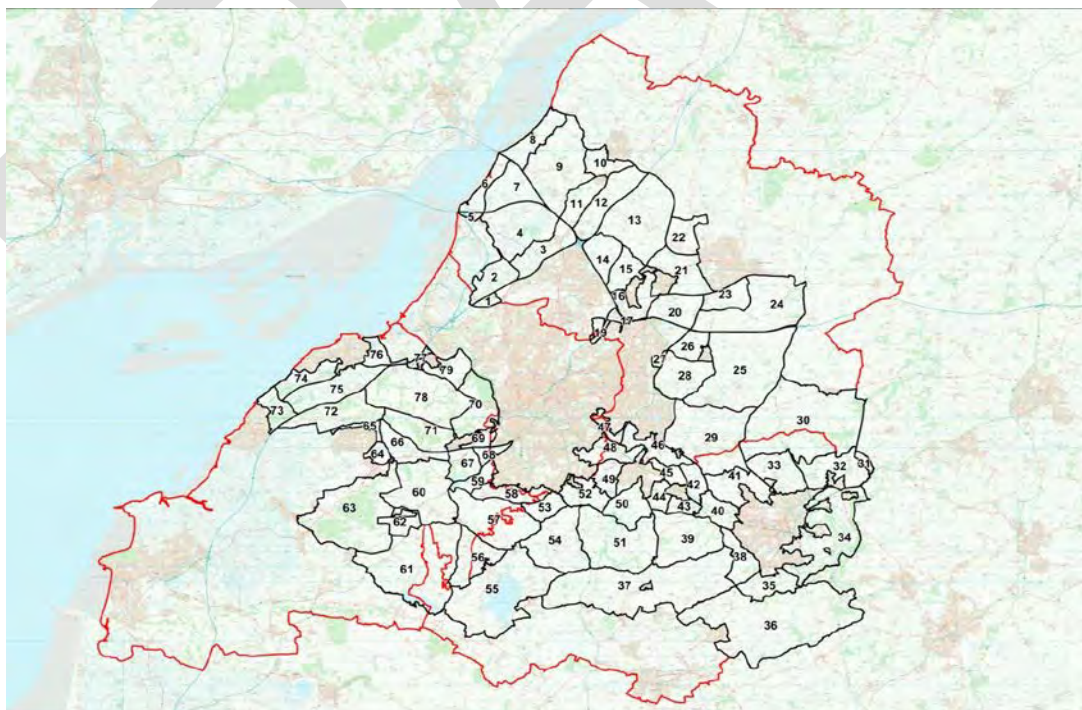
'Once established, Green Belt boundaries should only be altered in exceptional circumstances, through the preparation or review of the Local Plan' (paragraph 83).

'When drawing up or reviewing Green Belt boundaries local planning authorities should take account of the need to promote sustainable patterns of development. They should consider the consequences for sustainable development of channelling development towards urban areas inside the Green Belt boundary, towards towns and villages inset within the Green Belt or towards locations beyond the outer Green Belt boundary' (paragraph 84).

3. National guidance clearly emphasises the importance of Green Belts, their five purposes and that they should only be altered in exceptional circumstances. Where such circumstances have been demonstrated, paragraph 84 sets out the approach to be followed.
4. The preparation of the JSP requires an evidence base which assesses the role and function of the existing Green Belt, which, alongside other evidence, will help inform choices about the form and location of new development. The JSP approach to the assessment of Green Belt reflects national best practice. A two stage approach was undertaken. The first stage examined the Green Belt in the West of England as a whole and determined whether identified cells served one or more of the purposes of Green Belt as set out in the NPPF. The second stage examined specific smaller parcels of land to determine their contribution to serving one or more of a selection of Green Belt purposes.

Stage 1 appraisal (November 2015)

5. The Green Belt was divided into 79 cells to provide manageable areas for assessment (see plan below). In general smaller cells were identified adjacent to the built-up areas to provide a finer grain assessment. Clear physical features were used wherever possible to define the cells.



6. Each of the cells was assessed against the five green belt purposes.

7. The overall conclusion of the stage 1 was that the Green Belt continues to retain the fundamental characteristic of openness and serves the purposes of Green Belt. assessment The conclusions in respect of the five purposes are reproduced below.

'Sprawl of large built up areas

The cells closest to the large built up areas of Bristol and Bath all directly serve the purpose of checking the unrestricted sprawl of these large built up areas. No areas of significant urban development have been identified in those cells. All cells maintain open, undeveloped land at the edge of these large built-up areas.

Prevent neighbouring towns merging

Cells between a number of settlements perform the role of preventing neighbouring towns merging into one another. These include the cells in the following corridors:

- *Bristol, Keynsham, Saltford and Bath;*
- *Bristol, Winterbourne/Frampton Cotterell/Coalpit Heath, Yate/Chipping Sodbury;*
- *Bristol and Thornbury*
- *Bristol Port/Bristol urban area and Portishead;*
- *Bristol, Long Ashton and Nailsea/Backwell*
- *Portishead and Clevedon*
- *Bath, Bradford on Avon and Trowbridge (outside the plan area)*

Safeguarding countryside from encroachment

The description of each cell notes the dominance of countryside and the rural character of the areas. Most cells were identified as serving the purpose of safeguarding the countryside from further encroachment.

Preserving the setting and special character of historic towns

All the cells surrounding the City of Bath (World Heritage Site) serve the purpose of preserving the setting and special character of historic towns. Cell 70, which provides a prominent open setting to the west of the group of conservation areas of central Bristol and Clifton, was also noted as serving this purpose. In many locations it was noted in the cell assessment that the Green Belt assisted in preserving the setting of designated Conservation Areas.

Assist in urban regeneration

The role of the Green Belt in assisting urban regeneration is supported by policies in Local Plans which have regeneration objectives. All cells were identified as assisting in urban regeneration as they collectively encourage the recycling of derelict and other urban land in Bristol (including Avonmouth/Sevenside), Bath and the other settlements surrounded by Green Belt. The cells closest to the regeneration areas of south Bristol were specifically identified in the assessment matrix.

8. The findings for each of the purposes are mapped at Appendix A. This simply indicates whether individual cells served the respective Green Belt purpose or not. It is not meaningful to aggregate the layers as the Green Belt purposes are distinct and not cumulative.

Stage 2 appraisal (September 2016)

9. The stage 1 assessment confirmed that all of the 79 cells performed two or more of the purposes of the Green Belt. In order to obtain a greater understanding of the consequences of any changes to Green Belt designation the stage 2 assessment considered the degree of contribution particular areas make to Green Belt purposes.
10. The stage 2 assessment focussed on those areas identified as potential strategic development locations, and identified smaller cells for assessment (151 cells assessed). These stage 2 cells were ranked as to whether they made a 'major contribution, a 'contribution' or a 'limited contribution' to Green Belt purposes. The aim of the assessment was to determine an overall contribution rank based on a combination of assessments against each relevant Green Belt purpose.
11. For each of the Green Belt purposes a number of indicators were identified to assist in the assessment process and an approach agreed for determining which of the three ranks would apply and how to determine the overall contribution. The details are set out in the stage 2 report. In all cases a cell is only assessed and ranked against a Green Belt purpose if its stage 1 cell was identified as serving that purpose. The assessment does not attempt an aggregate or cumulative rating for cells.
12. It was not considered meaningful to attempt to establish variations in contribution for cells performing the 'assist' functions (3 and 5) which were applicable to most or all cells in the stage 1 assessment. The stage 2 assessment only assigns a 'contribution' or 'limited contribution' against purpose 3 as this purpose is equally applicable to most cells in the plan area. No assessment of stage 2 cells is made against purpose 5 which is considered to be applicable to the Green Belt as a whole.
13. The map at Appendix B illustrates the ranking of the assessed cells (the remaining areas of Green Belt are shown in grey as they did not form part of the stage 2 assessment). Most cells were assessed as making a 'contribution' or 'major contribution' to meeting Green Belt purposes. 12 cells in four separate locations were assessed to make a limited overall contribution.
14. The conclusion of the stage 2 assessment was that most Green Belt cells close to settlements make either a 'contribution' or 'major contribution' to Green Belt purposes. NPPF states that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open. Most cells adjacent to both the Bristol and Bath urban areas make a 'major contribution' to Green Belt purposes by checking the sprawl of the urban area and in a number of locations by contributing to preventing the merger of neighbouring towns.
15. Considering cells in combination, no substantial areas have been identified as making a 'limited contribution' to Green Belt purposes. There are no extensive tracts of land which, notwithstanding their current Green Belt status, have been shown to be unnecessary to keep permanently open by reason of their limited contribution to Green Belt purposes. The conclusion that 12 cells only make a 'limited contribution' indicates that it may be unnecessary to retain these cells within the Green Belt. However the assessment does not suggest that they are necessarily suitable for development in the event of an amendment to

the Green Belt boundaries; all or part of these cells may be valued for other reasons such as landscape or open space.

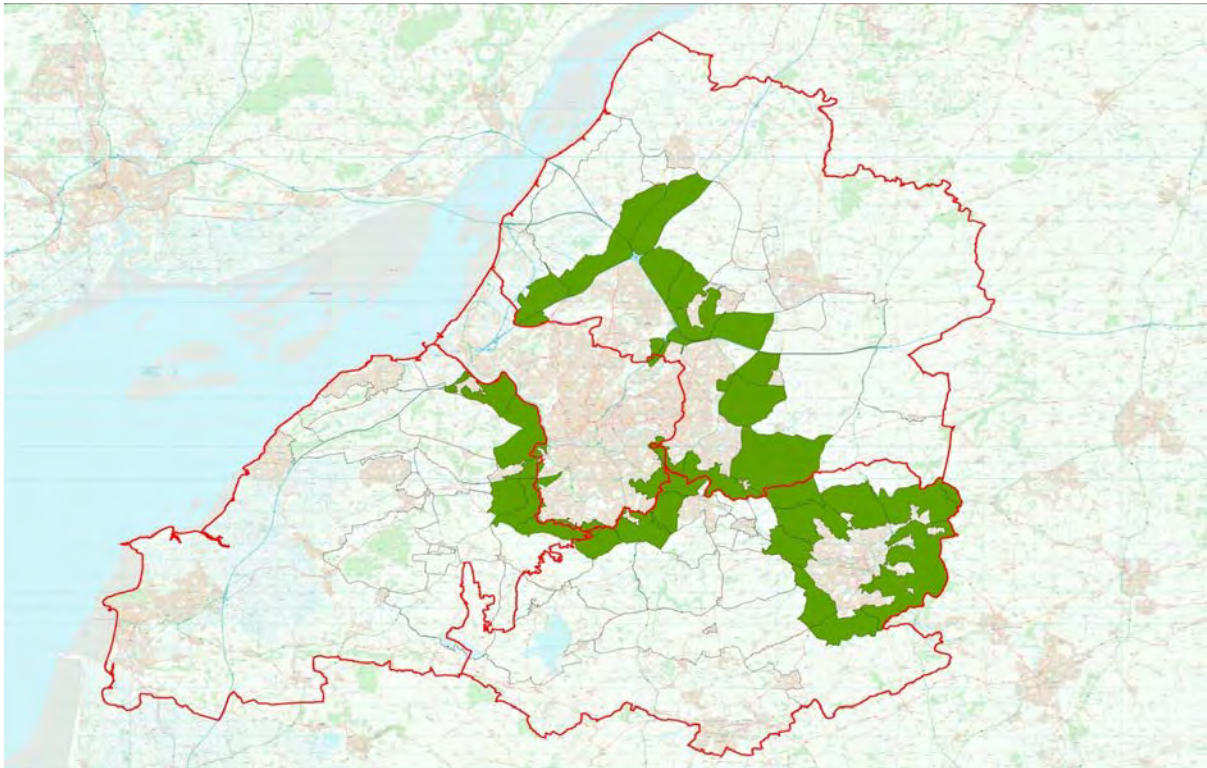
Conclusions

16. The stage 1 assessment confirmed that the Bristol-Bath Green Belt continues to retain the fundamental characteristic of openness and serves the purposes of Green Belt. The stage two assessment considered the contribution to which smaller cells at the strategic locations served one or more of the Green Belt purposes. Most of the cells in the stage 2 assessment were identified as making a 'contribution' or 'major contribution' to meeting Green Belt purposes.
17. 12 cells were assessed as making a 'limited' contribution. These cells are relatively small in scale. They do not comprise locations of significant scale in which Green Belt purposes are not served and where, consequently, boundaries could be amended in order to enable strategic development. However, the four authorities may wish to consider whether it is necessary to continue to include the cells in the Green Belt when determining the general extent of the Green Belt in the Joint Spatial Plan or the detailed boundaries in the their Local Plans.

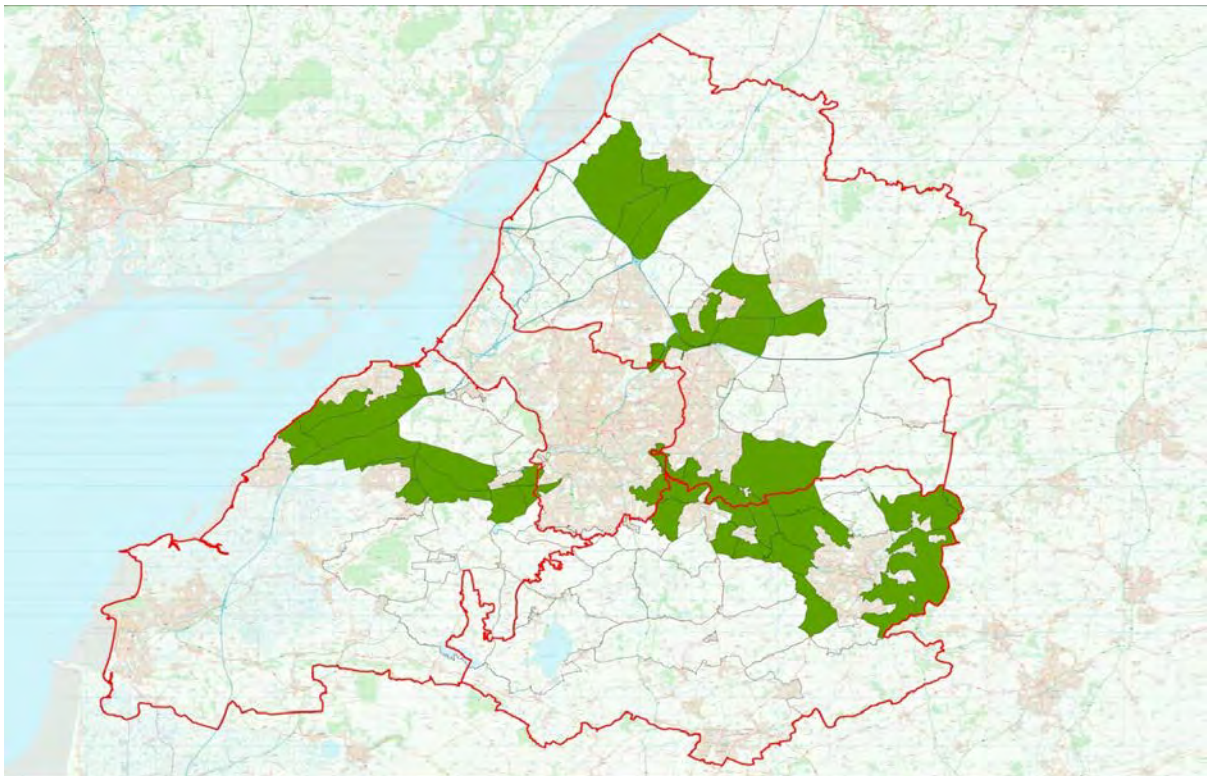
Appendix A

Stage 1 assessment: mapping of cells serving the purposes of Green Belt

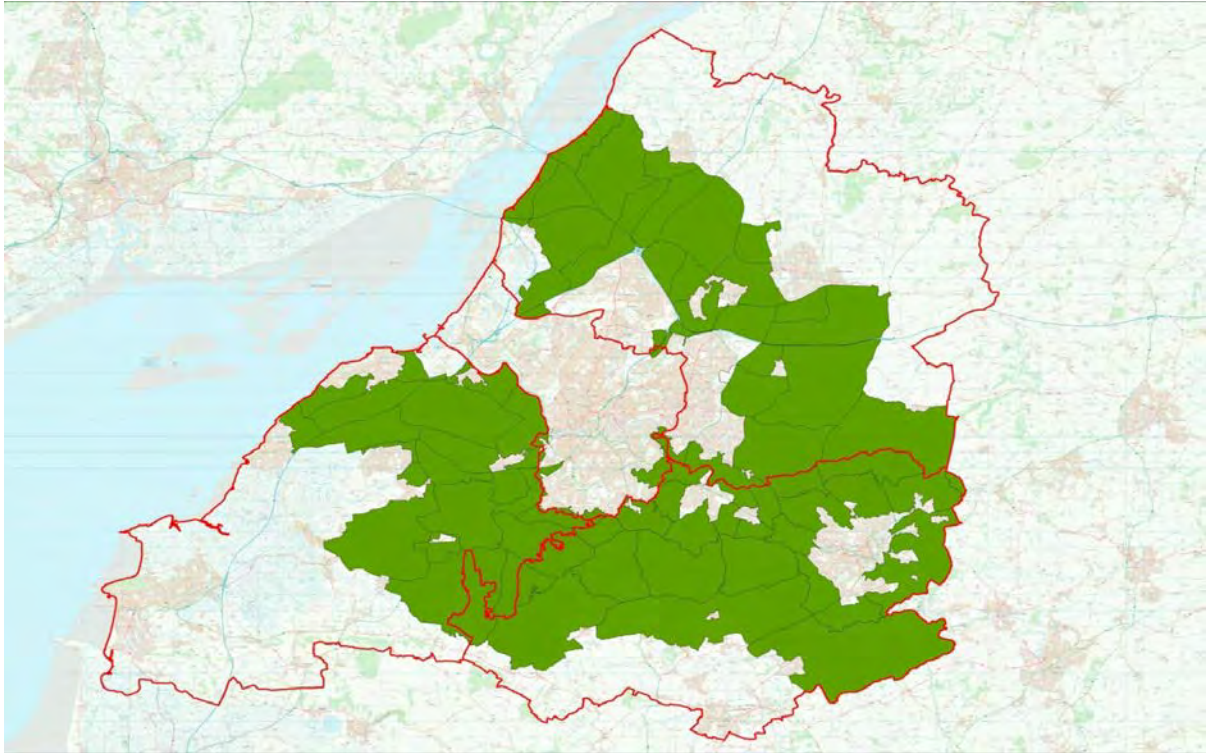
Cells serving purpose 1: Check the unrestricted sprawl of large built-up areas



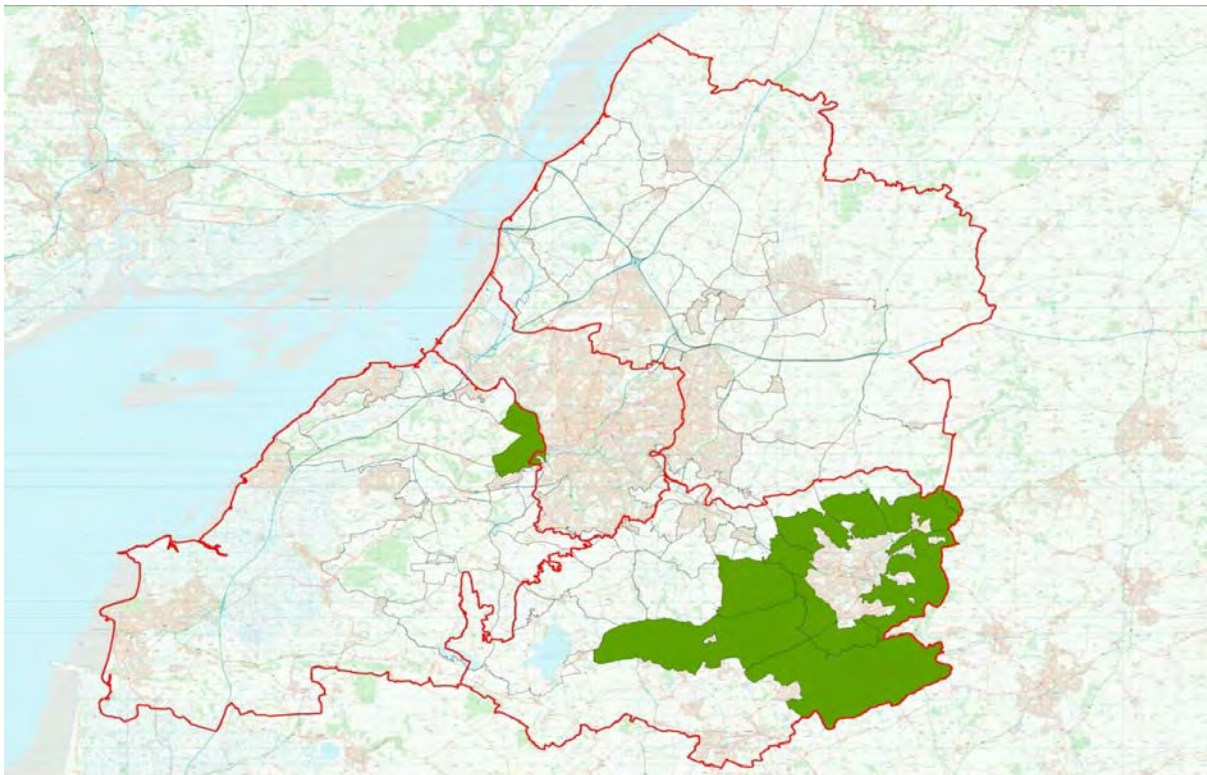
Cells serving purpose 2: Prevent neighbouring towns from merging into one another



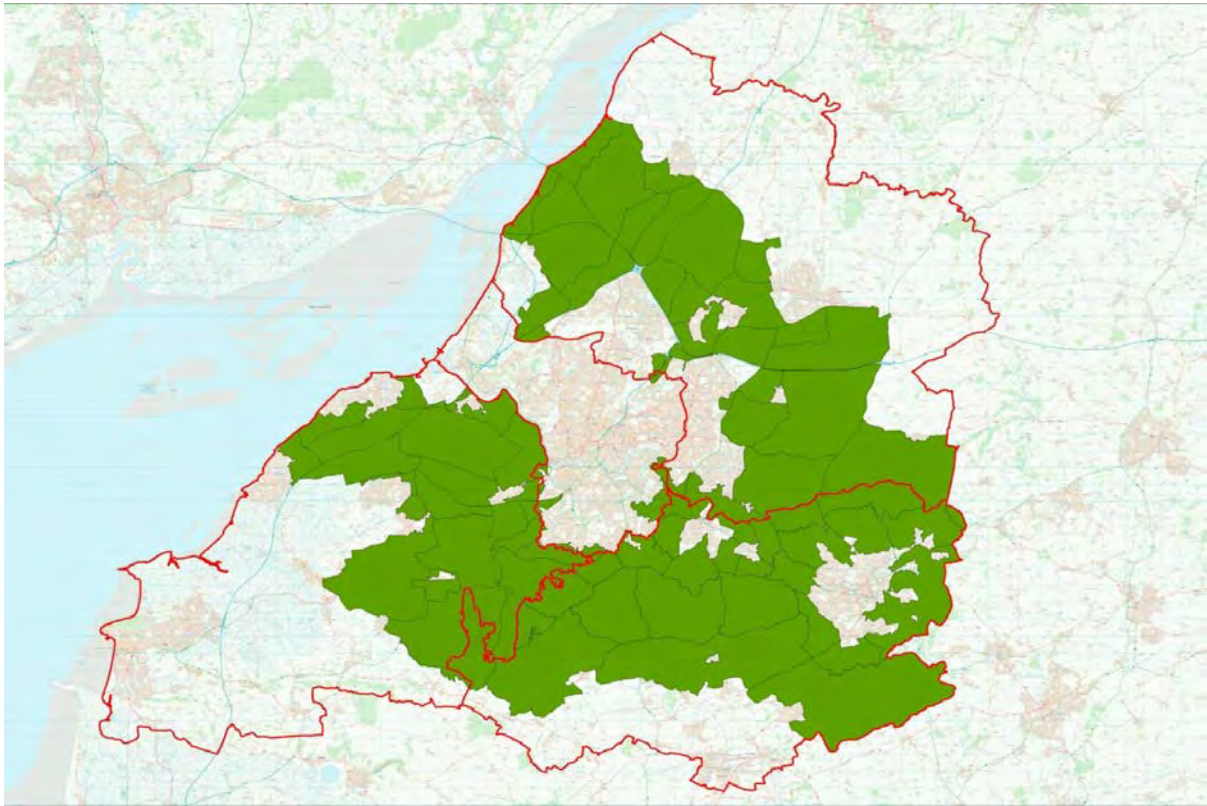
Cells serving purpose 3: Assist in safeguarding the countryside from encroachment



Cells serving purpose 4: Preserve the setting and special character of historic towns



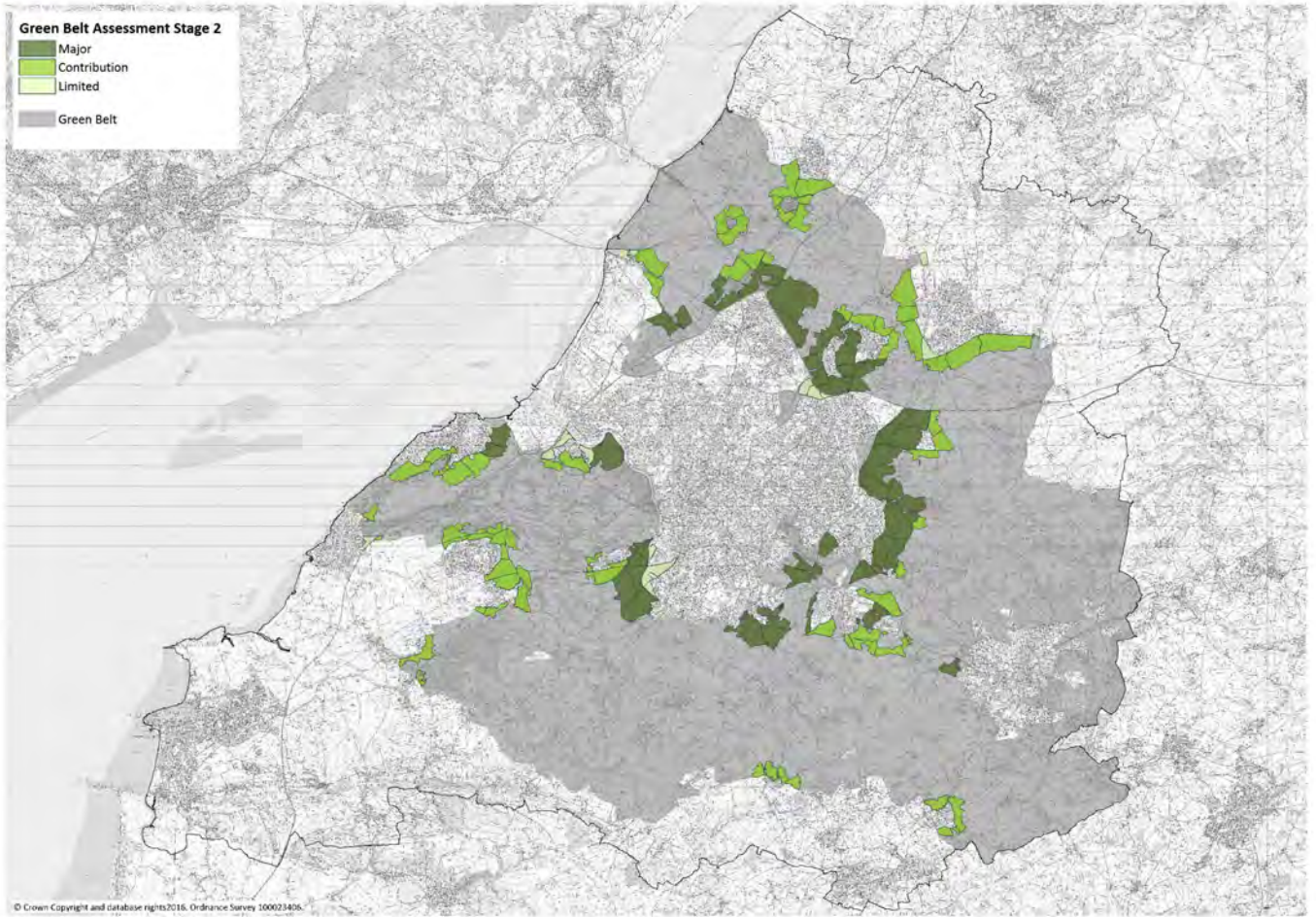
Cells serving purpose 5: Assist in urban regeneration, by encouraging recycling of derelict and other urban land



Appendix B

Stage 2 assessment: Overall contribution to Green Belt purposes

-



**Joint Spatial Plan
Sustainability Appraisal**

September 2016

Introduction

1. Sustainability appraisal (SA) is a statutory requirement for development plans. It is a process used to assess the economic, social and environmental implications of proposed planning policies to help inform the plan-making process. The intention is to promote sustainable development by better integrating sustainability considerations into the preparation of planning documents.
2. While a final sustainability appraisal report will accompany the submission plan, the SA process is used to inform and assess the decision making process as the plan evolves. An Initial SA Report was published in November 2015 alongside the JSP Issues and Options. This provided an initial high-level appraisal of the plan, and comments were invited on both the methodology and the findings.

Initial SA Report (November 2015)

3. The Initial SA Report identified five broad themes; each of which was related to a number of sustainability objectives (see Appendix A). The themes are set out below together with the number of related objectives:
 - Improve the health, safety and wellbeing of all (1a-1c).
 - Support communities that meet people's needs (2a-2f).
 - Develop a diverse and thriving economy that meets people's needs (3a-3b).
 - Maintain and improve environmental quality and assets (4a-4h).
 - Minimise consumption of natural resources (5a-5b).
4. An assessment was undertaken of each of the broad typologies and indicative strategic locations set out in the Issues and Options document in relation to the identified sustainability objectives. This created a matrix which was assessed as follows:

0	no discernible effect
-	negative effect
--	significant negative effect
+/-	mixed effect
+	positive effect
++	significant positive effect
?	uncertain effect

5. As well as identifying the effects themselves, the SA also sought to highlight opportunities for mitigation or enhancement that would enable the initial scores to be improved. For example, a location may be given a negative score because of infrastructure deficiencies but if development is of a scale sufficient to remedy those deficiencies then, subject to it doing so, the location could become a more sustainable choice.

SA of Emerging Technical Scenario (September 2016)

6. Alongside other technical work towards developing a scenario for consultation, the Issues and Options SA was expanded to look at potential strategic locations in more detail. This work is continuing as more information emerges, to ensure that all locations have been assessed to a comparable level of detail and consistently between the four UAs. In addition to this document, further information will be made available for consultation on the 7th November, 2016.
7. The SA is a tool for understanding the impacts of policy choices, highlighting potential problems and opportunities. It does not necessarily provide a definitive steer towards a preferred option. Usually there will be a mix of positive and negative effects, some of which may be judged – from outside the SA process – to be more influential than others. Some impacts will remain uncertain until proposals are more precisely defined.

Conclusions

8. The SA is a statutory requirement for development plans. It aids in the understanding of policy choices by highlighting potential problems and opportunities associated with each option.
9. Work is continuing to refine analysis to date but key messages emerging are as follows:

Social sustainability

1. Some negative social impacts, such as exposure to poor air quality, can be addressed by avoiding affected locations or by tackling the underlying environmental problems at source. Others, such as inadequate infrastructure, can sometimes be addressed through development but the larger items like secondary schools or district centres require relatively large additions to population. The greatest potential net benefits may therefore arise where capacity already exists but is under-used or can be redeployed. Placing new housing near to areas of multiple deprivation will not be of demonstrable benefit to those areas unless the development includes some element of employment / training use.

Economic sustainability

2. Urban locations or those with good accessibility are seen as most likely to be attractive for strategic economic development. There is therefore a close connection to infrastructure investment, especially transport. This encompasses such issues as congestion, resilience and the balance to be struck between building on existing advantages and developing sub-regional solutions that address current problems or create new potential.

Environmental sustainability

3. Locations with 'in-principle' objections, such as functional floodplain, were sieved-out at the start of the process of identifying suitable locations for development. The constraints that remain are therefore ones that national policy envisages as being balanced against other factors such as the need for development to be in accessible locations and to assist urban regeneration. Existing settlements are often in the same locations as the best and most versatile agricultural land and their expansion has to be balanced against its loss. Other locations may be subject to a degree of flood risk, which could be mitigated with sufficient investment but only at the expense of other demands on limited funds. Impacts on heritage, biodiversity and landscape depend heavily on the scale of development envisaged and of associated mitigation.

Appendix A

JSP SA Objectives

Theme	Sustainability Objective
Improve the health, safety and wellbeing of all	1a. Achieve reasonable access to public open space
	1b. Minimise impacts on air quality and locate sensitive development away from areas of poor air quality
	1c. Achieve reasonable access to healthcare facilities
Support communities that meet people's needs	2a. Deliver a suitable quantum of high quality housing for the West of England sub-region
	2b. Deliver a suitable mix of high quality housing types and tenures (including affordable housing) for all parts of society within the West of England sub-region
	2c. Achieve reasonable access to community facilities
	2d. Achieve reasonable access to educational facilities
	2e. Achieve reasonable access to town centre services and facilities
	2f. Reduce poverty and income inequality, and improve the life chances of those living in areas of concentrated disadvantage
Develop a diverse and thriving economy that meets people's needs	3a. Deliver a reasonable quantum of employment floorspace/land and increase access to work opportunities for all parts of society within the West of England sub-region
	3b. Achieve reasonable access to major employment areas
Maintain and improve environmental quality and assets	4a. Minimise impact on and where appropriate enhance the historic environment, heritage assets and their settings
	4b. Minimise impact on and where possible enhance habitats and species (taking account of climate change)
	4c. Minimise impact on and where appropriate enhance valued landscapes
	4d. Promote the conservation and wise use of land, maximising the re-use of previously developed land.
	4e. Minimise the loss of productive land, especially best and most versatile agricultural land.
	4f. Minimise vulnerability to tidal/fluvial flooding (taking account of climate change), without increasing flood risk elsewhere
	4g. Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere
	4h. Minimise harm to, and where possible improve, water quality and availability
Minimise consumption of natural resources	5a. Achieve reasonable access to sustainable transportation
	5b. Reduce non-renewable energy consumption and 'greenhouse' emissions, and provide opportunities to link into existing heat networks

Appendix B

Outline SA of Emerging Technical Scenario

Sustainability Objective	Commentary	Mitigation or enhancement
1a. Achieve reasonable access to public open space (Designated Open Spaces, Town and Village Greens, and Public Rights of Way)	Peripheral development can be beyond 400m walking distance of existing town spaces. Villages generally lack large open spaces. There is usually good access to the countryside via the National Cycle Network and PRowS. There is also easy access to the Cotswolds and Mendip Hills AONBs from a number of locations.	Large-scale development could include open space provision.
1b. Minimise impacts on air quality and locate sensitive development away from areas of poor air quality	Keynsham is within an AQMA. No AQMAs in the rural area, though motorways run close to some locations. There are several AQMAs in the Bristol urban area, which cover major arterial routes. There are known areas of poor air quality along Station Road in Yate.	Transport Impact Assessment and adequate preventative and mitigation measures are required.
1c. Achieve reasonable access to healthcare facilities (Doctors, Opticians, Pharmacies, Dentists, Hospitals)	Urban and peripheral locations have reasonable access to facilities. Towns and most larger villages have a range of facilities. Charfield has relatively sparse on site provision. All sites could benefit from improved access to hospitals in city locations.	Large-scale development could include healthcare provision but unlikely to achieve critical mass for new hospital. Average ambulance response / hospital access times could therefore decline.
2a. Deliver a suitable quantum of high quality housing for the West of England sub-region	Total number 37,700. Although locations are assumed to be of a strategic scale the plan period allows for reasonable lead-in times. The SA must know the housing requirement and whether the currently predicted housing capacity for this scenario is accurate before attempting to score this objective.	
2b. Deliver a suitable mix of high quality housing types and tenures (including affordable housing) for all parts of society within the West of England sub-region	Greenfield development is likely to be more viable than brownfield therefore it could provide more certainty for the delivery of suitable tenures including affordable housing. Urban intensification is very difficult to appraise given the uncertainty of locations of developments. Whilst a range of housing types can be achieved, there may be fewer opportunities for the development of new non-flatted homes (including with gardens) with urban intensification. This could limit opportunities for a mix of homes. Viability	

	issues associated with some brownfield developments may limit opportunities to secure affordable housing.	
2c. Achieve reasonable access to community facilities (post office, meeting venues, youth centres)	<p>Urban and peripheral locations have reasonable access to facilities. Towns and most larger villages have a range of facilities. Towns and most larger villages have a range of facilities.</p> <p>Severance issues at Yate where development could straddle the railway.</p> <p>Charfield contains limited facilities and would, therefore, have restricted access.</p>	Large-scale development could include community provision.
2d. Achieve reasonable access to educational facilities (primary schools, secondary schools)	<p>Urban and peripheral locations have reasonable access to facilities. Towns and most larger villages have a range of facilities but only a few villages have secondary schools, e.g. Backwell, Churchill, Thornbury, and Yate. Some primary schools are not well-located relative to potential development sites, e.g. Thornbury.</p> <p>Charfield and Banwell have primary schools but no secondary schools. Peripheral development can be beyond 1500m of existing secondary schools, e.g. Nailsea.</p> <p>School provision is very much dependent on the way the development is implemented. Notional triggers for new facilities will be met only if a future planning application meets the required quantum.</p>	Large-scale development could include educational provision but unlikely to achieve critical mass for a secondary school (5,000 homes needed as a rule-of-thumb).
2e. Achieve reasonable access to town centre services and facilities (Designated City, Town and District Centres)	<p>Peripheral development can be beyond 1500m of existing town / district centres. Urban and peripheral locations have reasonable access by improved public transport to city centres.</p> <p>Most villages are remote from district or larger centres.</p>	Large-scale development unlikely to achieve critical mass for a district centre (5,000 homes needed as a rule-of-thumb).
2f. Reduce poverty and income inequality, and improve the life chances of those living in areas of concentrated disadvantage	<p>No demonstrable link with locational strategy for housing, though employment or mixed development can provide benefits. Only urban intensification can demonstrate a positive link to deprived communities.</p> <p>The Bristol Core Strategy gives priority to the regeneration of South Bristol to include additional mixed-use development with supporting infrastructure. The regeneration of South Bristol shall no occur in isolation but as part of the integrated spatial strategy for the</p>	

	<p>area. For example, improvements to transport will enable greater access to new employment created in the city centre.</p> <p>The revitalisation of South Bristol will help address imbalances in employment opportunities and travel to work patterns across the city and region.</p>	
3a. Deliver a reasonable quantum of employment floorspace/land and increase access to work opportunities for all parts of society within the West of England sub-region	<p>Sites could deliver employment opportunities, at the cost of land for housing.</p> <p>Dispersed development is unlikely to offer the critical mass to underpin significant new employment provision and so is more likely to lead to out-commuting. More remote locations are very unlikely to be suitable or attractive commercial locations.</p>	Improvements to the strategic transport corridors could make locations more attractive for employment.
3b. Achieve reasonable access to major employment areas	<p>Locations on rail lines and radial roads offer this potential, though the potential will not be realised if there are capacity constraints or if the rail lines do not go to employment areas.</p> <p>There are some major employers in the rural area, but public transport strategy emphasises links into towns and cities rather than with the rural area beyond.</p> <p>Existing urban employment locations can be accessed via public transport. Somer Valley is also an Enterprise Zone.</p>	Improvements to the strategic transport corridors could make locations more attractive for employment.
4a. Minimise impact on and where appropriate enhance the historic environment, heritage assets and their settings	Design and scale of development are crucial. Some areas are archaeologically sensitive and the extent of the resource may be unclear.	Development can generally be located to avoid negative effects. Further archaeological survey work may be needed. Heritage Impact Assessments would also be necessary.
4b. Minimise impact on and where possible enhance habitats and species (taking account of climate change)	Impacts are variable and in some cases are unknown without further study. Bat flight corridors and foraging habitat in central NSC are an issue of international significance. A range of national ecological designations exist across the sub-region and any impacts would need to be assessed on an individual case-by-case basis.	Development can generally be located to avoid negative effects, or compensatory habitat provision may be required. Further ecological survey work may be needed.

<p>4c. Minimise impact on and where appropriate enhance valued landscapes</p>	<p>Impacts are generally medium to high, the majority of greenfield sites will have a negative impact in this respect based on available information.</p> <p>Urban areas are less likely to suffer negative impact.</p>	
<p>4d. Promote the conservation and wise use of land, maximising the re-use of previously developed land</p>	<p>Urban intensification will likely focus on development of brownfield areas.</p> <p>Development on greenfield land does not contribute to promoting the conservation and wise use of land. Therefore all locations have a negative effect on this objective and there is no apparent scope for mitigation.</p>	
<p>4e. Minimise the loss of productive land, especially best and most versatile agricultural land.</p>	<p>Based on available information the locations form a mixture of graded agricultural land, the majority in the area being Grade 3. The following town and village sites are on either provisional or confirmed BMV land: Backwell, Banwell, Churchill, Nailsea, Thornbury.</p>	<p>While some site areas can be reduced to avoid BMV land, this is not feasible where the BMV area is extensive. Detailed Agricultural Land Classification (ALC) Assessment required to establish the precise land grading.</p>
<p>4f. Minimise vulnerability to tidal/fluviat flooding (taking account of climate change), without increasing flood risk elsewhere.</p>	<p>Small parts of Backwell and Nailsea are in Flood Zone 3.</p> <p>Large areas of Bristol are in both Flood Zones 2 and 3.</p>	<p>The flood zones can be avoided in affected locations, potentially locating housing outside these zones. Standard flood mitigation measures can be implemented where this is unavoidable in urban areas.</p>
<p>4g. Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere.</p>	<p>SW flooding is generally restricted to land immediately adjoining local watercourses but there are some larger areas, e.g. Backwell, and local concerns about the adequacy of SW conveyance.</p> <p>Groundwater flood risk not comprehensively understood.</p>	
<p>4h. Minimise harm to, and where possible improve, water quality and availability</p>	<p>Some sites are in or adjoin Groundwater Source Protection Zones, e.g. Banwell, Churchill.</p> <p>Other than general potential for impacts from water run-off, the locations do not raise any significant concerns.</p>	<p>Further engagement with regulators is necessary to understand what constraints or opportunities exist.</p>

<p>5a. Achieve reasonable access to sustainable transportation (rail station, bus stops, cycle paths, footways)</p>	<p>Towns and villages on rail lines and radial roads offer this potential, though the potential will not be realised if there are capacity constraints, e.g. Backwell crossroads, or if the rail lines do not go to employment areas. Peripheral development can be beyond 800m walking distance of existing stations, e.g. Nailsea.</p> <p>Development at many of the locations could have significant negative impact with no mitigation measures.</p> <p>Access to rail stations is by road/ public transport from Charfield and, Thornbury Journeys to rail stations, particularly from Thornbury are likely to be relatively lengthy at peak travel times.</p>	<p>In general, development in rural areas could fund some improvements. The local transport concerns addressed would differ from those addressed in a more conurbation-focused option.</p> <p>The SA has made this assessment based upon the suitability of existing facilities. Major new development would need to be accompanied by significant infrastructure improvement.</p>
<p>5b. Reduce non-renewable energy consumption and 'greenhouse' emissions, and provide opportunities to link into existing heat networks</p>	<p>Distance from major urban heat sources reduces the potential to link into existing heat networks. General issue of dispersed growth producing longer vehicle trips.</p>	<p>Large-scale development could incorporate larger scale low carbon scheme which potentially allows higher standards to be achieved.</p>

Appendix C

Outline SA of Non-Green Belt Scenario

Sustainability Objective	Commentary	Mitigation or enhancement
1a. Achieve reasonable access to public open space (Designated Open Spaces, Town and Village Greens, and Public Rights of Way)	Peripheral development can be beyond 400m walking distance of existing town spaces. Villages generally lack large open spaces. There is usually good access to the countryside via the National Cycle Network and PRowS. There is also easy access to the Cotswolds and Mendip Hills AONBs from a number of locations.	Large-scale development could include open space provision.
1b. Minimise impacts on air quality and locate sensitive development away from areas of poor air quality	No AQMAs in the rural area, though motorways run close to some towns, e.g. Clevedon, WsM . There are several AQMAs in the Bristol urban area, which cover major arterial routes. There are known areas of poor air quality along Station Road in Yate.	Transport Impact Assessment and adequate preventative and mitigation measures are required.
1c. Achieve reasonable access to healthcare facilities (Doctors, Opticians, Pharmacies, Dentists, Hospitals)	Towns and most larger villages have a range of facilities. Severance issues where development would leapfrog barriers such as motorways and railways, as evident at Clevedon and Yate . Smaller villages tend to have limited facilities and would, therefore, have restricted access, but these are relatively few in number in this scenario.	Large-scale development could include healthcare provision but unlikely to achieve critical mass for new hospital. Average ambulance response / hospital access times could therefore decline.
2a. Deliver a suitable quantum of high quality housing for the West of England sub-region	Total number 42,260. Although locations are assumed to be of a strategic scale the plan period allows for reasonable lead-in times. The SA must know the housing requirement and whether the currently predicted housing capacity for this scenario is accurate before attempting to score this objective.	
2b. Deliver a suitable mix of high quality housing types and tenures (including affordable housing) for all parts of society within the West of England sub-region	Greenfield development is likely to be more viable than brownfield therefore it could provide more certainty for the delivery of suitable tenures including affordable housing. Urban intensification is very difficult to appraise given the uncertainty of locations of developments. Whilst a range of housing types can be achieved, there may be fewer opportunities for the development of new non-flatted homes (including with gardens) with urban intensification. This could limit opportunities for a mix of homes. Viability issues associated with	

	some brownfield developments may limit opportunities to secure affordable housing.	
2c. Achieve reasonable access to community facilities (post office, meeting venues, youth centres)	<p>Towns and most larger villages have a range of facilities. Severance issues where development would leapfrog barriers such as motorways and railways, as evident at Clevedon and Yate.</p> <p>Smaller villages tend to have limited facilities and would, therefore, have restricted access, but these are relatively few in number in this scenario.</p>	Large-scale development could include community provision.
2d. Achieve reasonable access to educational facilities (primary schools, secondary schools)	<p>Towns and most larger villages have a range of facilities but only a few villages have secondary schools, e.g. Backwell, Churchill, Thornbury and Yate. Some primary schools are not well-located relative to potential development sites, e.g. Congresbury and Thornbury. Peripheral development can be beyond 1500m of existing secondary schools, e.g. Clevedon, Nailsea.</p> <p>School provision is very much dependent on the way the development is implemented. Notional triggers for new facilities will be met only if a future planning application meets the required quantum.</p> <p>However some development areas in are relatively small scale development therefore it is unlikely to achieve on-site provisions. e.g. Midsomer Norton, Radstock and Westfield and Clutton and Temple Cloud.</p>	Large-scale development could include educational provision but unlikely to achieve critical mass for a secondary school (5,000 homes needed as a rule-of-thumb).
2e. Achieve reasonable access to town centre services and facilities (Designated City, Town and District Centres)	Peripheral development can be beyond 1500m of existing town / district centres. Most villages are remote from district or larger centres. None of the locations beyond the Green Belt are within 5km of the centres of Bristol, Bath and WsM.	Large-scale development unlikely to achieve critical mass for a district centre (5,000 homes needed as a rule-of-thumb).
2f. Reduce poverty and income inequality, and improve the life chances of those living in areas of concentrated disadvantage	<p>No demonstrable link with locational strategy for housing, though employment or mixed development can provide benefits. Only urban intensification can demonstrate a positive link to deprived communities.</p> <p>The Bristol Core Strategy gives priority to the regeneration of South Bristol to include additional mixed-use development with supporting infrastructure. The regeneration of South Bristol shall no occur in isolation but as part of the integrated spatial strategy for the area. For example, improvements to transport will enable</p>	

	<p>greater access to new employment created in the city centre.</p> <p>The revitalisation of South Bristol will help address imbalances in employment opportunities and travel to work patterns across the city and region.</p>	
3a. Deliver a reasonable quantum of employment floorspace/land and increase access to work opportunities for all parts of society within the West of England sub-region	<p>Dispersed development is unlikely to offer the critical mass to underpin significant new employment provision and so is more likely to lead to out-commuting. More remote locations are very unlikely to be suitable or attractive commercial locations.</p> <p>The Old Mills sites in Paulton are allocated for employment uses in the adopted Local Plan and emerging Placemaking Plan and designated as a Somer Valley Enterprise Zone.</p>	Improvements to the strategic transport corridors could make locations more attractive for employment.
3b. Achieve reasonable access to major employment areas	<p>Towns and villages on rail lines and radial roads offer this potential, though the potential will not be realised if there are capacity constraints or if the rail lines do not go to employment areas. There are major employers in the rural area, such as Bristol Airport, but public transport strategy emphasises links into towns and cities rather than with the rural area beyond.</p> <p>The Old Mills sites in Paulton are allocated for employment uses in the adopted Local Plan and emerging Placemaking Plan and designated as a Somer Valley Enterprise Zone.</p> <p>Wsm offers a large range of employment opportunities and is being promoted through the J21 Enterprise Area.</p>	Improvements to the strategic transport corridors could make locations more attractive for employment.
4a. Minimise impact on and where appropriate enhance the historic environment, heritage assets and their settings	<p>Design and scale of development are crucial. Some areas are archaeologically sensitive and the extent of the resource may be unclear.</p>	Development can generally be located to avoid negative effects. Further archaeological survey work may be needed. Heritage Impact Assessments would also be necessary.
4b. Minimise impact on and where possible enhance habitats and species (taking account of climate change)	<p>Impacts are variable and in some cases are unknown without further study. Bat flight corridors and foraging habitat in central NSC are an issue of international significance. A range of national ecological designations exist across the sub-region and any impacts would need to be assessed on an individual case-by-case basis.</p>	Development can generally be located to avoid negative effects, or compensatory habitat provision may be required. Further ecological survey work may be needed.

<p>4c. Minimise impact on and where appropriate enhance valued landscapes</p>	<p>Impacts are generally medium to high, the majority of greenfield sites will have a negative impact in this respect based on available information.</p> <p>Urban areas are less likely to suffer negative impact.</p>	
<p>4d. Promote the conservation and wise use of land, maximising the re-use of previously developed land</p>	<p>All non-GB rural locations are greenfield. Development on greenfield land does not contribute to promoting the conservation and wise use of land. Therefore all locations have a negative effect on this objective and there is no apparent scope for mitigation. Urban intensification will likely focus on development of brownfield areas.</p>	
<p>4e. Minimise the loss of productive land, especially best and most versatile agricultural land.</p>	<p>Based on available information the locations form a mixture of graded agricultural land, the majority in the area being Grade 3. The following town and village sites are on either provisional or confirmed BMV land: Backwell, Banwell, Churchill, Nailsea, Thornbury.</p>	<p>While some site areas can be reduced to avoid BMV land, this is not feasible where the BMV area is extensive. Detailed Agricultural Land Classification (ALC) Assessment required to establish the precise land grading.</p>
<p>4f. Minimise vulnerability to tidal/fluvial flooding (taking account of climate change), without increasing flood risk elsewhere.</p>	<p>Towns and larger villages are generally FZ1 but there are notable exceptions, e.g. Clevedon, Yatton. Town expansion at Wsm was excluded from SA on transport grounds but if included as a non-GB location there are significant issues with flood risk.</p>	<p>While some site areas can be reduced to avoid FZ3 land, this is not feasible where the FZ3 area is extensive.</p>
<p>4g. Minimise vulnerability to surface water flooding and other sources of flooding, without increasing flood risk elsewhere.</p>	<p>SW flooding is generally restricted to land immediately adjoining local watercourses but there are some larger areas, e.g. Backwell, Yatton, and local concerns about the adequacy of SW conveyance. Reservoir Inundation Zone for Blagdon Lake affects some NSC villages. Groundwater flood risk not comprehensively understood.</p>	
<p>4h. Minimise harm to, and where possible improve, water quality and availability</p>	<p>Some sites are in or adjoin Groundwater Source Protection Zones, e.g. Banwell, Churchill.</p> <p>Other than general potential for impacts from water run-off, the locations do not raise any significant concerns.</p>	<p>Further engagement with regulators is necessary to understand what constraints or opportunities exist.</p>

<p>5a. Achieve reasonable access to sustainable transportation (rail station, bus stops, cycle paths, footways)</p>	<p>Towns and villages on rail lines and radial roads offer this potential, though the potential will not be realised if there are capacity constraints, e.g. Backwell crossroads, or if the rail lines do not go to employment areas. Peripheral development can be beyond 800m walking distance of existing stations, e.g. Nailsea.</p> <p>Locations such as Clutton, Temple Cloud, Midsomer Norton, Radstock and Westfield – significant negative impact with no mitigation measures suggested by the Transport Study. As outlined within the JSP Technical Scenarios the key components of addressing transport issues is the need to maximise the effectiveness of sustainable travel choices and encourage mode shift. Due to the limited access and choices to existing sustainable transportation in the area it will be difficult to implement such measures and thus further improvements will be required.</p> <p>Access to rail stations is by road/ public transport from Charfield, Thornbury and Wickwar. Journeys to rail stations, particularly from Thornbury, are likely to be relatively lengthy at peak travel times.</p>	<p>In general, development in non-GB rural areas could fund improvements. The local transport concerns addressed would differ from those addressed in a more conurbation-focused option.</p> <p>The SA has made this assessment based upon the suitability of existing facilities. Major new development would need to be accompanied by significant infrastructure improvement.</p>
<p>5b. Reduce non-renewable energy consumption and 'greenhouse' emissions, and provide opportunities to link into existing heat networks</p>	<p>Distance from major urban heat sources reduces the potential to link into existing heat networks. General issue of dispersed growth producing longer vehicle trips.</p>	<p>Large-scale development could incorporate larger scale low carbon scheme which potentially allows higher standards to be achieved.</p>