

Sustainability Appraisal (SA) of the Wokingham Borough Local Plan Update

Interim SA Report Non-technical Summary

November 2021

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Introduction

AECOM is commissioned to undertake Sustainability Appraisal (SA) in support of the emerging Wokingham Borough Local Plan Update (LPU).

Once in place, the LPU will establish a spatial strategy for growth and change for the period to 2038, allocate sites to deliver the strategy and establish the policies against which planning applications will be determined.

SA is a mechanism for considering and communicating the likely effects of an emerging plan, and alternatives, with a view to minimising adverse effects and maximising the positives. Local Plans must be subject to SA.

Central to the SA process is preparation of an SA Report for publication alongside the Draft Plan. At the current time, a Revised Growth Strategy is published for consultation, which amount to a partial early draft version of the LPU (the consultation document does not include a focus on development management policies). An 'Interim' SA Report published alongside the consultation document.

This report is the Non-technical Summary (NTS) of the Interim SA Report.

Structure of the Interim SA Report / this NTS

SA reporting essentially involves answering the following questions in turn:

1) What has plan-making / SA involved **up to this point**?

- including in relation to 'reasonable alternatives'.

2) What are the SA findings **at this stage**?

- i.e. in relation to the draft plan.

3) What happens **next**?

Each of these questions is answered in turn below. Firstly though there is a need to set the scene further by answering the question: *What's the scope of the SA?*

What's the scope of the SA?

The scope of the SA is reflected in a list of topics and objectives. Taken together, this list provides a methodological 'framework' for appraisal.

Table A: The SA framework

Topic	Objective(s)
Accessibility	<ul style="list-style-type: none"> Improve accessibility to services, amenities and facilities in particular by safe walking and cycling routes Raise educational attainment, skills and training opportunities
Air and wider environmental quality	<ul style="list-style-type: none"> Minimise impacts arising from pollution and improve and prevent where possible
Biodiversity	<ul style="list-style-type: none"> Conserve and enhance biodiversity, including wildlife and river corridors and networks and to maximise opportunities for building in beneficial features for biodiversity including limiting the impact of climate change
Climate change adaptation	<ul style="list-style-type: none"> Reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment by ensuring no inappropriate development in any areas at risk of flooding and use sustainable drainage solutions and other solutions in line with advice from the Environment Agency where necessary
Climate change mitigation	<ul style="list-style-type: none"> Increase energy efficiency and the proportion of energy generated from renewable sources in the Borough [also see 'Transport']
Communities	<ul style="list-style-type: none"> Reduce poverty and social exclusion Improve the health and wellbeing of the population Ensure a safe and secure environment Create and sustain vibrant and locally distinctive communities
Economy	<ul style="list-style-type: none"> Ensure high and stable levels of employment Encourage 'smart' economic growth' Maintain a buoyant and competitive economy with a range of jobs without adversely affecting the quality of life

Topic	Objective(s)
Historic environment	<ul style="list-style-type: none"> Protect and enhance the historic environment, ensuring new development makes a positive contribution, or leads to no material harm, taking into account the setting of assets and landscape links
Housing	<ul style="list-style-type: none"> Make provision for local housing needs by ensuring that everyone has the opportunity to live in a decent and affordable home
Land, soils and natural resources	<ul style="list-style-type: none"> Improve efficiency in land use through the re-use of previously developed land, existing buildings, including the re-use of resources and remediation of previously developed land Sustainably use resources (including renewable and non-renewable resources) Maintain and where appropriate improve soil quality, and to ensure land affected by contamination is remediated Address waste by reducing and minimising waste as a priority and then managing waste in accordance with the waste hierarchy
Landscape	<ul style="list-style-type: none"> Protect and enhance valued landscapes and the integrity of established character areas, ensuring new development makes a positive contribution, or leads to no material harm, also recalling links with the historic environment
Transportation	<ul style="list-style-type: none"> Reduce road congestion on the local and strategic road network, and minimise air pollution and greenhouse gas emissions from transport, by ensuring well-located new development, minimising the need to travel and supporting 'sustainable transport' modes including safe walking and cycling routes and public transport
Water	<ul style="list-style-type: none"> Maintain, and, where appropriate improve water quality (including groundwater and surface water) and to achieve sustainable water resource management of both surface and groundwater flows

Plan-making / SA up to this point

An important element of the required SA process involves appraising 'reasonable alternatives' in time to inform development of the draft plan, and then publishing information on reasonable alternatives for consultation alongside the draft plan.

As such, Part 1 of the Interim SA Report explains how work was undertaken to develop and appraise a reasonable range of "growth scenarios", essentially in the form of alternative key diagrams.

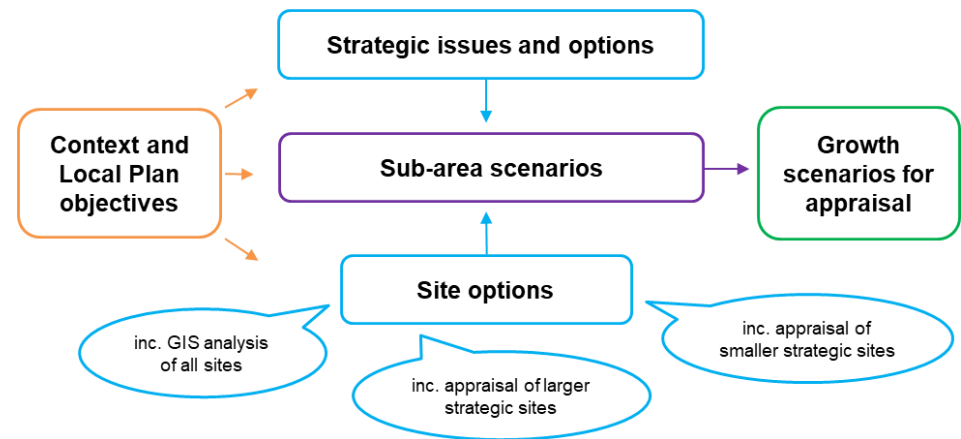
In short, the process involved:

- establishing growth scenarios;
- appraising growth scenarios; and then
- feeding-back to inform the LPU.

Establishing growth scenarios

The aim here is to explain the process of establishing reasonable growth scenarios for appraisal. Figure A provides an overview.

Figure A: Establishing growth scenarios – process overview



Context and Local Plan objectives

Plan-making has been underway since 2015, with three consultations held prior to this current consultation, and publication of three Interim SA Reports.

Plan objectives were established ahead of the Draft Plan consultation (2020). Another key point to note is that the Draft Plan featured a large strategic site allocation at Grazeley, but that site is no longer achievable, which has prompted the need for this current Revised Growth Strategy consultation.

All evidence gathered to date, including through consultation and appraisal, fed into work to define reasonable growth scenarios for appraisal in 2021.

Strategic issues and options

There is a need to consider:

- **Quanta** (*how much?*) – when seeking to define reasonable growth scenarios there is a need to focus attention on providing for Local Housing Need (LHN), which amounts to 776 dwellings per annum, or 15,513 homes in total over the 20-year plan period.

There is also a need to consider modest higher growth scenarios. With regards to lower growth scenarios (i.e. setting a housing requirement below LHN), these were judged reasonable to explore in principle in 2019/2020, as reported in the Interim SA Report published alongside the Draft Plan, but are now judged to be unreasonable.

- **Broad distribution** (*where?*) – there are wide range of quite well established broad distribution principles in the Wokingham Borough context, for example:
 - There is much to commend the Core Strategy approach of supporting large **strategic schemes** as an option for the LPU, including in light of consultation responses received on the LPU to-date, as well as appraisal work completed to date. There has been successful infrastructure delivery alongside housing.
 - However, there is also a need to support a **mix of site types**, and a degree of dispersal (mindful of the settlement hierarchy), in order to ensure a robust housing supply trajectory (thereby maintaining a five year housing land supply, 5YHLS) and ensure that local housing needs are met. There is also a need to avoid an undue imbalance of growth between the north and south of the Borough, as far as possible given the Green Belt constraint.
 - There is a clear need to make best use of **previously developed sites** and redevelopment opportunities in urban areas, also aligning with wider objectives including around reimagining town centres and ensuring high quality place-making / 'beauty'. However, previously developed sites are often associated with delivery

challenges, and there is a need to consider strategic objectives for urban areas (e.g. Wokingham town centre functions must not be unduly eroded) and there is a need to ensure new homes with good space standards and access to green/open space. N.B. detailed work on development density has been completed recently, and is discussed in Section 5.4.

- There is also a clear need to protect the **Green Belt** as far as possible, in line with the NPPF, and taking account of the Bracknell Forest and Wokingham Green Belt Review (2016).
- There is a need to approach any further growth at the Strategic Development Locations (**SDLs**) with caution, ensuring alignment with established strategic objectives, and supporting the ability of new communities to form and 'bed in'.
- Objectively assessed needs for **employment land** are potentially associated with a degree of uncertainty at the current time, but there is a key strategic opportunity at Thames Valley Science Park.
- There is a need to support the ambitions of Reading Borough to deliver a network of public and active **transport corridors** linking residential areas and key employment locations. There is also a need to take account of issues and opportunities raised by Oxfordshire authorities (notably concerns in respect of a third Thames Crossing), Hampshire authorities (the A33 corridor) and Bracknell Forest. Equally, there are 'within borough' issues and opportunities, e.g. concerns with the two main road corridors south of Wokingham (although new and forthcoming road infrastructure is improving the situation).
- With regards to **community infrastructure** (also 'grey' infrastructure), there are no headline issues/opportunities (e.g. there is no location with an identified need for a new secondary school), but there is clear merit to directing growth to locations with infrastructure capacity and/or with the potential to deliver new and/or upgraded strategic infrastructure alongside housing.
- There is a need to take a strategic approach to planning for **green infrastructure** and landscapes, integrating with landscape / historic / settlement character and the emerging agenda of planning for biodiversity and wider environmental net gain. Other key 'environmental' considerations include planning for the water environment and avoiding the loss of BMV agricultural land.
- A priority issue is aligning with the Climate Emergency Action Plan and hence supporting achievement of the Borough's 2030 **net zero** target. There is a need to minimise per capita emissions both from transport (with well understood

implications for spatial strategy) and the built environment (less well understood implications). All schemes of ten homes or more must be net zero from 2022.

- The AWE Burghfield Detailed Emergency Planning Zone rules out growth along the A33 corridor, south of Reading. In particular, it rules out **Grazeley**, which leads to a major gap in the housing land supply proposal from the Draft Plan consultation stage, recognising that, as a particularly large site, it was anticipated that Grazeley would be able to deliver a very large number of homes in the plan period (3,750). This clearly creates a significant issue for the LPU, but also leads to an opportunity to reconsider the opportunities of increased growth elsewhere, including at lower tier settlements.

Site options

A large number of site options have been submitted by land-owners and developers, including WBC a landowner, and a process of Housing and Economic Land Availability Assessment (HELAA) has been prepared in order to identify a shortlist of sites that are available and potentially suitable for allocation. The HELAA provides an important starting point for defining reasonable growth scenarios.

Within Wokingham Borough, as within other local authority areas, there is an important distinction between strategic and non-strategic sites. Strategic sites are those with a housing capacity in the several hundreds or thousands, and associated with economies of scale that enable delivery of a good mix of uses (also a good mix of homes in terms of type, size and tenure), potentially to include employment land, and/or enable delivery of new or upgraded strategic infrastructure (e.g. road, community, green infrastructure).

Taking strategic and non-strategic site options in turn:

- **Strategic site options** – a long list of 12 strategic site options was identified, which were then divided into two categories: large strategic site options and smaller strategic site options. The three large strategic site options were subjected to a comparative appraisal, leading to a conclusion that all three should be taken forward for further consideration through the appraisal of borough-wide growth scenarios. The list of nine smaller strategic site options was first whittled down to a shortlist of four, which were then subjected to a comparative appraisal (Appendix I, leading to a conclusion that three should be taken forward to the borough-wide growth scenarios.
- **Non-strategic site options** – as a means of supplementing the HELAA, all site options (both strategic and non-strategic) were analysed using GIS software, with performance measures against metrics such as distance to a SSSI, distance to a primary school and percentage intersect with a flood risk zone.

Sub-area scenarios

The next step was to draw upon understanding of strategic and site-specific issues and options to establish growth scenarios for each of the Borough's sub-areas in turn. This is the focus of Section 5.4 within the SA Report.

There is no set way of dividing-up the Borough; however, for the purposes of the task at hand, it was considered appropriate to explore 14 sub-areas. For each sub-area the aim was to arrive at a conclusion on the sub-area growth scenarios that should be taken forward to the final step in the overall process (as summarised in Figure A), which sees the sub-area growth scenarios combined into a single set of borough-wide growth scenarios. Ultimately, the conclusion was that:

- For seven sub-areas only one scenario needs to be reflected across the borough-wide growth scenarios (i.e. the approach to growth can reasonably be held constant);
- For six sub-areas there are two reasonable growth scenarios to reflect; and
- For on-sub-area there are three reasonable growth scenarios to reflect.

Table B: Reasonable sub-area scenarios

Sub-area	Homes at allocations in the plan period		
	Scenario 1	Scenario 2	Scenario 3
A4 corridor	400	550	1,900
Woodley	15	-	-
Hurst	15	165	-
North of Wokingham	175	2,175	-
Wokingham urban area	291	-	-
South of Wokingham	906	1,306	-
Winnersh	372	-	-
South of the M4, west of Wokingham	134	2,334	-
South of the M4, east of the A33	381	-	-
South of the M4, west of the A33	0	-	-
Arborfield area	10	510	-
Nine Mile Ride	451	-	-
Swallowfield and Riseley	70	150	-
Finchampstead	0	-	-

Growth scenarios for appraisal

The final task was to draw together the understanding generated in order to arrive at a single set of reasonable borough-wide growth scenarios for appraisal. In practice, this meant exploring ways of **combining the sub-area scenarios**, also mindful of housing supply from completions (i.e. sites already delivered since the start of the plan-period), commitments (i.e. sites with an existing planning permission or an existing allocation); and windfall sites (i.e. sites that are neither a commitment nor an allocation).

There are many potential combinations of the sub-area scenarios, even after immediately ruling-out those combinations that would deliver too few or too many homes. A number of rules and assumptions were applied, which resulted in the identification of 12 reasonable growth scenarios for appraisal, as presented in Table C and across a series of maps.

Points to note include:

- Scenario 1 - is a low growth option, that is arguably unreasonable, because it would involve a ‘supply buffer’ over-and-above Local Housing Need of only circa 5%, and given that there is no reasonable potential for the LPU housing requirement to be set at a figure below LHN.
- Scenario 12 - is a high growth option – the total potential supply would amount to LHN plus circa 32%, which could mean that, in addition to ensuring a healthy supply buffer, there could be flexibility to provide for any unmet need from a neighbouring authority. At the current time there is little or no reason to suggest the likelihood of needing to provide for unmet need (other than modest unmet need from Reading, which is well understood and accounted for), but the possibility cannot be ruled out entirely.
- The maps differentiate between proposed allocations that are a constant across the scenarios (namely those that make up Scenario1) and those that are a variable.
- The maps also show the four existing Strategic Development Locations (SDL), which were allocated through the Core Strategy (2010) in order to bring forward in the region of 10,000 homes alongside major new infrastructure (see wokingham.gov.uk/major-developments/overview-of-major-developments/).

Table C: The reasonable growth scenarios – summary

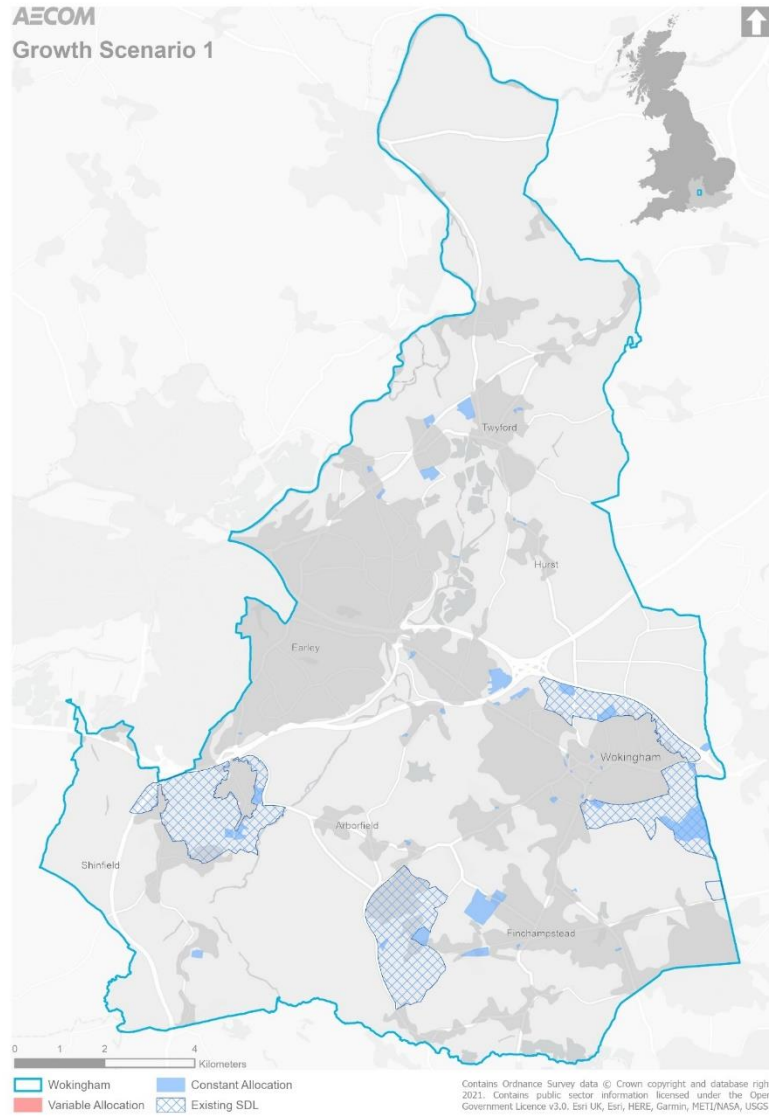
Scenario	Description	Potential supply
1	Do minimum	16,304
<i>Scenario 1 plus...</i>		
2	Smaller HELAA potentially suitable (PS) sites	17,284
3	Smaller HELAA PS sites and (two) unsuitable sites	17,584
4	East of Twyford/Ruscombe	17,804
5	East of Twyford/Ruscombe and Blagrove Lane	18,204
6	East of Twyford/Ruscombe and Barkham Square	18,304
7	Ashridge	18,304
8	Hall Fam / Loddon Valley (LV)	18,504
9	Ashridge and Blagrove Lane	18,704
10	Ashridge and Barkham Square	18,804
11	Hall Fam LV, one small PS site and two unsuitable sites	18,884
12	Ashridge and Hall Fam LV	20,504

Growth scenarios appraisal

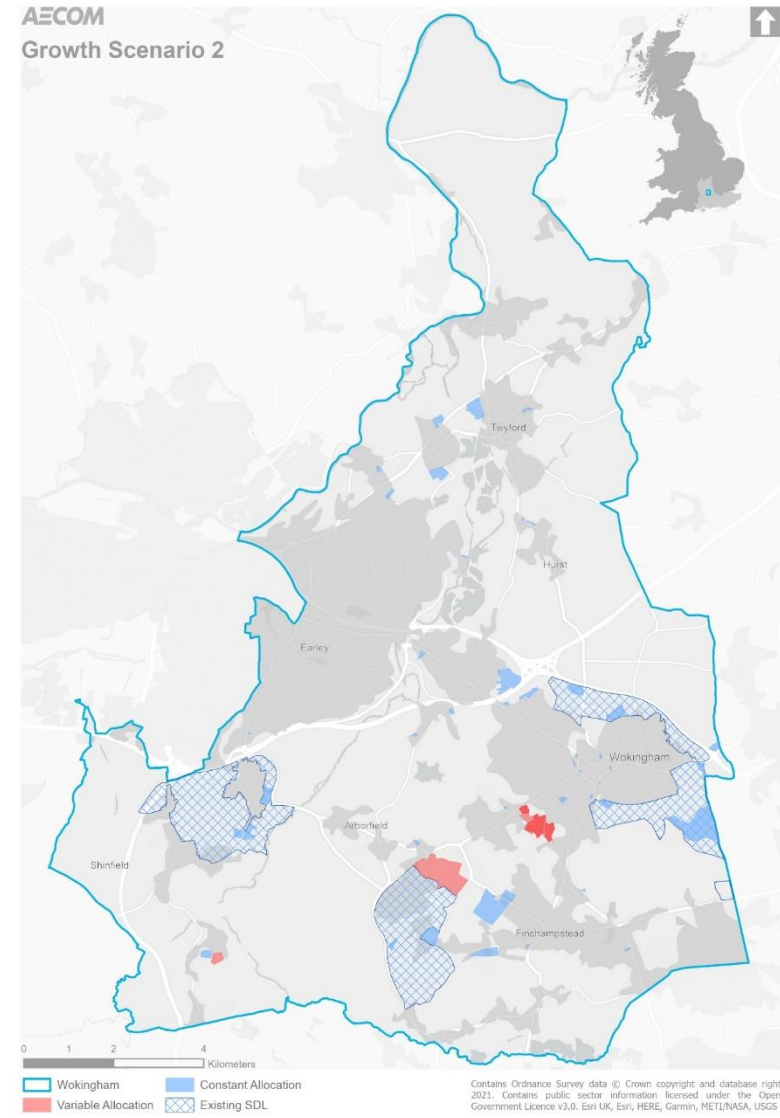
Summary appraisal findings are presented within the table below. Within each row (i.e. for each of the topics that comprise the SA framework) the columns to the right hand side seek to both categorise the performance of each scenario in terms of ‘significant effects’ (using **red** / **green**)* and also rank the scenarios in order of performance (regardless of significant effects).

* Specifically, **Red** indicates a significant negative effect; **amber** a negative effect with limited or uncertain significance; **light green** a positive effect with limited or uncertain significance; and **green** a significant positive effect. Mo colour indicates a neutral effect.

Scenario 1: Do minimum

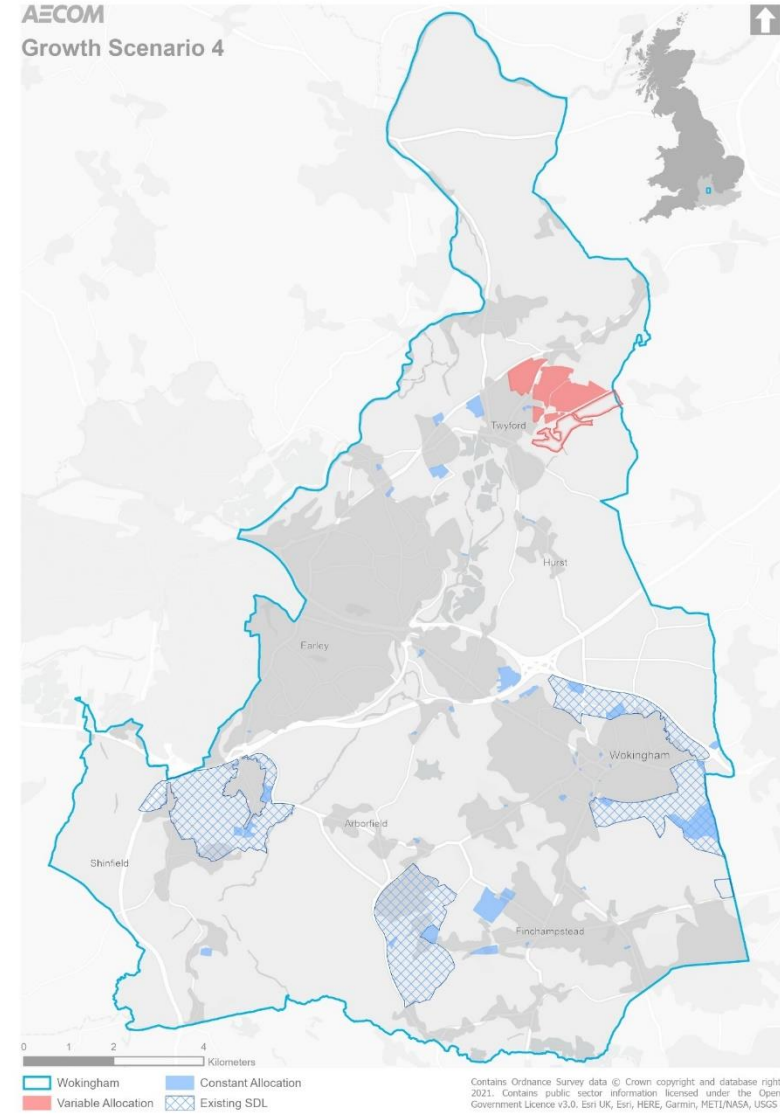
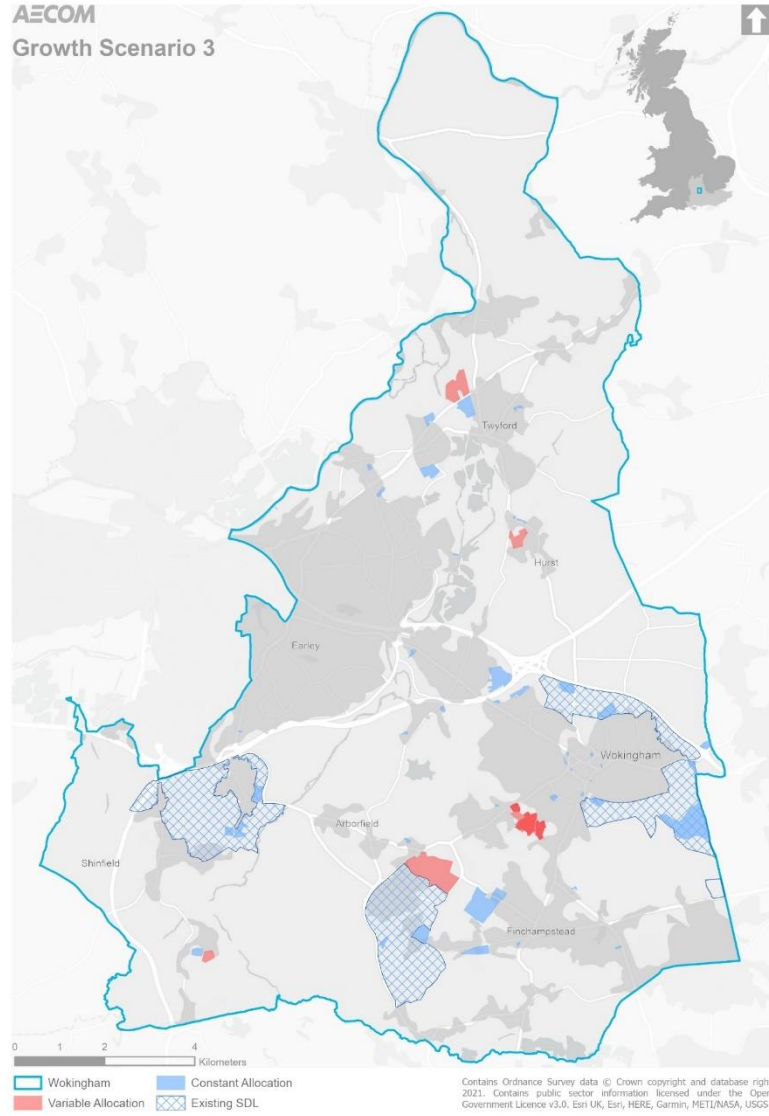


Scenario 2: Scenario 1 plus smaller potentially suitable (PS) sites



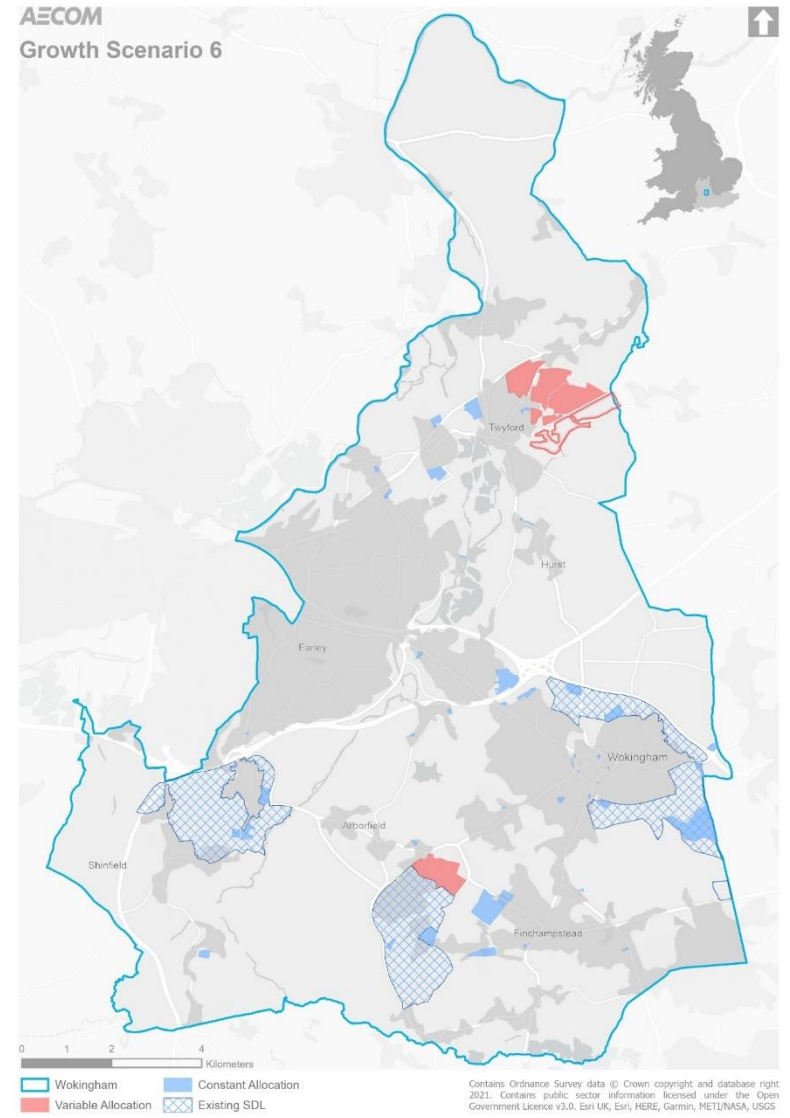
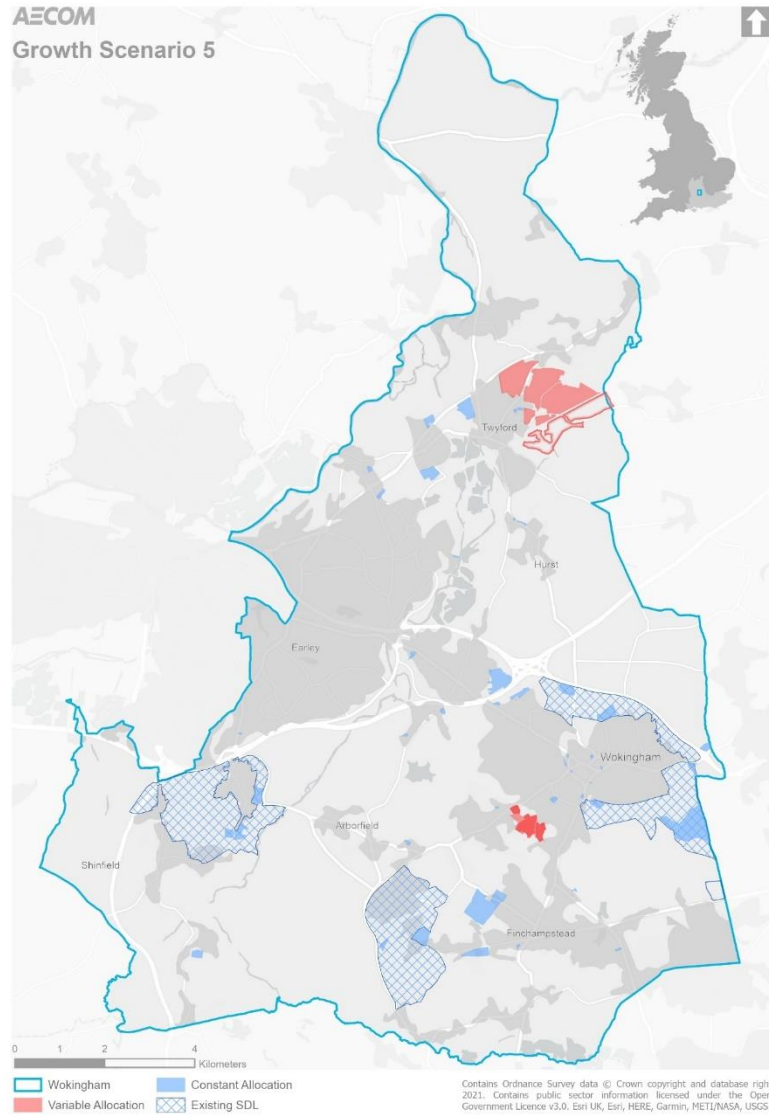
Scenario 3: Scenario 1 plus smaller PS sites and two unsuitable sites

Scenario 4: Scenario 1 plus East of Twyford/Ruscombe

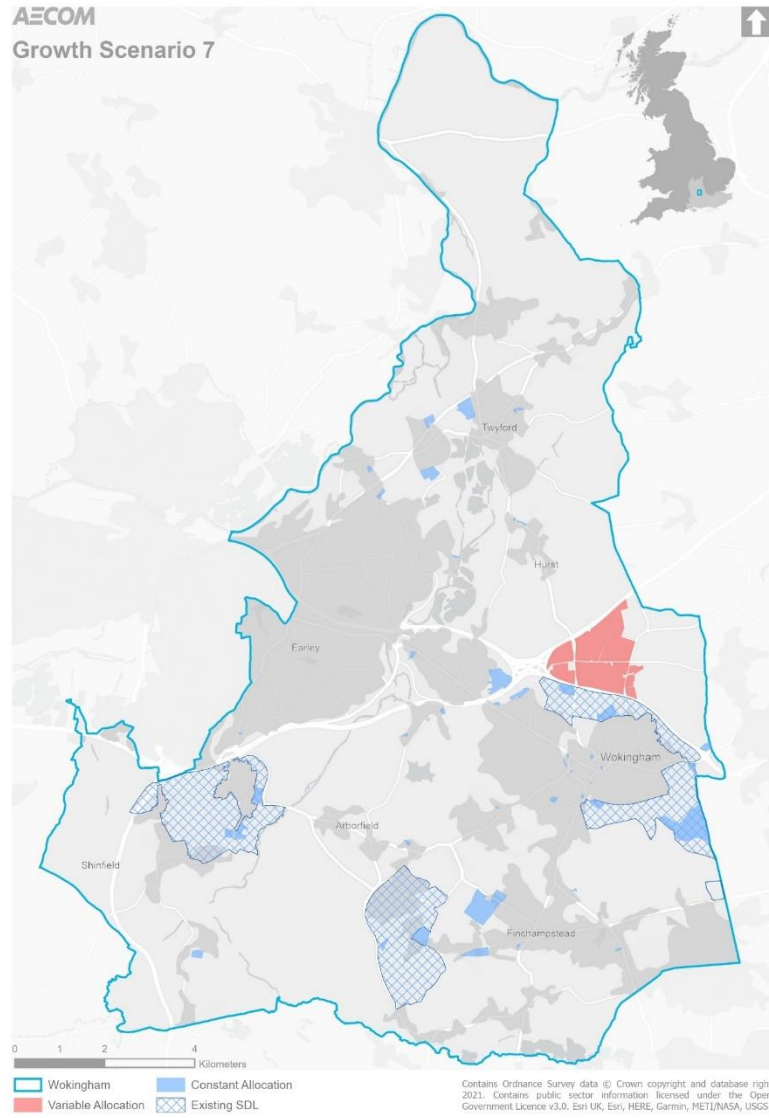


Scenario 5: Scenario 1 plus East of Twyford/Ruscombe and Blagrove Lane

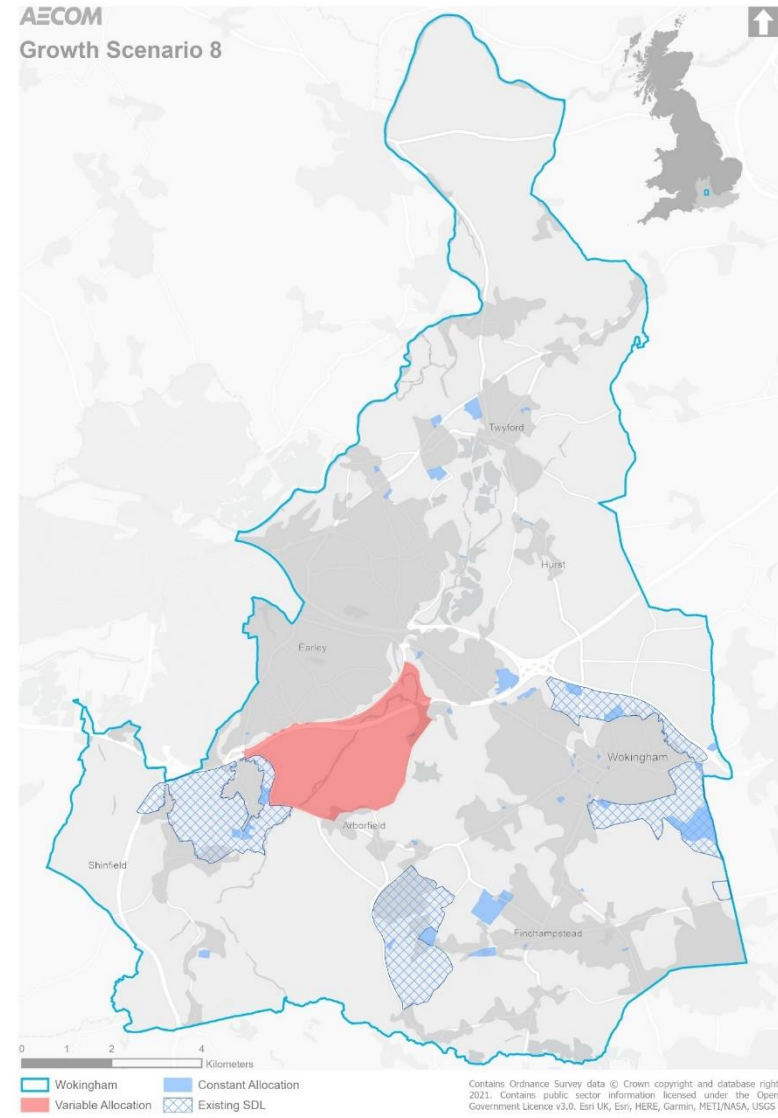
Scenario 6: Scenario 1 plus East of Twyford/Ruscombe and Barkham Square



Scenario 7: Scenario 1 plus Ashridge

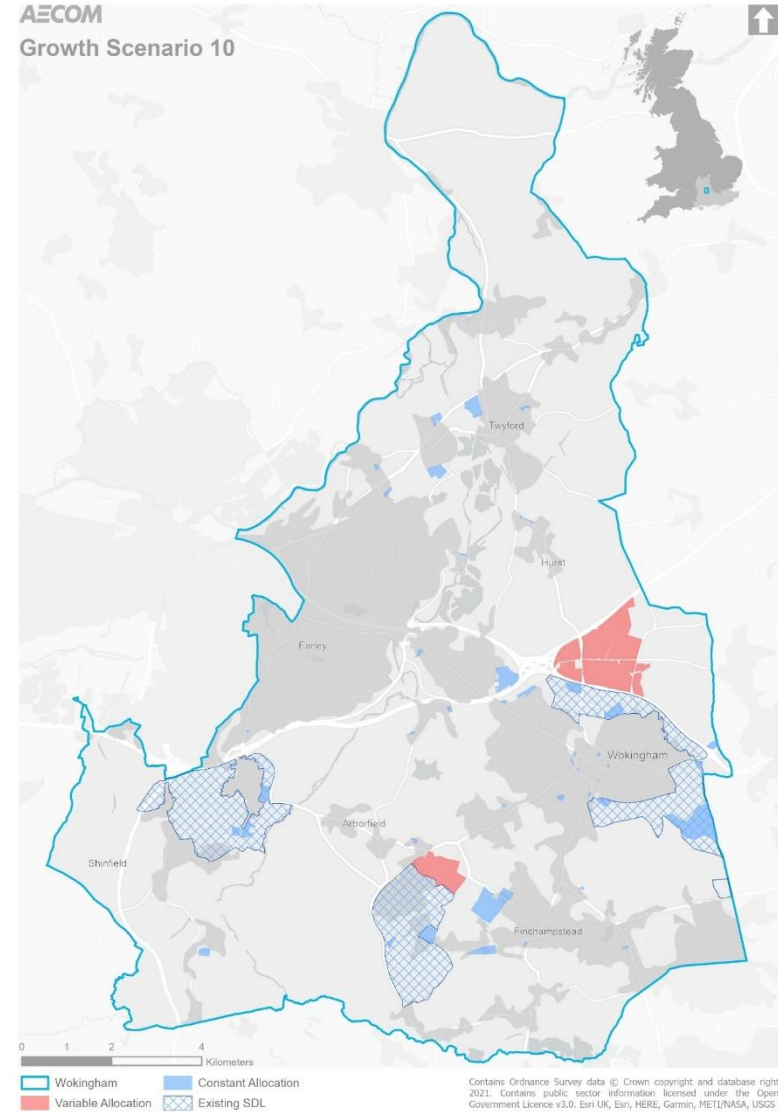
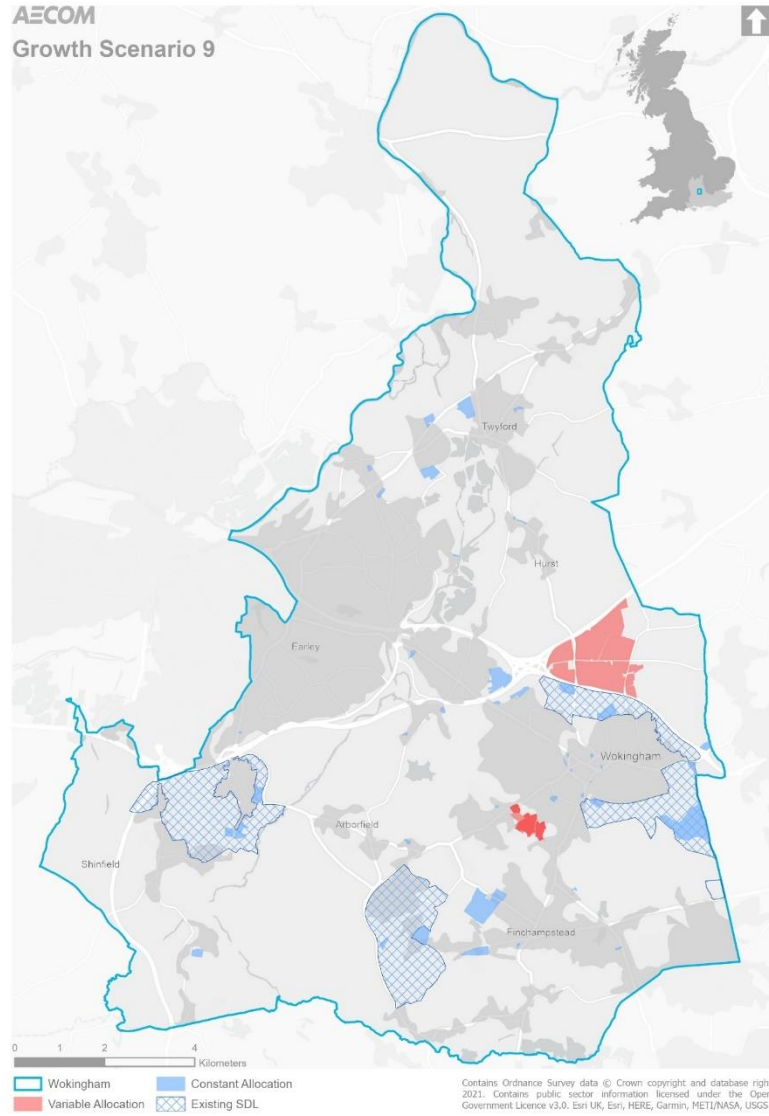


Scenario 8: Scenario 1 plus Hall Fam / Loddon Valley (LV)



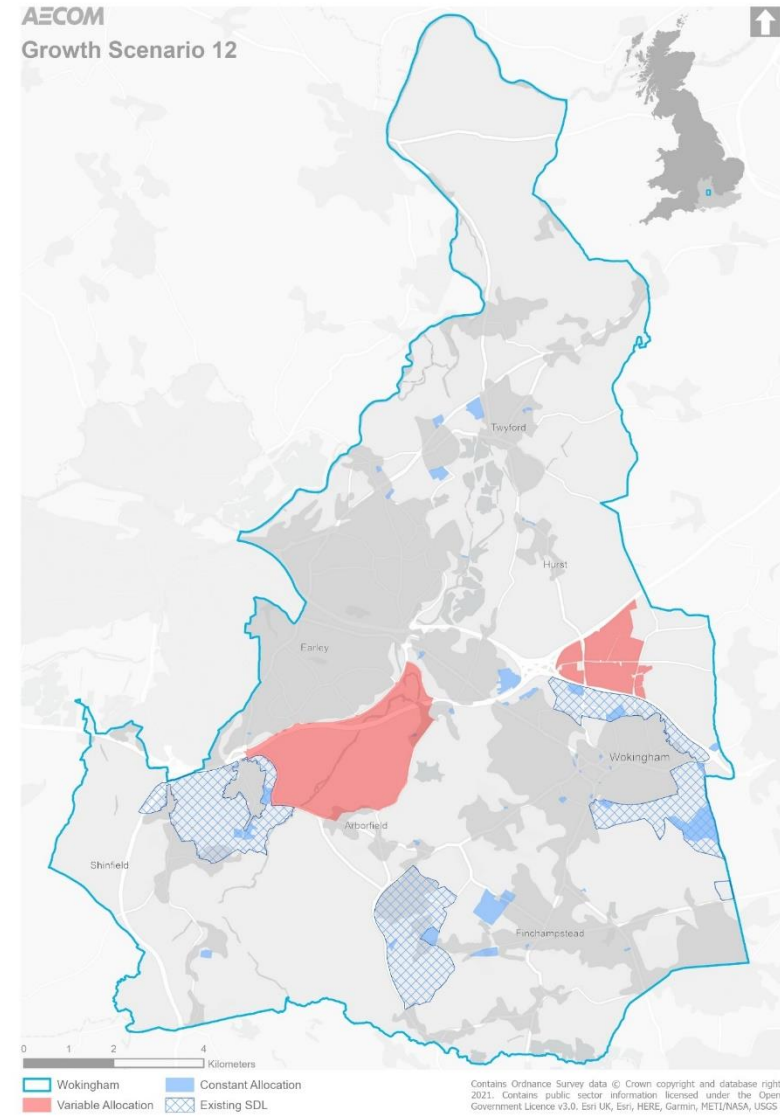
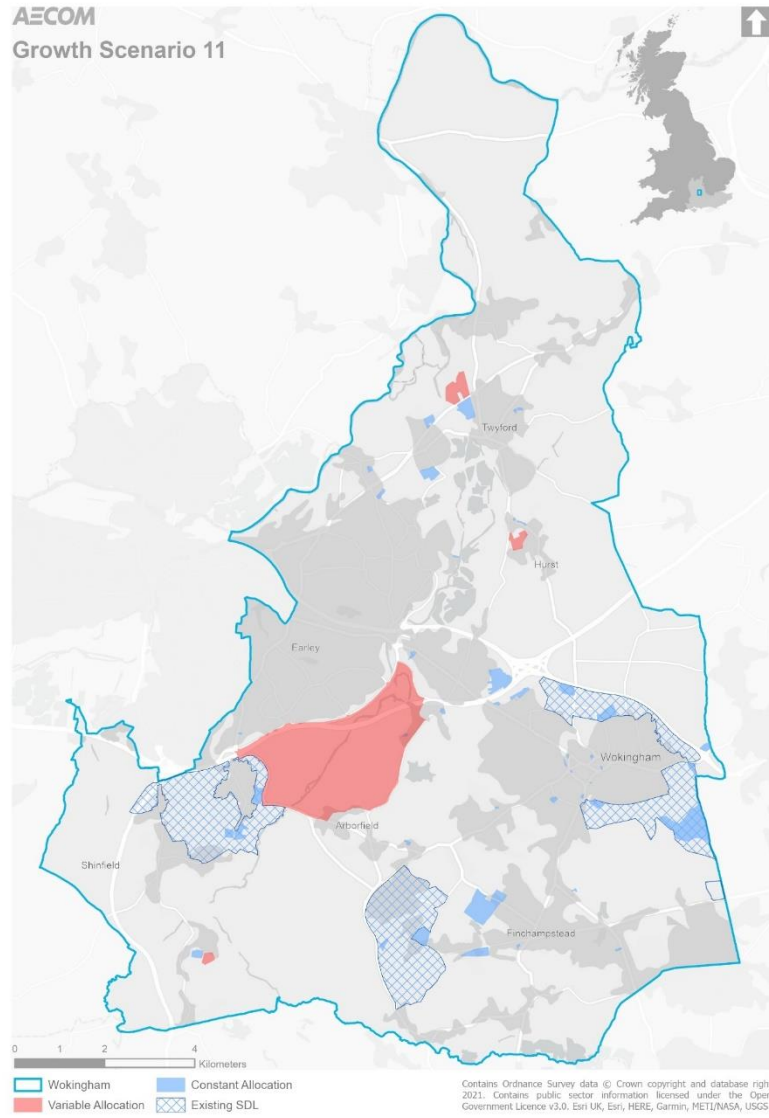
Scenario 9: Scenario 1 plus Ashridge and Blagrove Lane

Scenario 10: Scenario 1 plus Ashridge and Barkham Square



Scenario 11: Scenario 1 plus Hall Fam LV, one small PS site and two unsuitable sites

Scenario 12: Scenario 1 plus Ashridge and Hall Fam LV



Growth scenarios appraisal findings

Scenario	1	2	3	4	5	6	7	8	9	10	11	12
	Do minimum	HELAA Potentially Suitable (PS)	HELAA PS + select unsuitable	East of T/R	East of T/R + Blagrove Ln	East of T/R + Barkham Sq	Ashridge	Hall Farm LV	Ashridge + Blagrove Ln	Ashridge + Barkham Sq	Hall Farm LV + compatible	Hall Farm LV + Ashridge
SA topic	Rank of preference and categorisation of effects											
Accessibility	3		2			★1		2			★1	
Air quality	2	3	2	★1		2						3
Biodiversity	2			★1	2		3		4		2	4
CC adaptation	★1	2		★1		2	★1	3	★1	2	3	
CC mitigation	5			3	4		2		3			★1
Communities	2	3					2	★1	2		3	2
Economy	3							★1	3		2	
Historic environment	★1	2		3	4		★1		2		★1	
Housing	8	7	6		5		4	3	2		★1	
Land, soils, resources	2	3	4			3	★1	3	2	★1	3	2
Landscape	★1	2										
Transport	2			★1		2	3	★1	3	4	3	5
Water	★1											2

Discussion

- **Accessibility** (to community infrastructure) – there is support for large strategic schemes able to deliver strategic community infrastructure alongside new housing, and particular support for Hall Farm LV, which would notably deliver a secondary school and three primary schools, plus there is potentially the option of supporting a major new hospital facility (subject to further investigation, including around traffic / road infrastructure). This leads to support for Scenarios 8 and 12.

At the other end of the spectrum: Scenario 1 performs poorly as there could be a risk of development coming forward at unallocated sites outside of the plan led system sites in sub-optimal locations, the presumption in favour of sustainable development; whilst Scenario 2 does not involve a strategic allocation, and sees a high growth strategy at Swallowfield, where there is no primary school and dependency on the car to access higher order services/facilities, plus Barkham Square performs relatively poorly from an accessibility/connectivity perspective.

With regards to the mid-performing scenarios, specific considerations include: the option of higher growth at Hurst performs relatively poorly, but the village does benefit from relatively good connectivity to higher order centres; Blagrove Lane performs relatively well, given good connectivity to Wokingham and the proposal to deliver significant community infrastructure including a primary school (to be confirmed); and Ashridge could be reasonably well connected to Wokingham by walking/cycling, plus the A329M is a strategic public transport corridor between Reading and Bracknell, but the scheme would not deliver a secondary school.

- **Air quality** – there is support for East of T/R, which would deliver a relief road to reduce traffic through the Twyford crossroads Air Quality Management Area (AQMA). This leads to support for Scenario 4 and, on balance (N.B high uncertainty), Scenario 5, which would see additional allocation of Blagrove Lane, where there would be potential to walk and cycle to Wokingham town centre, but a risk of increased traffic through the town centre AQMA.

At the other end of the spectrum, it is appropriate to flag a concern with Scenario 12 for two reasons. Firstly, both Ashridge and Hall Farm LV are adjacent to major road corridors, with Ashridge leading to a particular concern (noting that Hall Farm LV would see employment adjacent to the M4). Secondly, in the absence of traffic modelling examining the cumulative impacts of these sites coming forward together there is a need to flag the risk of significant or even severe traffic impacts, including potentially within an AQMA.

Scenario 3 is also judged to perform poorly, as there would be a focus at: smaller sites with low trip internalisation; certain sites likely to be associated with high car dependency; sites in the south of the Borough that would load traffic onto highways and junctions with acknowledged congestion, for example the B3349; and a site NW of Twyford (TW007) that is associated with environmental quality issues (adjacent A-road, railway and sewage treatment works) and is not ideally located for accessing the village centre (where there is an AQMA) by walking/cycling.

- **Biodiversity** – there is support for East of T/R, as a larger site option – potentially supportive of a strategic approach to green/blue infrastructure and, in turn, biodiversity net gain – in a relatively unconstrained location, although the site does contain one Local Wildlife Site (LWS). It is difficult to see how onsite or nearby habitat enhancement or creation would lend *particular* support for strategic, landscape scale biodiversity objectives, although there are concentrations of habitat to the east and south east, which could serve to effectively contain growth, and could provide an offsite strategic habitat creation/enhancement opportunity. This leads to support for Scenario 4, though not Scenarios 5 or 6 (i.e. the other two scenarios involving East of T/R), as both Barkham Square and Blagrove Lane are associated with a notable degree of constraint (the Emm Brook corridor with associated ancient woodland in the case of the former; and the likely need for access through a woodland LWS in the case of the latter).

At the other end of the spectrum, both Ashridge and Hall Farm LV are subject to notable constraint, namely concentrations of ancient woodland in the case of the former, and the River Loddon and Barkham Brook corridors (also a concentration of woodland patches) in the case of the latter. As large strategic sites there would be excellent potential to design-in green/blue infrastructure, so as to avoid sensitive areas and ensure well-targeted habitat creation/enhancement, and opportunities are particularly apparent at Hall Farm LV; however, on balance, at this early stage, it is appropriate to flag a biodiversity risk for scenarios involving one or both of these sites.

With regards to the mid-performing scenarios, Blagrove Lane and Barkham Square have already been discussed as being subject to constraint. With regards to the three remaining smaller sites, all are thought to be relatively unconstrained, although the site north west of Twyford (north of the A4) would be adjacent to the River Loddon corridor – with its extensive floodplain grazing marsh priority habitat – and there is a need to consider in-combination impacts given two nearby sites that are a constant across the scenarios (Bridge Farm and NE of Charvil) that also abut the flood zone / priority habitat. The possibility of the sites in combination (c.470 homes in total) delivering strategic enhancements to this valued landscape (the Loddon/Thames confluence) could be explored.

Finally, with regards to Scenario 1, which comprises just the sites that are a constant across the scenarios, it is important to note that there are some significant biodiversity issues – see further discussion in Part 2.

- **Climate change adaptation** – the key consideration here is flood risk, and particularly fluvial flood risk. The stand-out sites here are Hall Farm LV and Barkham Square, both of which are strongly associated with a river corridor (it is important to note that scenarios involving both sites in combination are ruled out as unreasonable, including mindful of impacts to the Barkham Brook corridor). Focusing on Hall Farm Loddon Valley, it should be possible to avoid sensitive uses in the fluvial flood zone, but there is also a need to be mindful of downstream flood risk affecting Earley and Winnersh. It is fair to assume high quality Sustainable Drainage Systems (SuDS), and there could be the potential for ‘betterment’ (e.g. development could fund new strategic flood water attenuation onsite, leading to reduced flood risk affecting the A3290/b3270 and other areas downstream; a study was completed in 2018, as discussed within the Level 2 Strategic Flood Risk Assessment, 2021), but there is a need for caution at this stage.

The other sites of note are the 150 home site north west of Twyford and the 80 home site at Swallowfield, both of which abut and modestly intersect the fluvial flood zone. Finally, with regards to Scenario 1, which comprises just the sites that are a constant across the scenarios, it is important to note that there are some significant flood risk issues, as discussed in Part 2.

- **Climate change mitigation** – it is inherently challenging to differentiate between the scenarios, including because there can be tensions between objectives around minimising per capita built environment emissions on the one hand and, on the other hand, minimising per capita transport emissions. With regards to transport emissions, matters have already been discussed above, and are discussed further below, under Transport.

Focusing on **built environment emissions**, whilst it is understood that there will be a policy requirement for net zero developments across all sites (involving ten homes or more), it is nonetheless very important to support schemes where there is a particular locational or site-specific opportunity, or where the land-owner / promoter is proposing a particular focus on decarbonisation measures (which invariably lead to significant cost). As a broad rule of thumb, large strategic schemes can lead to an opportunity over-and-above smaller scale schemes, and this assumption is reflected in the approach taken to ranking the performance of the reasonable growth scenarios, i.e. Scenario 12 is tentatively identified as best-performing, because there would be a major focus of growth at two large strategic schemes. It is difficult to conclude that any of the large strategic sites in question are associated with a *particular* opportunity, on the basis of the available evidence, and noting uncertainties at this stage regarding what is achievable and viable (given competing funding priorities); however, work to identify site and scheme specific opportunities has been undertaken for both Hall Farm LV (Renewable Energy Provision Statement, 2021) and Ashridge (submitted promoter materials, 2021), and it is also the case that these sites are notably larger than East of T/R, so it is appropriate to highlight Hall Farm LV and Ashridge as the preferable sites. Comparing the two, it is fair to highlight that Ashridge could benefit from being a more nucleated scheme, although Hall Farm LV could be associated with an opportunity due to its mixed use nature and/or drawing ambient heat from the River Loddon.

With regards to effect significance, there is a need to balance an understanding that climate change mitigation is a global consideration, such that local actions can only ever have a limited effect, with the fact that there is a highly ambitious local net zero target in place. On this basis, and on balance, it is considered appropriate to flag a concern with all scenarios. This reflects a view that the 2030 net zero target date is so ambitious that decarbonisation must be a key driving factor influencing spatial strategy, site selection and development of site-specific proposals.

- **Communities** – with the matter of access to community infrastructure already having been a focus of discussion above (under 'Accessibility'), the focus here is on supporting successful place-shaping/making, including avoiding impacts to existing communities (N.B. a further key matter at the 2020 Draft Plan stage was the AWE safety zone, but this is now less of an issue for the SA process, because there is absolute clarity on the extent of the zone).

Large strategic site options give rise to a particular opportunity in respect of place-making, as understood from recent experience in the Wokingham context. Taking the three options in turn:

- Ashridge gives rise to very low concerns regarding direct impacts to existing communities, although there are concerns regarding indirect impacts, in terms of traffic and pressure on community infrastructure.
- Hall Farm LV is associated with a particular place-making opportunity – with the river corridors and woodlands providing a structural framework for masterplanning, and the potential for new communities to integrate with a regionally significant employment cluster, itself with a clear masterplanning vision (the four valleys) – and enhancing the river corridor as a strategic green/blue infrastructure asset represents a significant opportunity, with the potential to benefit existing as well as new communities, e.g. residents of Lower Earley. There is an issue around impacts to the existing communities within Shinfield and Arborfield parishes, both of which have seen, and continue to see, very significant growth through the Shinfield Parish (South of the M4) and Arborfield Garrison SDLs; however, in both cases the historic cores of these settlements are set back from the Hall Farm LV site, and there is good potential to mitigate impacts through masterplanning (e.g. use of land north of the river for employment will be supportive of ensuring Shinfield's distinct sense of place; with regards to Arborfield, south of the river, this could benefit from further investigation (see discussion under Historic Environment).
- East of T/R performs less well, because of a concern regarding impacts to existing communities over-and-above the other two large strategic site options. It is also important to note that the East of T/R includes a permanent Gypsy and Traveller site, which would certainly be impacted, and, in all likelihood, enveloped by any strategic expansion scheme, which leads to the possibility of negative impacts on the existing Gypsy and Traveller community, given a tendency for Gypsy and Traveller communities to prefer a degree of isolation or, at least, separation from 'bricks and mortar' communities. There would be good potential to relocate the site as part of the development; however, the Gypsy and Traveller community might have concerns about any such plan.

With regards to the smaller site options that are a variable across the growth scenarios, the key consideration is high growth at Hurst and Swallowfield under Scenarios 3 and 11 (also Scenario 2 in the case of Swallowfield). There is perhaps greater concern regarding the site at Swallowfield, due to a need for vehicular and pedestrian access from a narrow rural lane, plus it is difficult to see how the scheme could deliver anything in the way of significant planning gain (there is seemingly no potential to plan comprehensively for growth south of Swallowfield in order to deliver a primary school for the village). As for the site at Hurst, there is a firm proposal to deliver significant new public open / green space and play facilities in a central location within the village, and the scheme would serve to nucleate the village to some extent. Both sites in question are well contained (particularly so the site at Swallowfield), such that there are few if any concerns regarding long term 'sprawl'.

- **Economy** – the overriding consideration here is the potential for housing growth directed to Hall Farm LV to support, indeed enable, the University of Reading's aspiration to create an International Employment Hub based around the Four Valleys of Cinema, Heritage, Medical and Nano. Progress has already been made towards achievement of the vision (most notably in the form of Thames Valley Science Park), and is set to continue regardless of strategic housing growth (most notably in the form of Shinfield Studios), but realising the vision in full is likely to require strategic housing growth to the south, on land also owned by University, including so as to fund and deliver major new road infrastructure. Furthermore, bringing forward an aspirational major new community adjacent (or near adjacent, given the intervening river valley) will be supportive of the Four Valleys vision. In summary, there is certainly a significant opportunity, although there is still a need to consider the option of achieving a version of the Four Valleys vision without strategic housing growth. Delivering a major new medical facility, potentially in the form of a new hospital, would certainly represent a highly significant opportunity, and one that could probably only be realised alongside strategic housing growth, because there would be a need to fund and deliver M4 Junction 10a, but there is no certainty, at the current time, in respect of what type of medical facility, if any, would come forward.

None of the other sites that are a variable across the growth scenarios would deliver large-scale new employment land, although there would be some small scale opportunities associated with the other two large strategic sites, and the site north west of Twyford is identified by the Non-strategic Sites Report (2021) as having potential to deliver 4ha of employment land (in a good location, on the A4). Under all of the scenarios without Hall Farm LV there could be a risk of employment land needs not being met, and this could be a particular concern under higher growth scenarios (because there could be a greater disconnect between jobs and population locally, potentially leading to problematic out commuting); however, there is considerable uncertainty at the current time regarding employment land needs, e.g. in light of homeworking trends (N.B. Wokingham is not discussed as a location particularly well suited for warehousing/distribution uses, which is a key employment land issue regionally and nationally).

Other than enabling or facilitating delivery of new strategic employment land, a further, less significant consideration is delivering new homes in locations well-linked to existing centres of employment, with a view to supporting those centres to thrive and potentially grow. A number of the sites that are a variable across the growth scenarios are associated with merit, notably sites along the A4 road (and rail) corridor. N.B. a final consideration is the risk of negative effects due to problematic traffic congestion under Scenario 12.

- **Historic environment** – all three of the large strategic site options that are a variable across the growth scenarios are associated with notable constraint, as are the two smaller strategic sites (Blagrove Lane and Barkham Square). However, it is East of T/R that stands out as most constrained, as it seems clear that there would be a significant impact to the setting of Ruscombe Conservation Area, where there is a grade 1 listed church and six other listed buildings. Furthermore, there is a need to consider the value of historic links between Ruscombe and assets / clusters of assets in the surrounding countryside, including Hare Hatch to the north east. There is little reason to suggest that historic environment impacts are a 'showstopper', but there is a need to flag a significant risk at this current stage, ahead of further work on masterplanning etc and consultation with Historic England.

With regards to Hall Farm LV and Ashridge, both are associated with one stand-out cluster of assets, but in both cases it is safe to assume that the cluster would be integrated as part of the strategic green infrastructure network. In the case of Ashridge, there is a cluster of five listed buildings associated with Bill Hill Park, plus there is a remnant parkland landscape; however, the firm proposal is for land here to mostly (though not entirely) be used for accessible greenspace, and there could be an opportunity around opening-up access to former parkland west of the M4.

With regards to Hall Farm LV, the primary concentration of assets is considered likely to be at Hall Farm itself, where there is a grade 2 listed farmhouse and an adjacent ruined church, which is a scheduled monument, and where there is a listed tomb. This is a historic river crossing, and there remains a public footbridge over the river, hence the assets may be quite well appreciated; however, there will be good potential to conserve the assets as part of a green/blue infrastructure strategy. A final consideration is the remnant parkland landscape adjacent to the west of Hall Farm / the ruined church, associated with Arborfield Hall (demolished 1955), its lodge houses (still present), Arborfield Grange (not listed) and a grade 2 listed rectory. The current high level concept masterplan suggests developing this land for residential, which potentially gives rise to a cause for concern, but significance is unclear, given few listed buildings, and it is recognised that there would be further masterplanning work undertaken.

Briefly, with regards to the other sites in question:

- Barkham Square - there is only one Grade II listed building in the vicinity (c.100m), but there would be an impact to the landscape gap to the historic village of Barkham (albeit no designated conservation area), which stretches along Barkham Street with historic cores at either end (the southern core being of particular note). There would also likely be some traffic through the Arborfield Cross Conservation Area, although Arborfield Cross benefits from a recently opened relief road, and development traffic might follow this route.
- Blagrove Lane - is also considered to be relatively unconstrained. However, there are two adjacent small historic farmsteads - one comprising a cluster of three grade 2 listed buildings and the other four - which are likely associated with a rural/agricultural setting, and which may contribute to a sense of historic settlement separation / historic landscape character. A further consideration is a known 'archaeological site' that intersects the site.
- The three other smaller sites in question – are all seemingly quite unconstrained. In the case of the Hurst site, the site currently under consideration does not extend to the A321 Broadwater Lane, where there is a cluster of assets. In the case of Twyford, the site in question is associated with a landscape potentially with archaeological significance, noting the major cluster of scheduled monuments a short distance to the west.

- **Housing** – Scenario 12 clearly performs well, as a high growth scenario that would give the flexibility to potentially set the Borough’s housing requirement above Local Housing Needs (LHN), in order to seek to meet a higher proportion of affordable housing needs and/or enable flexibility to provide for any unmet needs that may arise from other constrained local authorities in the sub-region. However, as a strategy involving a major focus on strategic growth locations, there would be inherent delivery risk, such that there would be a need to ensure a very substantial ‘supply buffer’ over-and-above the established housing requirement, in order to avoid a situation whereby WBC struggles to maintain a five year housing land supply (measured against the housing requirement), or fails the Housing Delivery Test, over the course of the plan period, leading to the plan being seen as out-of-date and the presumption in favour of sustainable development potentially being triggered (NPPF paragraph 11).

In light of these points, Scenarios 9, 10 and 11 are judged to perform equally or nearly as well as Scenario 12. In particular, Scenario 11 performs well, because Hall Farm is judged to be associated with relatively low delivery risk, in comparison to Ashridge, given one major land-owner (University of Reading) and a second major land-owner, with developer involvement, for a part of the site that is understood to be relatively straight-forward to deliver. With regards to Ashridge, whilst it is recognised that delivery concerns are already ‘baked-in’ to the assumed capacity of 2,000 homes in the plan period (the site promoters suggest 3,000), it is nonetheless considered appropriate to flag a delivery concern with scenarios involving this site over-and-above equivalent scenarios involving Hall Farm. This reflects an understanding that land-ownership is relatively fragmented, with more work needed to demonstrate that land-owners are set to work together effectively, and also uncertainties around road infrastructure upgrades (albeit it is recognised that this also applies strongly to Hall Farm LV).

With regards to Scenario 8, this is judged to also perform well, given that there would be a significant supply buffer over-and-above LHN (which would be set as the housing requirement). A healthy supply buffer is not only important in order to account for delivery risks, but also to account for the possibility of the plan’s base date being brought forward. Delivery has been very strong over the three monitoring years since the start of the plan period, and is set to be very strong for the immediately forthcoming monitoring years, such that bringing the plan base date forward (perhaps to 2023/24, when adoption is anticipated) would likely result in a need for more homes from allocations in comparison to a 2018/19-based plan (see Appendix K of the Revised Growth Strategy consultation document).

With regards to the low growth scenarios, these inherently perform relatively poorly, albeit these are associated with low delivery risk, on account of either involving no large strategic allocation, or involving allocation of East of T/R, which is understood to be associated with notably low delivery risk, with a housebuilder in control of the whole site and a need for less significant new road infrastructure upgrades than is the case for either Hall Farm LV or Ashridge (recalling that the site is significantly smaller). Other ‘housing’ factors to consider include:

- Supporting a good mix of housing types and tenures – there are likely to be opportunities at strategic sites over-and-above non-strategic sites, though any of the sites in question would likely be policy compliant.
- Supporting specialist accommodation – there are currently no firm proposals, but this could be an option to explore, particularly at the large strategic sites (there could be greatest flexibility at Hall Farm).
- Locally arising housing needs – cannot be quantified with any certainty (unlike borough-wide LHN), but will undoubtedly exist. Twyford is discussed as potentially being associated with locally arising housing need, recognising that the north of the Borough has seen significantly less recent housing growth than the south.
- Proximity to growth locations – can be a factor leading to delivery risk, due to overlapping housing markets / a risk of market saturation. In this respect, it is noted that Blagrove Lane is quite close to Hall Farm LV.

- **Land soils and resources** – the key consideration here is loss of best and most versatile (BMV) agricultural land, which is that of grade 1, grade 2 or grade 3a quality. There is a nationally available dataset covering the entire Borough, but this is very low accuracy (it does not differentiate between grade 3a and grade 3b) and low resolution (it does not recognise some smaller villages as urban areas). There is also the potential to undertake detailed work, including soil samples, and submit the results to a second nationally available dataset (available at magic.gov.uk); however, this data set covers only a small proportion of the Borough (the work is typically undertaken as part of planning applications). The table below considers each of the variable sites in turn.

In light of the table it is fair to highlight scenarios involving Ashridge and Barkham Square as performing relatively well, as there would be good potential to avoid loss of BMV, and to highlight scenarios involving East of T/R and NW of Twyford (albeit this is a smaller site) as performing relatively poorly. With regards to effect significance, all scenarios would likely involve significant loss of BMV land, once account is taken of the sites that are a constant across the scenarios, hence 'significant negative effects' must be predicted.

N.B. A further consideration is the need to avoid sterilisation of minerals resources that could potentially be viably extracted, informed by the Central and Eastern Berkshire Joint Minerals and Waste Plan, which is at an advanced stage. The submitted [policies map](#) suggests that all three of the large strategic site options may be associated with winnable minerals, hence the potential for prior extraction would need to be investigated.

Site	Low resolution/accuracy dataset	Detailed survey work?
Hall Farm	Grade 3 (bar river corridor grade 4)	No (but nearby grade 3a and 3b)
Ashridge	Grade 3 (majority) and grade 4	Circa 50% surveyed - mainly grade 3b
East of T/R	Mostly grades 1 and 2 (some grade 3)	No
Barkham Square	Mostly grade 4 (some grade 3)	No
Blagrove Lane	Grade 3	Eastern section surveyed - grades 2 and 3a
NW of Twyford	Grade 1	No (but grade 2 nearby)
Hurst	Grade 3	Grades 3a and 3b
Swallowfield	Grade 3	No (but grade 2 nearby)

- **Landscape** – it is difficult to differentiate between the scenarios on the basis of the available Landscape Character Assessment (2004 and 2020 update), which identifies most if not all of the sites in question as being associated with character areas with 'moderate' sensitivity. However, further evidence comes in the form of the Valued Landscapes (VLs) Topic Paper (2020). This notably identifies: much of the land within Hall Farm LV (specifically the river corridor and land to the north) as falling within the proposed River London VL; the north-eastern part of Ashridge (specifically that part that was Ashridge Wood until the late 20th Century) as falling within the proposed Billingbear VL; and the northern part of Barkham Square (specifically that part closest to the stream confluence) as falling within the proposed Barkham and Bearwood LV.

On the basis of this evidence, it is fair to highlight East of T/R as performing relatively well, of the large strategic site options; however, the site is not without its sensitivities, recognising that this is a relatively open and expansive chalk geology-influenced landscape, and also noting the network of PROWs linking to key destinations, including a bridleway linking to the historic settlements of Wargrave to the north and Waltham St. Lawrence to the east (where it meets an established bridleway circuit).

It is also important to note that East of T/R site falls within the Green Belt, within which there is a need to "safeguard the countryside from encroachment" and maintain "openness". The Growth Scenarios Report (2018) proposed a defensible Green Belt boundary in the form of a boundary road with a large area of publicly accessible open space / green space beyond; however, it is noted that the site promoters stated through their 2018 response that: *"Whilst this would establish a set boundary to the development, it is considered that this would not necessarily result in the most appropriate solution to promote high quality place making. Alternative options to this approach include for example an attractive built edge with high quality landscaping beyond... to form a defensible Green Belt boundary."*

Returning to Hall Farm, a further key consideration is the potential to deliver a major new area of riverside parkland, which would certainly be of strategic value to residents of existing nearby communities, and potentially even more widely, if the outcome is a situation whereby the River Loddon corridor, between Reading and the Thames, is widely known for its accessibility. A long distance path is a possibility, and regional park designation might feasibly be explored, e.g. akin to the Colne Valley Regional Park (albeit the Colne Valley benefits the Grand Union Canal). There is also the simple fact that the site offers an opportunity for growth to be 'contained' within a river valley.

Returning to Ashridge, there is a notably low density PROWs in this area, and the main road corridors are likely to be significant detracting features; however, the LCA does identify a "strong sense of place"; and a further concern is in respect of long term eastwards 'sprawl' over time, along the A329(M) corridor between Reading and Bracknell. Whilst it is recognised that there are arguments in favour of organic settlement expansion over time, from an environmental planning perspective there are arguments for comprehensive long term planning (see NPPF paragraph 22, which suggests the need for a 30 year vision where "larger scale developments such as new settlements or significant extensions to existing villages and towns form part of the strategy for the area").

With regards to Barkham Square and Blagrove Lane, both sites are associated with a range of sensitivities (also potentially certain opportunities), but a primary consideration is potentially the risk of erosion of settlement separation under a scenario whereby both sites come forward in combination. There is a need to take a long term perspective, and avoid any risk of the Wokingham urban area extending beyond the valley of the Emm Brook, such that there is a risk of it spilling southwards into the valley of the Barkham Brook.

Finally, with regards to the three smaller sites, none are thought to be associated with particular landscape sensitivity. All are quite well contained by features in the landscape (transport infrastructure, woodlands, strong hedgerows) and/or a flood risk zone (which does not provide visual containment, but serves to contain further expansion). The site at Hurst would notably alter the built form of the village (which is currently quite dispersed), and the site at Twyford would extend the village north beyond the A4 (Charvil, to the west, already extends north of the A4), but on balance none of the sites are considered to be significantly constrained in landscape terms.

In conclusion, it is not possible to differentiate between the growth scenarios with any certainty, on the basis of the available evidence, other than to highlight Scenario 1 (low growth) as performing well. From a landscape perspective it does appear that the Borough is potentially constrained in the sub-regional context, with no easy choices, and real concerns regarding maintaining settlement separation and landscape character in the long term.

- **Transport** – traffic modelling has explored a number of scenarios that enable consideration to be given to the merits of Hall Farm LV and Ashridge, though not any of the other sites that are a variable across the growth scenarios.

With regards to Hall Farm LV, a key issue is understood to be uncertainties around commuter flows associated with the employment areas, plus there is uncertainty regarding the potential to deliver a new M4 junction (which would certainly be necessary under a scenario where a hospital is delivered onsite). There would be more than 2km between junctions (an important safety consideration), and the effect could be to relieve pressure on existing junctions 10 and 11; however, junctions in relatively close proximity can give rise to an issue whereby the motorway is used by local traffic ("junction hopping"). Furthermore, it is important to consider the strategic value of upgrades or a new road link road between the M4 and the A327, leading to the M3.¹ There are a range of other important transport considerations, which would need to be explored further; for example, there would also be the potential to relieve pressure on Mill Lane, where there is a single land bridge over the River Loddon.

- With regards to Ashridge, the key consideration is that there would only be the potential for a 'half junction' onto the A329(M), from the A321 (specifically, east bound slips only), because westbound slip roads would be too close to the existing A329(M)/M4 junction. This would lead to trips being forced to use inappropriate links which are already subject to high flows and pass-through local villages to access the strategic network. This is a significant issue; however, again there is a need for further work, both around road infrastructure and potential for trip internalisation and offsite movements by walking, cycling and shared / public transport. The site does benefit from being located on an existing strategic public transport corridor, more so than Hall Farm LV, and it could be that development here delivers or facilitates strategic enhancements to this corridor, linking Bracknell and Reading.

¹ The [Transport Strategy for the South East](#) (2020) identifies the following priority initiative: "Improve orbital links between the M3 and M4, ideally in a way that avoids directing heavy traffic through urban areas such as Bracknell."

With regards to East of T/R, the potential to deliver a new village centre relief road (or at least partial relief road) has already been discussed above. Another key consideration is proximity to Twyford station, which already benefits from a good rail service to London Paddington and Reading/Oxford (also the branch line to Henley), and which is set to see an enhanced service in 2022 upon arrival of Crossrail/Elizabeth line services that will link directly to key destinations within London. The scheme could also potentially facilitate delivery of a new multi-storey car park for the rail station (although this is uncertain, with the site comprising part of a well-used recreation ground) and could also potentially support strategic enhancements to the A4 as a 'sustainable transport' corridor.

With regards to the other site options in question, transport-related matters have already been discussed above, for example with Blagrove Lane highlighted as having some merit, on account of its links to Wokingham, and the option of higher growth at Swallowfield not supported from an accessibility / connectivity / transport perspective.

In conclusion: there is support for strategic schemes able to deliver new road / transport infrastructure upgrades; there is support for Hall Farm and East of T/R over Ashridge (albeit this conclusion is somewhat uncertain); and there is a significant concern over a high growth strategy involving allocation of both Hall Farm LV and Ashridge, including because an imbalance between jobs and homes locally could lead to problematic commuting, with implications for traffic and also per capita greenhouse gas emissions.

- **Water** – limited concerns were raised through the Water Cycle Study completed in 2019, or through the consultation in 2020. However, water quality is high on the agenda nationally, in particular the matter of avoiding capacity breaches at wastewater treatment works (WwTWs), hence it is appropriate to flag a risk of negative effects at the current time, subject to consultation responses being received from the Environment Agency. It is recognised that the Ashridge site promoters have proposed a network of four 'living machines' within the site to deal with up to 95% of wastewater arising onsite (see figure below); however, there is a need for further evidence of deliverability.

As well as WwTW capacity, an important consideration is pollution of water courses from agricultural and other land uses. In this respect, there is a need to carefully consider the merits of Hall Farm LV, given its close association with the River Loddon. Much of the land here is currently used for dairy farming (the UoR Centre for Dairy Research), such that it could be that development (with integration of high quality SuDS), plus extensive areas of new riverside parkland, leads to a 'net gain' in terms of water quality, but this is uncertain at the current time.

Overall, it is considered appropriate to flag a risk at this current stage, ahead of further evidence-gathering (including further evidence provided by site promoters), and to flag a particular concern with Scenario 12, which would involve a high growth strategy and one whereby there could be a degree of in-combination effect, as there would be allocation of two large scale strategic sites that are potentially quite closely linked in water environment terms.

The preferred growth scenario

It is not the role of the appraisal to arrive at a conclusion on which of the reasonable growth scenarios is best, or 'most sustainable' overall. Rather, it is the role of the plan-making authority to arrive at that conclusion, informed by the appraisal.

The following statement explains WBC Officers' reasons for supporting **Growth Scenario 8**, in-light of the appraisal:

The appraisal shows Scenario 8 to perform well in a number of respects. Only Scenario 12 has more predicted significant positive effects, and this scenario also has more predicted negative effects. Indeed, Scenario 8 has only one predicted significant negative effect, which relates to loss of best and most versatile agricultural land.

Scenario 1 also stands out as performing relatively well in a number of respects, and is predicted to give rise to fewest negative effects (or 'tensions'). However, under Scenario 1 there is a predicted significant negative effect in terms of housing objectives, which the Council gives particular weight too. Also, there would be opportunities missed on account of a spatial strategy without a large strategic allocation, as would also be the case under Scenarios 2 and 3. As explained within the Revised Growth Strategy consultation document:

"Large scale developments are often the best solution to meeting development needs in a way that responds to the challenges of climate change. They offer an opportunity to design in sustainability from the outset including measures to lessen the need to travel by private car, so reducing our carbon footprint and impact on the environment and air quality, as well as planning for accessible green space, drainage management, biodiversity enhancements and renewable energy.

Our current Core Strategy local plan identified four Strategic Development Locations (SDLs), where new sustainable communities would be created... The SDLs are at different stages of delivery, but all have delivered new schools, roads, community facilities and open spaces.

In considering the new approach for the Revised Growth Strategy, our view is that our strategy for future growth should continue to be predominantly focussed on larger sites..."

With regards to the Scenarios 4, 5, 6 and 7, which would involve an alternative large strategic allocation in place of Hall Farm / Loddon Valley, the Revised Growth Strategic consultation document explains:

"The Hall Farm / Loddon Valley opportunity is considered the most deliverable and sustainable strategic option [of the three appraised]. It offers the opportunity to provide homes alongside jobs with the area in proximity to the Thames Valley Science and Innovation Park, Shinfield being proposed for a potential mixture of science and technology, film studios, educational and health uses. This potentially includes the full or partial relocation of the Royal Berkshire Hospital. The council's planning committee resolved to grant planning permission for a creative media hub including film stages and associated workshops and office space... on 13 October 2021.

The Hall Farm / Loddon Valley opportunity also allows the creation of a large publicly accessible green space or park along the River Loddon Valley, an area currently without public access. The river corridor provides a significant opportunity for comprehensive habitat management, restoration and enhancement...

The new community would be supported by a comprehensive package of infrastructure to incentivise sustainable behaviours and travel choices. This would include a framework to maximise opportunities for walking and cycling both within the new community and between the surrounding places (including a new connection over the M4 to Earley), primary schools and a secondary school, and neighbourhood centres."

Finally, with regards to higher growth Scenarios 11 and 12 the primary consideration is that these scenarios would likely involve a quantum of housing growth over-and-above that which is need to meet Local Housing Need (LHN). Furthermore, there a range of community, infrastructure and environmental concerns.

The Revised Growth Strategy

Part 2 of the Interim SA Report answers the question “what are appraisal findings at this stage” by presenting an appraisal of the Revised Growth Strategy as a whole.

In practice, this means revisiting the appraisal of Growth Scenario 8, as presented above, but with added attention given to the proposed allocations that are held constant across the growth scenarios.

The main report presents the appraisal as a series of narratives under the 13 ‘SA framework’ topic headings. The conclusions of each narrative are repeated below.

Accessibility

In **conclusion**, it is fair to adjust down the conclusion from the Draft Plan stage. Whilst the ISA Report published at that time predicted ‘significant positive effects’, it is now considered appropriate to predict more **moderate positive effects**, mindful that the strategy now involves a notably lower proportion of growth directed to a large strategic allocation, and a notably increased proportion of growth directed to non-strategic allocations in locations with relatively low accessibility / connectivity. However, the new proposed allocation at Hall Farm / Loddon Valley is strongly supported, from an accessibility perspective, as are a number of other changes to the proposed growth strategy. It will be appropriate to undertake further work to understanding the potential to set site-specific policy in support of accessibility.

Air and wider environmental quality

In **conclusion**, there is a degree of added concern, over-and-above that reported in the ISA Report published at the Draft Plan stage; however, this is of limited significance. Taking a precautionary approach, it is appropriate to predict risk of **moderate negative effects** at this stage, but there will be the potential to alleviate concerns through further work prior to plan finalisation, to include preparation/finalisation of site specific and borough-wide development management policy. A stand-out concern is potentially in respect of Twyford crossroads AQMA, hence it could be appropriate to undertake work to confirm no significant adverse impact on air quality here as a result of increased traffic. A second headline concern is in respect of growth locations in proximity to a major source of air and/or noise pollution, including the M4.

Biodiversity

In **conclusion**, there is a degree of added concern, over-and-above that reported in the ISA Report published at the Draft Plan stage, most notably associated with a new proposed allocation adjacent to a SSSI, albeit it is recognised that there will be very good potential to buffer the SSSI with open/greenspace within the site boundary, and take other steps to ensure a biodiversity net gain. On this basis, it is appropriate to ‘flag’ the **risk of negative effects** at this stage. With regards to Hall Farm / Loddon Valley, as a large strategic site there will be excellent potential to design-in green/blue infrastructure, so as to avoid sensitive areas and ensure well-targeted habitat creation/enhancement; however, on balance, at this early stage, it is appropriate to flag a biodiversity risk, given the inherent sensitivity of the river corridor.

Climate change adaptation

In **conclusion**, Hall Farm / Loddon Valley is strongly associated with River Loddon corridor, and hence there is a degree of concern ahead of detailed work to confirm the potential to deliver a successful new community whilst avoiding flood risk from all sources and any worsening of down-stream flood risk (noting that there could be the potential for a betterment of the current situation). It is also the case that a significant proportion of the package of smaller allocations intersect a flood risk zone. On this basis, there is a need to flag the **risk of a negative effect** at this stage. There will be good potential to avoid and mitigate risk through masterplanning and development management policies.

Climate change mitigation

In **conclusion**, Hall Farm / Loddon Valley certainly represents a good opportunity to minimise per capita built environment emissions; however, it is difficult to conclude that it represents a particular opportunity, over-and-above other competing large strategic site options, and there is also a need to factor in other proposed allocations, as well as emissions from transport. On balance, at this stage, it is appropriate to flag the **risk of a negative effect**, albeit it is recognised that the baseline situation is one whereby growth likely comes forward in a less planned way, with decarbonisation opportunities missed. This conclusion reflects the stretching nature of the Borough’s 2030 net zero target, which necessitates a high level of ambition, and means that decarbonisation must be a key issue ‘driving’ spatial strategy and site selection.

Communities

In **conclusion**, as per the Draft Plan stage it is judged appropriate to predict the likelihood of the LPU leading to **positive effects**, in respect of 'communities' objectives (recalling that objectives relating to community infrastructure and environmental health are discussed above under other headings), albeit there remains a degree of uncertainty at this stage ahead of further work, e.g. to understand in detail the potential to avoid impacts to the existing communities and Shinfield and Arborfield, and the potential for upgrades to walking and cycling infrastructure to benefit existing communities.

Economy

In **conclusion**, **significant positive effects** are predicted, as per the Draft Plan stage, although there could be a need for further work to confirm that quantitative and qualitative employment land needs will be met in full through the LPU, mindful of the shifting national and sub-regional context.

Historic Environment

In **conclusion**, there are clear historic environment sensitivities, but this is unavoidable in the context of most Local Plans, and there is a need to consider that a baseline scenario, whereby the Local Plan is not progressed (by the Council), would in all likelihood see development coming forward in locations that are problematic from a historic environment perspective. On balance, it is considered appropriate to flag a **risk of minor or moderate negative effects** at this stage, noting several allocations with onsite or adjacent (or near adjacent) listed buildings, including grade 2* listed, and given a cluster of historic assets at Hall Farm / Loddon Valley. It is noted that Historic England raised fairly limited concerns through the Draft Plan consultation in 2020 (see discussion in Section 5.2, above), but did emphasise the importance of detailed site specific policy and an enhanced historic environment evidence base.

Housing

In **conclusion**, changes made since the Draft Plan stage are very positive, from a housing perspective, and so it is possible to predict the likelihood of **significant positive effects**. There remain a range of uncertainties around viability and delivery risks, but this is invariably the case for Local Plans, and the proposal is to mitigate against these risks by putting in place a diverse housing land supply and a supply buffer (over-and-above the housing requirement, which will be set at LHN) of around 19%.

Land, soils and natural resources

In **conclusion**, a primary consideration relates to loss of best and most versatile (BMV) agricultural land. In this respect: there is a concern associated with the focus of growth along the A4 corridor; at least one of the proposed allocations elsewhere is known to comprise BMV land; and the likelihood is that other proposed allocations (potentially to include Hall Farm / Loddon Valley) comprise BMV land. As such, as per the Draft Plan stage, there is a need to predict **significant negative effects**.

Landscape

In **conclusion**, there are a wide range of landscape sensitivities, including concerns regarding impacts to locally designated Valued Landscape, and concerns around maintaining long term settlement separation and character / distinctiveness. However, on the other hand, there is a major opportunity associated with Hall Farm / Loddon Valley, around increasing access to the River Loddon corridor/valley, and delivering targeted enhancements. Also, the great majority of proposed allocations give rise to limited concerns from a landscape perspective, including because they are well-contained by robust landscape features (e.g. roads, woodland, mature hedgerows) or a flood risk zone, which serves to reduce concerns around future development creep or 'sprawl' of the urban areas. On balance, at this relatively early stage in the plan-making process, and as per the Draft Plan stage, there is the need to flag the **risk of negative effects**. There will be good potential to avoid and mitigate impacts through masterplanning and design.

Transportation

In **conclusion**, there is a clear opportunity associated with Hall Farm / Loddon Valley, albeit also some locational challenges, given that the site falls between transport road corridors. With regards to other proposed locations, it is not clear that any give rise to a particular concern, but it is important to consider the in-combination effect of numerous smaller allocations spread quite widely across the Borough. At this stage **positive effects** are tentatively predicted, but there will be a need for further scrutiny.

Water

In **conclusion**, it is considered appropriate to flag a **risk of negative effects** at this current stage, ahead of further evidence-gathering, including discussions with statutory consultees. Limited concerns were raised through the Water Cycle Study completed in 2019, or through the consultation in 2020; however, water quality is high on the agenda nationally, in particular planning for waste water treatment capacity.

Overall conclusions on the Revised Growth Strategy

In conclusion, the appraisal predicts:

- **Significant positive effects** - in respect of Economy and Housing objectives – because the proposal is to provide for housing needs in full and support the realisation of a strategic economic growth initiative;
- **More moderate or uncertain positive effects** - in respect of Accessibility, Communities and Transport;
- **Notable tensions / risk of negative effects** - in terms of objectives relating to Air quality, Biodiversity, Climate change mitigation and adaptation, Historic environment, Landscape and Water objectives; and
- **Significant negative effects** in respect of loss of BMV agricultural land.

There will be much potential to address issues and opportunities discussed within this appraisal prior to plan finalisation, including through development management policies.

Cumulative effects

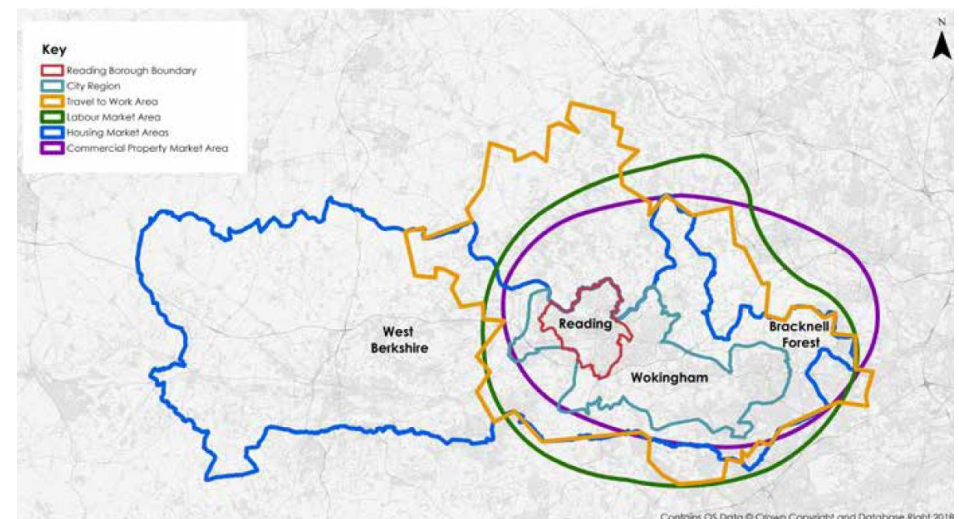
The SEA Regulations, which underpin the SA process, indicate that stand-alone consideration should be given to 'cumulative effects', i.e. effects of the Local Plan in combination with other plans, programmes and projects that can be reasonably foreseen. In practice, this is an opportunity to discuss potential 'larger than local' effects. The following bullet points cover some key considerations:

- **Reading** – both the new SDL at Hall Farm / LV and the proposed new allocations within the South of the M4 (Shinfield Parish) SDL will 'look towards' Reading for higher order services and facilities, employment and retail, and there is a clear opportunity for new employment land to support Reading as a primary economic hub within the sub-region and more widely, plus there will be the potential to support new transport infrastructure upgrades to the benefit of Reading as a sub-regional hub.
- **Bracknell** – three new proposed allocations adjacent or close to the boundary with Bracknell, including the proposed extension to the South of Wokingham SDL (835 homes), serve to highlight the importance of close working, including in respect of transport infrastructure (notably the A329)M, A329/B3408 and B3430), economic / employment growth strategy and environmental planning.

- **Transport infrastructure** – aside from Hall Farm LV, there is a need to ensure that the Revised Growth Strategy is supportive of aspirations for key transport corridors, including the A4, A329 / A329(M) and A33 corridors (as far as possible, given the AWE Burghfield Detailed Emergency Planning Zone).
- **Employment** – aside from Hall Farm LV, there is a need to ensure that the Revised Growth Strategy is meeting quantitative and qualitative employment land needs, including key strategic locations, guided by discussions with partner organisations including the LEP and neighbouring authorities.
- **Thames Basin Heath SPA** – the matter of in-combination impacts to the SPA is a focus of a stand-alone Habitats Regulations Assessment (HRA), noting that eleven authorities manage the SPA in partnership.
- **Landscape scale net gain** – there is a need to focus efforts on achieving conservation and 'net gain' objectives, in respect of biodiversity and wider ecosystem services, at landscape scales, including those discussed within the Wokingham LCA (also catchment scales). A Local Nature Recovery Strategy (LNRS) will be forthcoming, under the Environment Act, but steps must be taken in the interim.

The figure below highlights a range of important sub-regional geographies, and others might be added, for example landscape character areas, river catchments and wider functional areas suited to planning for natural capital and ecosystem services.

Select sub-regional geographies (Source: Draft Reading Local Transport Strategy 2036)



Next Steps

Publication of the Proposed Submission LPU

Subsequent to the current consultation it is the intention to prepare the proposed submission version of the LPU for publication in-line with Regulation 19 of the Local Planning Regulations 2012. The Proposed Submission LPU will be that which the Council believes is 'sound' and intends to submit for Examination. Preparation of the Proposed Submission LPU will be informed by the findings of this Interim SA Report, responses to the current consultation and additional evidence / appraisal work.

The SA Report will be published alongside the Proposed Submission LPU. It will provide all the information required by the SEA Regulations 2004.

Submission, examination and adoption

Once the period for representations on the Proposed Submission LPU / SA Report has finished the main issues raised will be identified and summarised by the Council, who will then consider whether the LPU can still be deemed 'sound'. If this is the case, the LPU will be submitted for Examination, alongside a statement setting out the main issues raised during the consultation. The Council will also submit the SA Report.

At Examination the Inspector will consider representations (alongside the SA Report) before then either reporting back on soundness or identifying the need for modifications. Modifications to the LPU will be prepared (alongside SA if necessary) and then subjected to consultation (with an SA Report Addendum published alongside if necessary).

Once found to be 'sound' the LPU will be formally adopted by the Council. At the time of adoption a 'Statement' must be published that sets out (amongst other things) 'the measures decided concerning monitoring'.

Monitoring

In-light of the appraisal monitoring efforts might focus on:

- Agricultural land – it is possible to monitor loss of agricultural land by grade.
- Air quality – the Council might review how air quality monitoring efforts are targeted in light of the Local Plan, including with a view to both understanding how air quality is changing over time within AQMAs and identifying problem areas outside of the existing designated AQMAs, including ecology-related.
- Biodiversity – there will be a need to develop a framework for ensuring that individual developments deliver biodiversity net gain in combination at landscape scales.

- Climate change adaptation –potentially monitor housing in close proximity to a fluvial flood zone (in addition to intersecting); also the 1 in 30 yr surface water flood zone.
- Climate change mitigation – there is a need to carefully consider how Local Plan monitoring links to wider monitoring of borough-wide emissions. On a specific point, it could be appropriate to monitor the proportion of new homes linked to a heat network (e.g. district-level); also the proportion of homes delivered to standards of sustainable design and construction that exceed building regulations.
- Employment land requirements – given that the Employment Land Needs Study is now nearly two years old, and the regional and national economic context and baseline situation has evolved since that time;
- Housing – the Council already monitors numerous housing delivery related matters through the Housing Land Supply Statement and Monitoring Report, and the list of indicators should be kept under review.
- Transport – at Hall Farm / Loddon Valley there will be merit to monitoring the travel behaviours of residents in detail, in order to test the hypothesis that per capita emissions from transport can be minimised at major growth locations.
- Water – ongoing consideration should be given to any risk of capacity breaches at WWTWs and other risks to the status of water courses.

*View north-east along River Loddon corridor across Hall Farm LV
(Source: Wokingham Borough Level 2 SFRA, Stantec, 2021)*

