



GL Hearn

Part of Capita Real Estate

New Settlement Scoping Study

Aylesbury Vale District Council

June 2016

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DATE

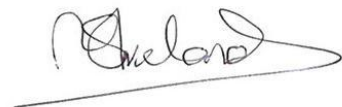
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Limitations

This document has been prepared for the stated objective and should not be used for any other purpose without the prior written authority of GL Hearn; we accept no responsibility or liability for the consequences of this document being used for a purpose other than for which it was commissioned.

1 INTRODUCTION

1.1 Aylesbury Vale District Council (AVDC) is in the process of developing a new local plan, the *Vale of Aylesbury Local Plan* (VALP), to guide future development within the District. It is considering potential options for where to locate new development.

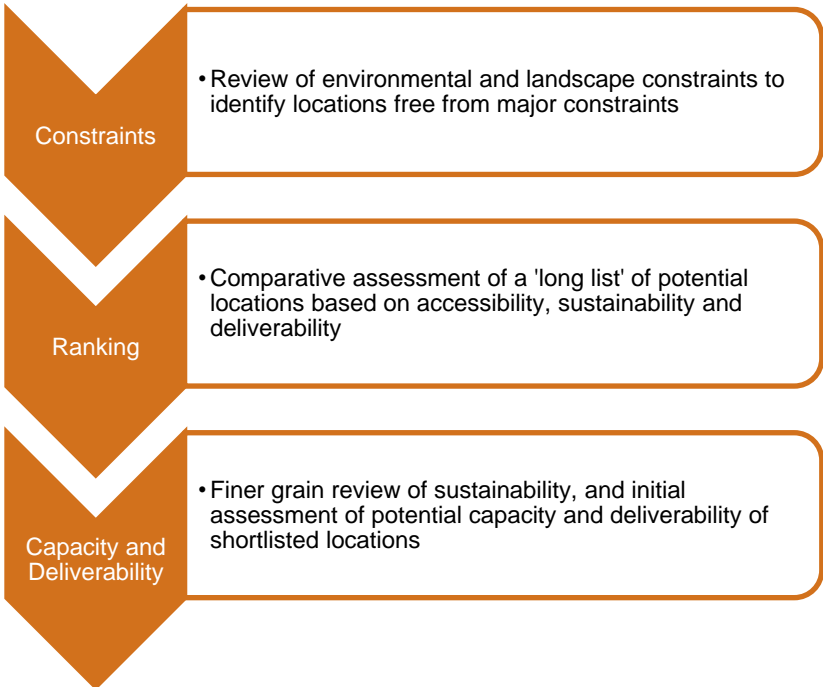
1.2 In the context of exploring a range of potential options for the distribution of new development, the Council has commissioned GL Hearn in conjunction with Capita and LDA Design Consulting Limited ('LDA Design') to undertake this New Settlement Scoping Study. The purpose of the Study is not to prejudge whether the Council should seek to deliver a new settlement within the Vale – but to provide an initial basis for considering the feasibility of this.

1.3 The Study thus considers the concept of a new settlement. A new settlement is defined in this context (as set out in the Council's Study Brief) as:

“growth of either a new freestanding community or enlargement of an existing community by over 50% of the population/ dwelling stock.”

1.4 The Study uses a structured process to consider potential options for a new settlement within the District, considering the following issues:

Figure 1: Overview of Process



- 1.5 **The Study should be seen as providing an initial scoping assessment.** It does not prejudge decisions the Council will need to make as to whether to take forward a new settlement option through the Vale of Aylesbury Local Plan, nor if this is taken forward, the potential location of this. It provides part of a technical evidence base which can be used to inform decision-making.
- 1.6 **If a new settlement option is taken forward through the Vale of Aylesbury Local Plan, there will inevitably need to be further detailed technical work, masterplanning and community engagement moving forwards. This includes further consideration of transport impacts and infrastructure requirements.**

Background

- 1.7 Aylesbury Vale District is a large mainly rural district with a high quality environment. Aylesbury is the county town of Buckinghamshire and is the largest town. Other strategic settlements include: Buckingham, Haddenham, Wendover and Winslow. The population of these is shown below:

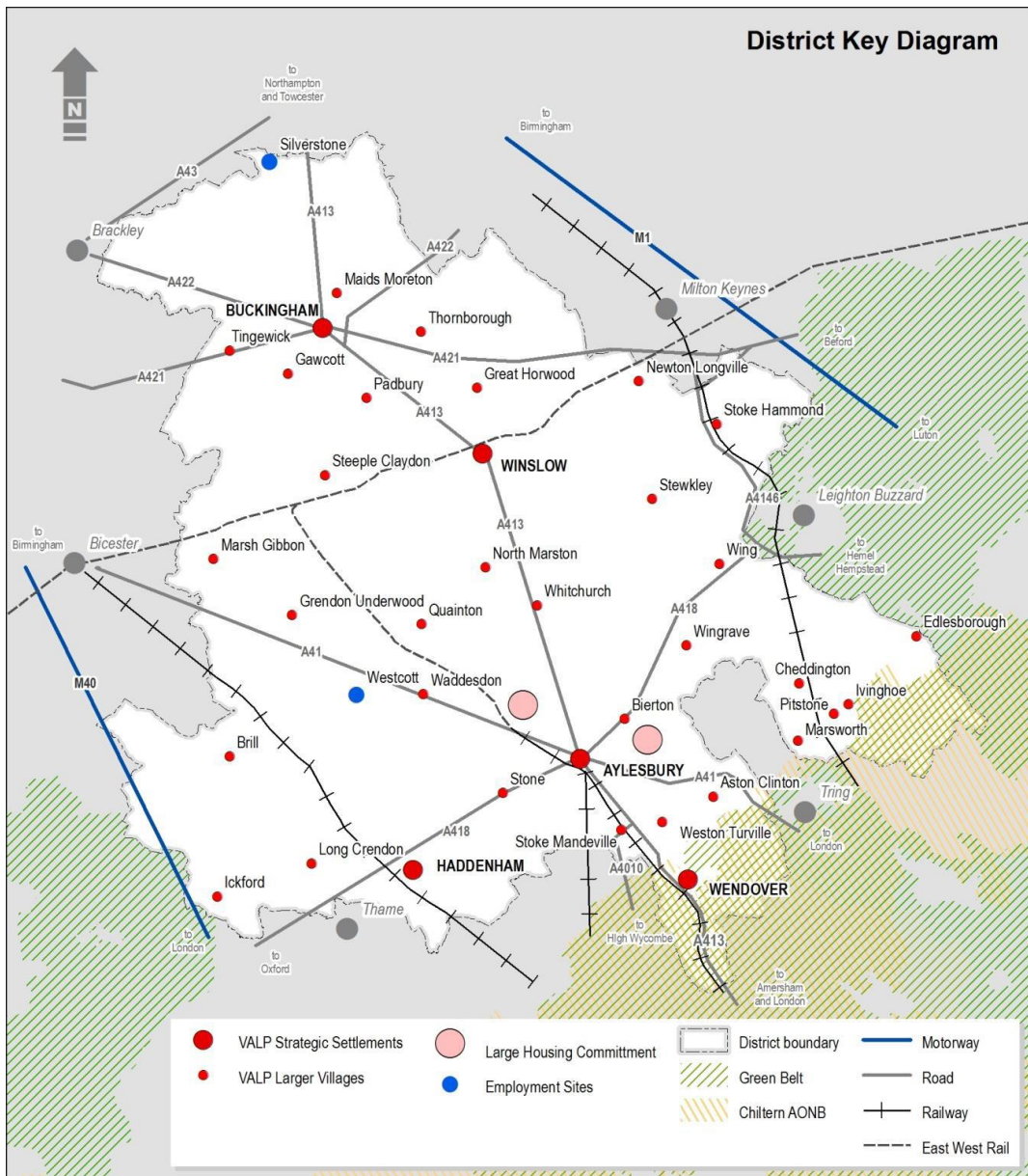
Table 1: Population – Key Settlements, 2011

	Population, 2011	% District's Population
Aylesbury	65,400	38%
Buckingham	10,400	6%
Wendover	7,200	4%
Winslow	3,800	2%
Haddenham	3,700	2%
Other Settlements/ Rural Areas	83,600	48%
District Total	174,100	100%

Source: 2011 Census

- 1.8 The only towns in the District with a population of over 10,000 are Aylesbury and Buckingham. The northern part of the district adjoins Milton Keynes. Bicester is situated to the west of the District, a short distance away. The south of the district includes part of the Chilterns Area of Outstanding Natural Beauty (AONB) and is located within the Metropolitan Green Belt.
- 1.9 It is recognised that adjoining districts to the south (South Oxfordshire, Wycombe, Chiltern and Dacorum) have significant environmental and policy constraints to development, including the Chilterns Area of Outstanding Natural Beauty and Metropolitan Green Belt (which also cover parts of Aylesbury Vale District). A map of the District and surroundings is shown below.

Figure 2: Aylesbury Vale District Geography



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Vale of Aylesbury Local Plan Context

- 1.10 The Council is currently preparing a new Local Plan for the District, the *Vale of Aylesbury Local Plan* (VALP). The Plan will set out a vision and framework for development in the District to 2033.
- 1.11 The preparation of a new Local Plan requires AVDC to consider and consult on, sustainable options to accommodate housing and other development needs. As part of this process the Council has sought to compile evidence on whether there is scope for a new settlement within the District and if so, where and whether a new settlement would offer a sustainable option to contribute towards meeting that need, compared with alternatives. This report helps to inform this process.

VALP Background

- 1.12 The first consultation on the Vale of Aylesbury Local Plan (VALP) was undertaken in Spring 2014. This sought views on the content and scope of the new plan. The consultation was accompanied by a call for sites in which developers and landowners were asked put forward sites which they believed would be suitable for development.
- 1.13 A second public consultation stage took place in October 2015 in which the Council published the *Vale of Aylesbury Local Plan – Issues and Options Consultation Document* supported by evidence studies. This set out potential options for distributing new development.
- 1.14 The need for housing and employment floorspace has been established through the *Buckinghamshire Housing and Economic Development Needs Assessment (HEDNA): Report of Findings - Consultation Draft, January 2016* (ORS and Atkins, January 2016). This considers housing and economic development needs across Buckinghamshire, taking account of the intended preparation of a joint local plan covering Chiltern and South Bucks, and the emerging Wycombe District Local Plan. The objectively assessed housing need for Aylesbury Vale is assessed as 21,300 homes over the 2013-33 period.
- 1.15 A unmet housing need arises from the duty to cooperate which will require Aylesbury Vale to accommodate a level of unmet need from more constrained neighbouring areas within the Housing Market Area. This is anticipated to significantly increase the amount of development required in the District. There is currently an estimated unmet housing need for 12,000 dwellings from other Buckinghamshire authorities.
- 1.16 The *Issues and Options Consultation Document* (Oct 2015) outlined that the Council was exploring a number of options for the distribution of development – including the possibility of a new settlement. It explained (at Para 5.8) that:
- “While this has been looked at and rejected in the past, we are consulting on this again since a new settlement could contribute significantly towards meeting the district housing requirement, which has increased, and provide flexibility on where to develop new housing. A new settlement can mean enlarging an existing settlement by more than 50% of the population/dwellings or developing a freestanding new community. A study is currently being carried out for us to assess the potential for a new settlement within the district. The study will also see how this would compare with other ways of providing new homes in Aylesbury Vale. The findings of the study will inform the Local Plan at the next stage of preparation.”¹*
- 1.17 The *Issues and Options Consultation Document* also defined the parameters of a new settlement option as follows:

¹ *Vale of Aylesbury Local Plan Issues and Options Consultation Document, Page 25*

“A new settlement is assumed capable of delivering 4,000 new dwellings over the plan period and more beyond. The figure of 4,000 is based on what reasonably might be expected to be delivered within the plan period and takes into account long lead times typical of development at this scale.”²

- 1.18 Five of the nine options (Options A - I) outlined in the *Issues and Options Consultation Document* included delivery of a new settlement. The anticipated contribution from a new settlement has since been further considered, and is expected to deliver 4,500 dwellings over the plan period to 2033.
- 1.19 The core purpose of this Study is to assess and outline options for the location of a new settlement in Aylesbury Vale with the potential to deliver 4,500+ new dwellings over the plan period 2013-2033 and beyond. It considers whether a new settlement is feasible or viable in principle, with the aim of informing the preparation of the Vale of Aylesbury Local Plan.

Study Context

- 1.20 The Study seeks first to identify potential locations which could accommodate a new settlement utilising available evidence of constraints and opportunities to identify potential candidate locations and assess their suitability. In doing so, the Study is particularly looking to identify locations which:
- i. Are of a scale capable of delivering at least 4,500 homes, together with associated employment, services, social and community infrastructure;
 - ii. Are substantially free from nationally-significant environment and policy designations and which avoid areas of higher landscape sensitivity;
 - iii. Are capable of accommodating new development within the pattern of existing land uses and would not be detrimental to the character and setting of existing settlements;
 - iv. Are served by (or capable of being served by) high quality and frequent public transport services which link it to higher order centres for employment and services;
 - v. Are capable, based on current information, of making a substantial contribution to housing delivery within the plan period to 2033 taking account of the potential strategic infrastructure needed to support development.
- 1.21 It then moves on to provide an initial assessment of a “long list” of options which have been iteratively refined through the preparation of the Study to identify a shortlist of two potential options. These are then interrogated in further details, considering potential ‘showstoppers’ and impacts.
- 1.22 The study has been conducted with extensive reference to the evidence gathered throughout the planning process for the now withdrawn Vale of Aylesbury Plan (VAP) and the emerging Vale of Aylesbury Local Plan (VALP). The data analysis has been supplemented as appropriate.

² *Vale of Aylesbury Local Plan Issues and Options Consultation Document, Page 27*

- 1.23 It is necessary for the Study to consider and take into account committed and planned infrastructure projects including:
- The East-West Rail Line - due to open in 2019. This will connect Aylesbury to Milton Keynes and Oxford/Bicester with a new station at Winslow, in the north of Aylesbury Vale.
 - The proposed Oxford to Cambridge Expressway - which aims to provide a high quality road link between the two cities potentially on the route of the A421 via Bedford and Milton Keynes will traverse the District. The detailed route for this has yet to be confirmed.
 - The High Speed 2 Rail Line - which is also set to run through the District with the route passing Wendover, Stoke Mandeville, Aylesbury, Waddesdon, Quainton and Calvert; and a planned maintenance depot expected to be delivered at Calvert.
 - Chiltern Evergreen Project – providing a direct rail link from the Chiltern Main Line at Bicester through to Oxford, with a new station at Oxford Parkway.
- 1.24 These major investments provide the potential to support new development, and enhance the potential for strategic development at certain locations within the Vale relative to the current situation. These are considered within the Study.
- 1.25 The Study does not undertake detailed masterplanning to consider the precise form or scale of development which could be accommodated; nor does it undertake a full assessment in the absence of this of the range of infrastructure which might be needed to support development and the viability of delivering this.
- 1.26 The delivery of a new settlement is inevitably likely to result in a need for substantial investment in infrastructure – in highways improvements, public transport infrastructure, utilities infrastructure (in water, waste water, electricity and gas), in social/ community infrastructure (which includes health, education, sports facilities and other local services) and in green infrastructure (including open space). The focus of this initial feasibility study has been on seeking to identify **showstoppers** which preclude delivery of strategic development at specific locations. This is likely to relate in particular to physical infrastructure (transport/ utilities).
- 1.27 To support delivery of major infrastructure, a cocktail of funding is likely to be necessary including funding through developer contributions as well as public funding support. This is likely to be the case whichever growth option is taken forward. Within this Study, consideration is given in particular to the comparative potential costs associated with growth at different locations. Infrastructure requirements and costs, and the potential funding of this, will need to be interrogated in further detail as planning for a new settlement progresses, if this is taken forward by the Council.

Report Structure

- 1.28 The remainder of the report is structured as follows:
- Section 2: defines what is meant by a new settlement, consider the concept and how potential locations for a new settlement might be considered;

- Section 3: outlines the Study approach to considering potential locations for a new settlement, which is structured around three stages;
- Section 4: reviews a “long list” of potential growth locations, 11 in number, and provides a commentary on the relative merits of each. This shortlists two locations for further consideration – Winslow and Haddenham;
- Section 5 and 6: considers the potential for strategic development at the two shortlisted potential locations, assessing the relative merits of each; and potential highways improvements needed;
- Section 7: addresses strategic issues to consider moving forwards, in respect of funding investment in infrastructure, the planning framework, and governance.

2 THE CONCEPT OF A NEW SETTLEMENT

- 2.1 This section sets out the policy context of developing new settlements with regard to the definition of a new settlement, its size, scale, required services and community infrastructure.
- 2.2 There is an extensive history of planned settlement development in Britain, with new communities planned for the public good burgeoning significantly during the late nineteenth century as Ebenezer Howard introduced the garden city model which was first exemplified at Letchworth. During this era, the development of new settlements was usually a benevolent activity.
- 2.3 In the post-war period, Government's involvement in the development of new settlements was characterised principally through the construction of 'new towns.' In total 32 new towns were designated in the UK between 1946 and 1970, during three phases:
- Mark One: designated between 1946 and 1950;
 - Mark Two: designated between 1961 and 1964; and
 - Mark Three: designated between 1967 and 1970.
- 2.4 Hemel Hempstead and Stevenage are examples of Mark 1 New Towns; whilst Milton Keynes, designated in 1967, is a Mark 3 example. In 1992, the Government ceased to classify New Towns as a specific public policy area. There are however some more recent examples of new settlements being taken forward – such as Cranbrook in Devon, the Wixams in Bedfordshire, or Cambourne and Northstowe in Cambridgeshire.
- 2.5 Government is now however increasing seeking to promote delivery of new “garden villages and towns” heralding a new phase of development of new settlements. We seek to explore this below.

Policy Context for New Settlements

- 2.6 The definition of a 'new settlement' requires consideration. In *Alternative Development Patterns: New Settlements* published by the Department of Environment in 1993, a new settlement was defined as a:
- “A free standing settlement, promoted by private and/or public sector interest, where the completed new development – of whatever size – constitutes 50 per cent more of the total size of a settlement, measured in terms of population/dwellings”.*
- 2.7 We have taken forward this definition in this Study, which therefore considers the potential for a new freestanding settlement or one which would enlarge an existing settlement by more than 50% of the population/dwellings.
- 2.8 The National Planning Policy Framework (NPPF) refers to 'new settlements' with regard to boosting the supply of new homes as part of larger scale developments stating that these should conform to the principles of Garden Cities. Paragraph 52 in the Framework outlines that:

“The supply of new homes can sometimes be best achieved through planning for larger scale development, such as new settlements or extensions to existing villages and towns that follow the principles of Garden Cities. Working with the support of their communities, local planning authorities should consider whether such opportunities provide the best way of achieving sustainable development. In doing so, they should consider whether it is appropriate to establish Green Belt around or adjoining any such new development”

- 2.9 This provides the relevant hook in current national planning policy for bringing forward new settlements. Government, recognising the need to boost housing supply, is however in the process of strengthening the policy and legislative framework for bringing forward new settlements (as considered below).
- 2.10 Planning Practice Guidance on Housing and Land Availability Assessments also deals with the need to consider potential opportunities for large scale development. It outlines that local authority plan makers “...need to assess a range of different site sizes from small-scale sites to opportunities for large-scale developments such as village and town extensions and new settlements where appropriate...”³ With regard to the types of sites and sources of data, Planning Practice Guidance suggests that “...plan makers should consider all available types of sites and sources of data that may be relevant in the assessment process...[including]... potential urban extensions and new free standing settlements.”⁴

Proposed Changes to the NPPF

- 2.11 The Government undertook a consultation on proposed changes to the NPPF in winter 2015/early 2016⁵. The consultation document outlined how the government proposed to strengthen support for new settlements:

“We propose to strengthen national planning policy to provide a more supportive approach for new settlements, within locally led plans. We consider that local planning authorities should take a proactive approach to planning for new settlements where they can meet the sustainable development objectives of national policy, including taking account of the need to provide an adequate supply of new homes. In doing so local planning authorities should work proactively with developers coming forward with proposals for new settlements in their area.”⁶

- 2.12 It indicated that new settlements could be one option to address under-delivery of homes within existing plans and outlined potential planning policy approaches to taking forward proposals for new settlements, setting out:

“One approach could be to identify additional sustainable sites if the existing approach is demonstrably not delivering the housing required. These would need to be in sustainable locations, well served by infrastructure, and with clear prospects for delivery which could be specifically set out as part of any future planning consent. A range of sites may be

³ Planning Practice Guidance, Paragraph: 3-010 Reference ID: 3-010-20140306: 06 03 2014

⁴ Planning Practice Guidance, Paragraph: 3-012 Reference ID: 3-012-20140306: 06 03 2014

⁵ CLG (Dec 2015) *Consultation on proposed changes to national planning policy.*

⁶ CLG (Dec 2015) *Consultation on proposed changes to national planning policy, Paragraph 20.*

appropriate, which could include new settlements. In such instances local planning authorities may need to consider whether a review or partial review of their plans are needed, or whether such settlements can be delivered through additional development plan documents – such as Area Action Plans. Such an approach would present an opportunity for local planning authorities, working with developers and their local communities, to undertake rapid and targeted policy reviews, including appropriate consultation, so that additional land in sustainable locations can come forward.”

Garden Villages: Empowering localism to solve the housing crisis

- 2.13 The Policy Exchange published a paper authored by Lord Matthew Taylor on Garden Villages in February 2015. This outlined the scale of the housing delivery challenge nationally, and argued that the present system of focusing growth in sequential development around towns and villages was incapable on its own of meeting the scale of need for housing. This is in a context whereby land is optioned or acquired by developers/ housebuilders with around half of the value uplift captured by the landowner/ speculator rather than invested into the community in delivering infrastructure; sequential releases of smaller plots which individually do not fund or require social infrastructure and can result in poor quality development; and ‘toxic politics’ in some instances where there is significant opposition from local people. It also noted the slow build-out of sequential development
- 2.14 Instead the report urged the reform of the New Towns Act 1981 to give local authorities (rather than Central Government) the power to create new garden villages of 1,500 – 5,000 homes. Developments of this scale would not require the scale of infrastructure of a new garden city/ towns and could thus be brought forward more quickly and be less politically difficult; but could sustain everyday services. The report proposes that land could be acquired through a modernised new towns act, which allows land to be acquired with a compensation package at a flat rate of 150% of market value, and the value uplift ringfenced to provide infrastructure for the new community.
- 2.15 Through public sector control and lower land costs, a wider range of bodies could build homes – including small builders, housing associations, overseas house builders and those who might build their own home. This would help to drive higher delivery rates than achieved through sequential development of sites by volume housebuilders.

Locally-led Garden Villages, Towns and Cities Prospectus

- 2.16 In March 2016, as part of Budget 2016, the Government published a prospectus to invite expressions of interest from local authorities who want to create new communities based on garden city principles. The prospectus, entitled *Locally-led Garden Villages, Towns and Cities*, set out how the government intends to support local areas to deliver new settlements; and indicated its intention

⁷ CLG (Dec 2015) *Consultation on proposed changes to national planning policy, Paragraph 33.*

to legislate to support delivery, through updating the New Towns Act 1981. It very much takes forward Lord Taylor's proposals from February 2015.

- 2.17 The prospectus was divided into two parts. The first part invites expressions of interest for new 'garden villages' of between 1,500 to 10,000 homes; against a context whereby the Government has indicated its intention to support up to 12 new garden village proposals.⁸ The prospectus states that "*the garden village must be a new discrete settlement, and not an extension of an existing town or village. This does not exclude proposals where there are already a few existing homes.*"⁹
- 2.18 The second part of the prospectus invites expressions of interest on a rolling basis in new garden towns and cities of more than 10,000 homes. The government expects to add to the garden towns and communities currently being supported at Ebbsfleet, Bicester, Basingstoke, Didcot, and in North Northamptonshire and North Essex.¹⁰ We understand that Aylesbury is proposed as a Garden Town in the VALP.
- 2.19 The government has not defined the concept of "garden village, town or city". The prospectus instead sets out that it does not consider that there is a single template for these; outlining that it is to be defined locally as it will be important for the new community to establish a clear and distinct sense of identity. The Prospectus did however refer to the Town and Country Planning Association's (TCPA) perspective on the Garden City concept, and provided a brief overview suggesting "*we think Garden Cities are liveable, viable, modern communities with the resident at the centre of planning. In addition, previous experience of large scale settlements suggests that there are particularly important considerations around local support, scale, connectivity, delivery arrangements, and land.*"¹¹
- 2.20 Whilst the current window for bids to Government runs to 31st July 2016, and seeks entirely free standing settlement proposals, it seems entirely possible that further funding rounds may come forward or bespoke funding secured through other channels.

Considerations in Identifying Suitable Locations

- 2.21 We move on to consider below a series of inter-connected issues which are relevant in considering and planning for new settlements.

Achieving Sustainable Development

- 2.22 A fundamental requirement in respect of planning for a new settlement is to deliver sustainable development. Sustainable development has been defined as "*development that meets the needs of*

⁸ CLG (March 2016) *Locally-Led Garden Villages, Towns and Cities, Paragraph 8.*

⁹ CLG (March 2016) *Locally-Led Garden Villages, Towns and Cities, Paragraph 14.*

¹⁰ CLG (March 2016) *Locally-Led Garden Villages, Towns and Cities, Paragraph 9.*

¹¹ CLG (March 2016) *Locally-Led Garden Villages, Towns and Cities, Paragraph 8.*

*the present without compromising the ability of future generations to meet their own needs.*¹² The NPPF outlines that the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 7 of the NPPF defines three dimensions to sustainable development:

- **an economic role** – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;
- **a social role** – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- **an environmental role** – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

2.23 Sustainable development, the NPPF outlines in Paragraph 7, involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life, including (but not limited to):

- making it easier for jobs to be created in cities, towns and villages;
- moving from a net loss of bio-diversity to achieving net gains for nature;
- replacing poor design with better design;
- improving the conditions in which people live, work, travel and take leisure; and widening the choice of high quality homes.

2.24 A core planning principle is to actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

Environmental and Landscape Considerations

2.25 A new settlement would be expected to avoid areas where national policy sets out that development should be restricted. This would include sites (within the context of this Study) protected under the Birds and Habitats Directives and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, designated heritage assets; and locations at risk of flooding. Paragraph 14 in the NPPF sets out that development should be restricted in these locations.

2.26 The NPPF sets out that in planning for new development, local planning authorities should plan for development in locations and in ways which reduces greenhouse gas emissions; and promotes energy from renewable and low carbon sources (Paras 95 and 97). New development should be

¹² United Nations (1987) *Our Common Future*

planned to avoid increased vulnerability to the range of impact arising from climate change. This includes steering development to areas with the lowest probability of flooding (Para 101).

- 2.27 Planning is also expected to contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes, minimising impacts on biodiversity and providing net gains in biodiversity where possible, and preventing soil, air, water and noise pollution or land instability (Para 109). Plans are expected to allocate land with the least environmental and amenity value for development, including through re-use of previously developed land which is not of high environmental value. Areas of Outstanding Natural Beauty and European designated wildlife sites are given the highest degree of protection; with land within or likely to have an impact on Sites of Special Scientific Interest expected to be avoided. Development of Ancient Woodland is also to be avoided.
- 2.28 In respect of the historic environment, the NPPF also supports the conservation of heritage assets with the expectation that new development will not harm these; nor the setting of them.
- 2.29 Landscape sensitivity and landscape/visual impact are also important considerations in identifying suitable locations for strategic development, with the expectation that new development will be sensitively designed to knit into the landscape and avoid highly sensitive locations. It is also noted that AVDC have a number of local landscape designations in place, which are designed to protect and enhance landscapes which are of particular value in the context of the local authority area.
- 2.30 Given the scale of strategic development being considered in this report, no potential location is likely to be free of potential development constraints or landscape/visual impact, and there is likely to be some 'harm' to the environment which will need to be considered against the potential social and economic benefits of a scheme. Constraints and environmental impact can be addressed, in part, through a carefully considered masterplan and appropriate mitigation.
- 2.31 The form of any new settlement – i.e. whether it is a free standing settlement or urban extension, also poses different challenges. The benefits of urban extensions include linking into existing infrastructure networks such as transport, jobs and social infrastructure, and they can also be perceived as having fewer environmental impacts. Equally new standalone settlements provide the opportunity and the economies of scale to truly fulfill the ambitions of sustainable development by delivering multiple benefits including zero carbon design, sustainable transport and local food sourcing. They also avoid the impact of sequential development around existing communities.
- 2.32 At this feasibility stage, the focus is thus on considering constraints and opportunities at a strategic level. Further detailed investigation can inform subsequent detailed analysis and masterplanning.

Scale and Access to Services

2.33 The preceding Labour government's flagship policy approach for new settlements was to plan and build "eco-towns." The Planning Policy Statement on Eco-Towns was cancelled in March 2015 for all areas with the exception of northwest Bicester. Therefore, eco-town planning policy no longer merits statutory consideration. However, it provides some useful context with regard to the scale of a new settlement. 'Planning Policy Statement: Eco-towns: A supplement to Planning Policy Statement 1 (June 2009)' stated that:

"Eco-towns should have the functional characteristics of a new settlement; that is to be of sufficient size and have the necessary services to establish their own character and identity and so have the critical mass necessary to be capable of self-containment whilst delivering much higher standards of sustainability.

In identifying suitable locations for eco-towns, the now cancelled PPS indicated that consideration should be given to the following:

(a) the area for development needed which should be able to make provision for a minimum of 5,000 homes. Planning on this scale allows the development to exploit a number of opportunities and benefits as set out in the Government's objectives for eco-towns"

(b) the proximity of the proposed eco-town to a higher order centre(s) where there is clear capacity for public transport links and other sustainable access to that centre

(c) the proximity of the eco-town to existing and planned employment opportunities

(d) whether the eco-town can play an important role in delivering other planning, development and regeneration objectives."

2.34 This highlights key issues – including in respect of size, critical mass and self-containment; service provision; accessibility by sustainable modes to employment and services; as well as character and identity.

2.35 A key issue is one of scale: much of the commentary on new settlements point to the size of a new settlement needing to be sufficient to support everyday services, such as shops, education and healthcare provision. Evidently larger settlements are capable of supporting a wider range of services and employment opportunities, and thus higher levels of self-containment in respect of journey to work and retail/ leisure patterns. However this needs to be considered in regard to how a new settlement might fit into the current geography of centres within an area, in terms of its proximity to other settlements, the services they offer and the ability to access these using sustainable modes of travel. Scale and accessibility to other centres thus need to be considered together.

- 2.36 In this report we have sought to steer clear of providing a detailed academic critique of these issues, but to focus on practical issues which will influence quality of place and ultimately households decisions to live in a new settlement – not least as these will be fundamental to delivering it.
- 2.37 As set out in Section 1, Aylesbury Vale is a principally rural area with Aylesbury and Buckingham being the only settlements with a population of over 10,000. Within the District, Haddenham, Winslow and Wendover function below this as Large Service Centres. A number of settlements are however reliant more on towns and service centres beyond the District's boundaries – including Milton Keynes, Luton/Dunstable, Bicester; and smaller towns such as Leighton Linlade, Tring, Thame and Brackley.
- 2.38 Evidently therefore a new settlement which is at some distance to these existing service centres would be required to accommodate a greater range of services than one based for instance on the growth of an existing large service centre or one which is geographically close to an existing town or service centre.
- 2.39 The Town and Country Planning Association (TCPA) argue that an emphasis on self-containment figures is somewhat misplaced as some of the best performing new communities have good external road and rail links and levels of mobility and networks within the 21st century are extensive.¹³
- 2.40 Nonetheless it is sensible to consider in planning for a new community of a substantive scale within Aylesbury Vale, the population should have access to key everyday services. We would define these (consistent with the Council's Settlement Audit 2012) as:
- Foodstore/ General Store;
 - Post Office;
 - GP Surgery;
 - Pub;
 - Village Hall; and
 - Primary School.
- 2.41 There have been a range of documents published which have stated population thresholds required for community infrastructure and services. These include:
- Urban Task Force Report, 1999;
 - Shaping Neighbourhoods, 2003¹⁴; and
 - HCA Urban Design Compendium.

¹³ TCPA (July 2011) *Re-imagining Garden Cities for the 21st Century: Benefits and Lessons in Bringing forward Comprehensively Planned New Communities*: 32

¹⁴ Barton, H., Grant, M. and Guise, R. (2003) *Shaping Neighbourhoods: a guide for health, sustainability and vitality*, Spon Press, London

2.42 Table 2 below summarises typical population thresholds for key services from these reports as set out in *Alternative Spatial Growth Options Study – South West Bristol*, prepared by Broadway Malyan.

Table 2: Population Thresholds for Services and Community Infrastructure

	Shaping Neighbourhoods	Urban Design Compendium	Urban Task Force	Average
Nursery / Primary School	2000	2500	2000	2000
Primary / Middle School (2FE)	4000	4000	4000	4000
Secondary School	8000 – 16000		8000 - 16000	8000 - 16000
Health Centre	10000		10000	10000
Doctor's Surgery		2500 – 3000	3000	3000
Pharmacy			5000	5000
Local Shop	1500	2000 – 5000	2000	2000
Pub		5000 – 7000	6000	6000
Post Office	5000	5000 – 10000	5000	5000
Community Centre	4000		4000	4000
Local Centre	6000	5000 – 10000	6000	6000
District Centre	24000		24000	24000
Leisure Centre	24000		24000	24000

2.43 The thresholds for individual services must however be treated with a degree of caution for three reasons. Firstly, if an extension to an existing settlement is recommended, the thresholds do not consider the existing infrastructure capacities and deficits. Secondly, as explained earlier, levels of mobility are greater than those historically, which means that parents often enrol children into schools beyond catchment areas, and commuting patterns have evolved whereby people use services including shopping, leisure and health facilities near to their workplace rather than their home. Thirdly, catchment areas and accessibility to services will vary across Aylesbury Vale District.

2.44 On this basis it is reasonable to use this set of thresholds as a starting point in considering potential settlement options, but with a recognition that detailed social infrastructure planning needs to be undertaken in due course if a new settlement option is taken forward by the Council. This would need to include more detailed interrogation of existing local service provision, travel to service patterns and local standards.

2.45 A 4,000 home threshold for considering the potential of a new settlement is considered appropriate as this would support provision of key services such as both primary and secondary school provision together with everyday services.

Promoting Sustainable Transport

- 2.46 A core planning principle is to actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are, or can be made, sustainable.
- 2.47 It is important to assess potential new settlement locations with specific regard to whether they can promote sustainable transport. The National Planning Policy Framework (NPPF, Para 29) explains that transport policies have a significant influence towards achieving sustainable development:
- “Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas”*
- 2.48 The NPPF is clear that development should enable the use of sustainable modes, to reduce greenhouse gas emissions, energy consumption and reduce congestion. Local plans are expected to deliver a pattern of development which facilitates the use of sustainable modes of travel.
- 2.49 In this context the potential for travel by sustainable modes is a consideration of particular significance in identifying locations for a new settlement. GL Hearn considers that:
- There are particular benefits associated with locations which offer the potential for access by rail to key employment centres, as these likely provide the potential to support a greater modal share by sustainable modes;
 - There is a trade-off between proximity of a new settlement location to existing larger settlements (which provides the potential for shorter-distance trips) set against a degree of competition in commercial terms for investment, which could influence build-out rates for a new settlement;
 - A location which benefits from good quality existing public transport facilities (or where investment is planned which will deliver this) is likely to be able to support stronger housing growth rates, and be more deliverable, than a location which does not.
- 2.50 The National Planning Policy Framework (NPPF, Para 37) suggests that developments should also support a balance of land uses, setting out that *“planning policies should aim for a balance of land uses within their area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities.”*

Knitting in to the Existing Settlement Network

- 2.51 The proposed location for any potential new settlement needs to appropriately correspond and connect with the existing network of settlements.
- 2.52 There are two different pathways to achieving this. Firstly there may be opportunities to situate a new settlement close to an existing settlement(s) which would allow the new settlement to utilise infrastructure and services at the existing settlement. This could support deliverability through using (and where appropriate upgrading and supplementing) existing services, limiting high upfront costs associated with delivering new infrastructure which have a particular impact on borrowing costs and viability.
- 2.53 The alternative is to locate a new settlement in an isolated location which is a reasonable distance away from existing settlements in order to establish greater self-containment. This would require the provision of greater upfront investment in infrastructure and services, which could possibly impede delivery, depending in particular on the delivery model and level of public funding support.
- 2.54 It is accepted that the process of improving existing infrastructure and services is generally less complex and resource intensive than establishing infrastructure on at an undeveloped location.
- 2.55 It is considered appropriate that a new settlement knits into the pattern of existing settlements, being of an appropriate size and scale given the immediate context and relationship to surrounding settlements. This is an important consideration in respect of both settlement size and function; as well as in delivery terms (as considered further below).

Delivery Considerations

- 2.56 The importance of delivery is enshrined in the National Planning Policy Framework (NPPF). A core planning principle stated in the NPPF is to: “*proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs*” (CLG, 2012: Our Emphasis). To be sound and “effective” the Vale of Aylesbury Local Plan will need to be deliverable.
- 2.57 Deliverability is a complex issue in regard to a new settlement. Development viability will be complex and influenced by the scale of development and relationship of this to the infrastructure needed to support the development, as well as phasing and cashflow issues. The delivery of major new development locations in almost all instances are supported, to a greater or lesser degree, by public investment and funding.

- 2.58 At this ‘feasibility’ level of planning, it is important to identify whether there are potential “showstopper” issues in respect of infrastructure provision which could fundamentally influence the cost of development, the feasibility of bringing development forwards, or the timing/ phasing of development at different potential locations. This report considers these issues.
- 2.59 In regard to deliverability, GL Hearn also consider it important to take account of the spatial relationship between potential major growth locations – recognising that two major growth locations close to one another could compete for investment, such as within a common local housing market. This could influence the pace of development which could be achieved, and ultimately the feasibility/ viability of the proposal. On a similar basis growth locations which relate well (in spatial terms) to those areas in which there is an under-supply of housing, or are well connected to other demand drivers – such as locations which are expected to see significant employment growth – could be expected to see stronger delivery. On this basis it is important to consider the relationship of a proposed new settlement location with existing growth locations and settlements with regard to housing market dynamics.
- 2.60 The table below summarises growth proposals in areas surrounding Aylesbury Vale District, focusing particularly on those towns close to the District’s boundary:

Table 3: Growth Proposals in Surrounding Areas

Area	Proposals
Banbury	Cherwell’s Local Plan 2015 sets a housing requirement for 7,319 homes in Banbury between 2011-31. This would represent a notional delivery rate of 366 pa.
Bicester	Cherwell’s Local Plan 2015 sets a housing requirement for 10,129 homes in Bicester between 2011-31. Bicester has been identified as a Garden Town by Government. This would represent a notional delivery rate of 506 pa.
Brackley	The West Northamptonshire Joint Core Strategy (adopted in 2014) envisages development of 2,160 dwellings in Brackley between 2011-29. This would equate to a notional average of 120 dpa.
Dunstable/ Houghton Regis	Central Bedfordshire is at an early stage in the development of a new local plan. In 2014 it granted outline planning consent for an urban extension of 5,150 homes together with commercial development and infrastructure North of Houghton Regis.
Hemel Hempstead	Dacorum Core Strategy 2013 plans for provision of 8,800 homes at Hemel Hempstead between 2006-31. In addition St Albans City & District’s emerging Local

	Plan proposes an urban extension to the east of St Albans, of 1500 dwellings to 2031.
Luton	Luton's Submitted Local Plan proposes delivery of 6,700 homes between 2011-31 in Luton (resulting in an unmet need for 11,100 homes compared to the OAN). This would equate to a notional delivery rate of 335 dpa.
Milton Keynes	Historically one of the fastest growing towns in the Country. Existing Core Strategy includes housing target of 26,240 dwellings (1,640 pa) for the Urban Area. New Plan:MK under development, which based on Jan 2016 Consultation is likely to continue to need to deliver at least 1,750 dwellings per annum. Consideration will need to be given to all directions for growth, including urban extensions into Aylesbury Vale.
Princes Risbrough	Wycombe's Consultation Draft Local Plan proposes delivery of 2,600 homes at Princes Risbrough over the 2013-33 period (equivalent to 130 dpa), with 10,000 homes expected across Wycombe District.
Thame	South Oxfordshire's Core Strategy 2012 set out that Thame should accommodate 775 homes over the 2006-27 period. This is taken forward in the Thame Neighbourhood Plan. This would represent a notional delivery rate of 37 pa.

Drawing the Above Together

- 2.61 It is necessary to draw the above together to provide a framework for assessing potential locations for a new settlement. The table below provides an overview of the options assessment framework.

Table 4: Overview of Options Assessment Framework

Key Topic	New Settlement Requirements
Environment and Landscape	Location which is substantially free from nationally significant environmental and policy designations; which avoids areas of higher landscape sensitivity; and is a good fit with existing land use and settlement pattern.
Scale and Function	Location which is capable of providing at least 4,500 homes. This has been defined with regard to the potential scale of development which could be delivered at a single location within the plan period, an understanding of the potential scale of development which

	<p>might need to be accommodated to deliver 33,300 homes over the plan period, and a scale of development which (for a standalone new settlement option) could support a range of everyday services including shops, healthcare, and primary and secondary education provision.</p> <p>Scale and function of the settlement will take account of the proximity and relationship to other existing settlements.</p>
<p>Transport Connectivity</p>	<p>Location which is served by (or capable of being served by) high quality and frequency public transport services which link it to higher order centres for employment and services.</p>
<p>Delivery Considerations</p>	<p>Location which is capable, based on the current information, of making a substantial contribution to housing delivery within the plan period to 2033 taking account of issues associated with infrastructure necessary and how this will be delivered; as well as market based influences on potential housing demand.</p>

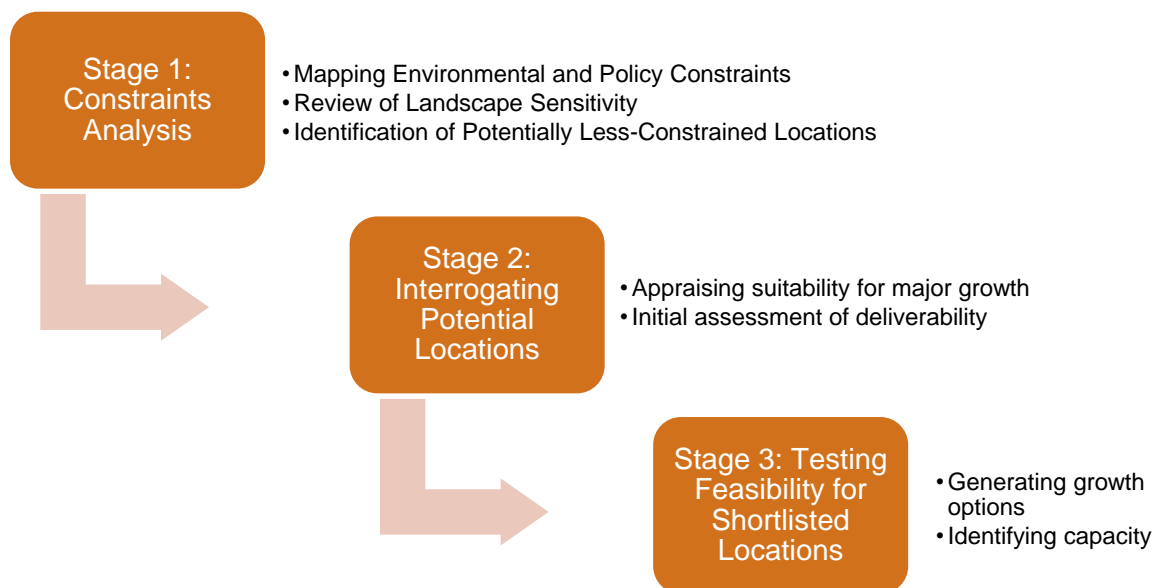
3 STUDY APPROACH AND METHODOLOGY

3.1 In this section we describe the methodology which we have used to identify and shortlist potential locations for a new settlement. The process used has been iterative, involving progressing layers of detailed interrogation to consider the potential of different locations.

3.2 Overall the approach has sought to consider **the relative sustainability, capacity and deliverability** of different potential locations. The context of the feasibility study as a whole which is focused on identifying and assessing the feasibility of a new settlement option, considering "broad locations" rather than undertaking more detailed work to assess potential form and structure of development at a local level.

3.3 The diagram below seeks to provide an overview of the process used.

Figure 3: Overview of Iterative Options Assessment Process



Stage 1: Constraints Analysis

3.4 The Stage 1 analysis was led particularly through GIS mapping of constraints and opportunities. An initial "search area" for a potential new settlement location was defined to cover all land within Aylesbury Vale District and potential locations which might extend across the District's boundary. This ensured that no preconceptions about particular locations influenced the selection of potential new settlement locations for assessment.

- 3.5 Relevant planning legislation, policies and practice guidance were reviewed to identify environmental, landscape, heritage and policy designation which might constrain development potential. Relevant designations are described in the box overleaf.
- 3.6 A three tiered categorisation of constraints was developed to differentiate potential constraints in terms of their influence on the future suitability of land to accommodate new development. This is shown in Table 4 below.

Table 5: Categorisation of Environment, Landscape, Heritage and Policy Constraints

Category	Constraints
Category 1	Area of Outstanding Natural Beauty; Flood Zone 2/3, Special Areas of Conservation, Special Protection Areas, Sites of Special Scientific Interest, Safety Safeguarding Zones, Scheduled Ancient Monuments, Registered Historic Parks, Green Belt.
Category 2	Agricultural Land Quality/Grade, Ancient Woodland, Ground Instability, Local Nature Reserve, Sites of Importance for Nature Conservation, Waste Disposal Sites, Areas of High Landscape Quality/ Character
Category 3	Air Quality, Archaeology Zones, Contaminated Land, Conservation Areas, Listed Buildings, Mineral Resources/ Safeguarding, Pipelines, Power Lines, Settlement Gaps

- 3.7 The categorisation of constraints reflects international and national legislation and policy, together with the specific circumstances and constraints prevalent to Aylesbury Vale District.
- 3.8 Designations identified in Category 1 generally comprise designations where Paragraphs 14, 118 and 132 in the NPPF indicate that development should be restricted. This comprised land covered by nationally-significant environmental, biodiversity, heritage, landscape and/or policy designations. Safety safeguarding zones was also included. It includes Sites of Special Scientific Interest, European-protected wildlife sites, designated heritage assets, Areas of Outstanding Natural Beauty, Green Belt, and areas liable to flooding.
- 3.9 The Category 1 constraints are considered to represent a significant barrier to delivery of new development, where an impact is unlikely to be possible to mitigate. They represent the highest potential constraints to the establishment of a new settlement.

Environmental, Landscape, Heritage and Policy Designations

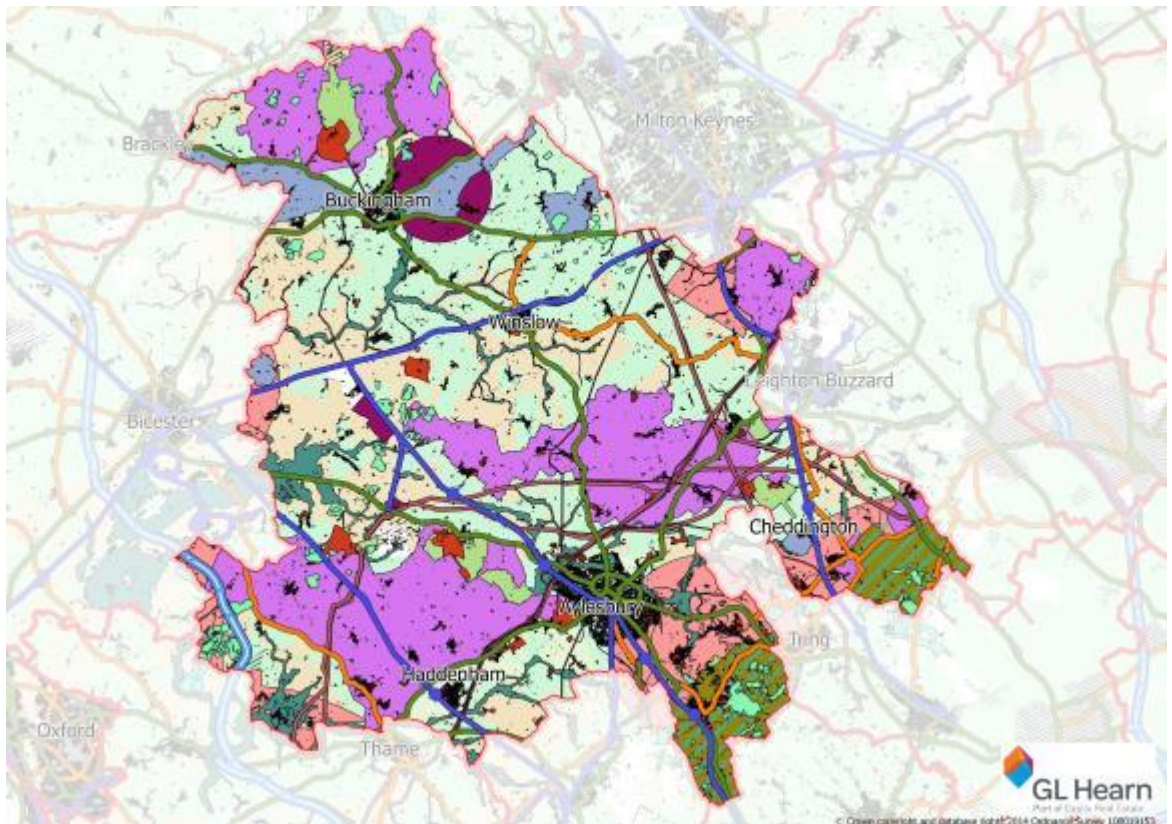
- Aged or veteran tree: A tree which, because of its great age, size or condition is of exceptional value for wildlife, in the landscape, or culturally.
- Air Quality Management Areas: Areas designated by local authorities because they are not likely to achieve national air quality objectives by the relevant deadlines.
- Ancient woodland: An area that has been wooded continuously since at least 1600 AD.
- Best and most versatile agricultural land: Land in grades 1, 2 and 3a of the Agricultural Land Classification.
- Birds and Habitats Directives: European Directives to conserve natural habitats and wild fauna and flora.
- Community Forest: An area identified through the England Community Forest Programme to revitalise countryside and green space in and around major conurbations.
- Designated heritage asset: A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.
- European site: This includes candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation and Special Protection Areas, and is defined in regulation 8 of the Conservation of Habitats and Species Regulations 2010
- Heritage asset: A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).
- International, national and locally designated sites of importance for biodiversity: All international sites (Special Areas of Conservation, Special Protection Areas, and Ramsar sites), national sites (Sites of Special Scientific Interest) and locally designated sites including Local Wildlife Sites.
- Major Hazards: Major hazard installations and pipelines, licensed explosive sites and nuclear installations, around which Health and Safety Executive (and Office for Nuclear Regulation) consultation distances to mitigate the consequences to public safety of major accidents may apply.
- Mineral Safeguarding Area: An area designated by Minerals Planning Authorities which covers known deposits of minerals which are desired to be kept safeguarded from unnecessary sterilisation by non-mineral development.
- Nature Improvement Areas: Inter-connected networks of wildlife habitats intended to re-establish thriving wildlife populations and help species respond to the challenges of climate change.
- Open space: All open space of public value, including not just land, but also areas of water (such as rivers, canals, lakes and reservoirs) which offer important opportunities for sport and recreation and can act as a visual amenity.
- Priority habitats and species: Species and Habitats of Principle Importance included in the England Biodiversity List published by the Secretary of State under section 41 of the Natural Environment and Rural Communities Act 2006.
- Ramsar sites: Wetlands of international importance, designated under the 1971 Ramsar Convention.
- Safeguarding zone: An area defined in Circular 01/03: Safeguarding aerodromes, technical sites and military explosives storage areas, to safeguard such sites.
- Special Areas of Conservation: Areas given special protection under the European Union's Habitats Directive, which is transposed into UK law by the Habitats and Conservation of Species Regulations 2010.
- Special Protection Areas: Areas which have been identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds found within European Union countries. They are European designated sites, classified under the Birds Directive.
- Site of Special Scientific Interest: Sites designated by Natural England under the Wildlife and Countryside Act 1981.
- Wildlife corridor: Areas of habitat connecting wildlife populations.

- 3.10 Category 2 constraints are those considered to represent a significant barrier to the delivery of development. Whilst it may be possible to mitigate impacts on these designations/ areas in some circumstances, it would represent good planning practice to seek to avoid areas influenced by these designations where feasible.
- 3.11 'Best and most versatile agricultural land' (Grades 1, 2 and 3a in the Agricultural Land Classification) is included as a Category 2 constraint; taking account of the protection afforded to it by Paragraph 112 in the Framework. Other Category 2 constraints include wildlife and geodiversity designations and landscape character/ sensitivity; as supported by Paragraphs 109, 118 and 170 in the NPPF.
- 3.12 Category 3 constraints were considered to represent less significant barriers at the initial feasibility stage, and were issues which it is considered could generally be addressed through the sensitive design and masterplanning stage in bringing forward new development.
- 3.13 The process of selecting potential new settlement locations assessed whether locations can satisfy the prevailing policy legislature with regard to the restriction of development. It was recognised in assessing sites that some of the above constraints can be mitigated and therefore may not wholly prohibit development.

Iterative Constraint Mapping to Identify Potential Locations

- 3.14 The Stage 1 analysis involved GIS mapping to plot and overlay constraints and identify "broad areas of search" which were potentially of a sufficient scale to accommodate a new settlement. Broad locations identified included those where a new free-standing settlement could be accommodated; and major growth might come forward close to or contiguous with existing settlements (as defined in the Draft Settlement Hierarchy, AVDC Oct 2015).
- 3.15 Category 1 constraints are of national or international significance. Areas with significant coverage of Category 1 constraints were considered unlikely to be able to accommodate strategic development of the scale envisaged, and thus excluded at an early stage from further consideration.
- 3.16 The next consideration was given to remaining areas of the District to identify potential locations which were generally not subject to Category 1 and 2 environmental, biodiversity, heritage, landscape and/or nationally-significant policy designations; and to overlay existing and proposed transport infrastructure.
- 3.17 The results of this analysis are shown below:

Figure 4: Key Development Constraints affecting areas within Aylesbury Vale District



3.18 Alongside the analysis of constraints, consideration was given to opportunities. A map layer was created to display current transport infrastructure – including public transport and highways infrastructure. Consideration was also given to planned / potential transport infrastructure investment, including:

- East – West Rail
- Chiltern Evergreen Project – connecting the Chiltern Mainline to Oxford
- High Speed 2
- Oxford – Cambridge Expressway

Stage 2: Interrogating Potential Locations

3.19 The Stage 1 analysis identified 11 potential locations which warranted further consideration. A process of further interrogating the potential of these locations was then taken forward, which considered:

- Settlement Location
 - Current role and function of settlement
 - Relationship to existing main towns
- Environmental Constraints

- Overview of landscape character
- Accessibility
 - By road
 - By public transport
- Existing service provision
 - Shops
 - Community services
- Land availability, as identified in SHLAA

3.20 This analysis involved further interrogation of development constraints using the GIS analysis. In relation to landscape character, LDA Design considered the ability of the landscape to accommodate new development. A desk based study was undertaken, utilising the following sources of information:

- Aerial photography and OS mapping
- Aylesbury Vale Landscape Character Assessment (LCA), 2008, Jacobs Babtie
- Landscape Advice to Aylesbury Vale DC, March 2015, LUC
- Defining the special qualities of local landscape designations in Aylesbury Vale District, October 2015, LUC

3.21 13 landscape types and 79 landscape areas have been established as part of the 2008 LCA review. Using the above sources of information, it was possible to determine the overall condition and sensitivity of each landscape area; make judgements about its ability to accommodate change; and identify broad opportunities to enhance character and/or mitigate the impact of any new development. This information was captured in a short report, which can be found in Appendix A.

3.22 A rapid field survey was undertaken of the 11 potential locations to confirm the judgements made. On the basis of the desk and field study, a plan was prepared for each potential location, indicating the key opportunities/constraints and the broad development area. These plans can be found in Appendix B.

3.23 In terms of utilities at this stage of the process, consideration was given as to whether or not there were any overhead cables running through the sites in the form of electricity pylons. Detailed analysis of utilities infrastructure requirements will be needed in progressing masterplanning for a new settlement location including engagement with utilities providers.

3.24 At this early stage of the process, in order to compare the relative transport/ accessibility merits, Capita considered the proximity and frequency of public transport, considering in particular the distance to local railway stations, the frequency of services and the destinations served by the train operators at those stations. In addition to public transport accessibility we also considered the proximity of the potential sites to the trunk road network

- 3.25 The environmental data, together with both the public transport and strategic road network data were combined in order to provide an initial basis by which to rank the potential development sites.
- 3.26 Taking account of environment, landscape and heritage issues, as well as a review of information from the 2015 Strategic Land Availability Assessment, consideration was given to the potential of different locations to accommodate strategic growth; together with potential directions for growth and/or the location of strategic development.
- 3.27 Potential “broad areas of search” were identified which could accommodate either:
- A free-standing new settlement;
 - Direction for potential growth to existing settlements.
- 3.28 A comparative assessment of sustainability and deliverability of different growth location was undertaken based on the framework set out in Table 3, with conclusions drawn for each location on:
- Indicative capacity
 - Relative sustainability
 - Relative deliverability
- 3.29 This assessment informed the selection of shortlisted locations for further interrogation.

Stage 3: Testing Feasibility for Shortlisted Locations

- 3.30 The two growth locations were then taken forward, with further analysis undertaken considering the feasibility of accommodating strategic development.
- 3.31 LDA Design undertook further desk and field study to explore the potential for the two short listed growth locations to accommodate development within the landscape, and refine the broad development areas previously identified in Stage 2.
- 3.32 An initial analysis of highways/ transport impacts was also undertaken. In order to compare the two sites trip generation analysis was also undertaken using the TRICS database based on 6,000 new dwellings at each potential location. This data was then incorporated into the VISSIM model developed by Buckinghamshire County Council / JMP. JMP then provided data from the VISSIM model for the future year of 2033. This data included base year and 2033 base traffic flows and turning flow information as well as traffic distribution data and journey time information for 6,000 dwellings at each location and also with the two combined.
- 3.33 The VISSIM data was interrogated to determine the key junctions directly affected by the two development scenarios and these were modelled and assessed using the industry standard software ‘Junctions 8.’ This was then discussed with Buckinghamshire County Council. Further detailed work will be required beyond this initial Feasibility Study to consider transport infrastructure

improvements necessary to support the delivery of a new settlement both in the immediate area and along strategic routes.

- 3.34 A high level assessment of the relative deliverability was then undertaken considering the potential costs associated with delivering strategic infrastructure, specifically transport infrastructure, and the relationship between this and the potential scale of development.

4 REVIEW OF LONG LIST OF GROWTH LOCATIONS

4.1 There are substantial areas of land within Aylesbury Vale District which are relatively free from Category 1 designations and could thus in theory accommodate substantial new development. In this section we summarise the analysis relating to the “long list” of potential locations considered.

4.2 An analysis of constraints and opportunities looking across the District resulted in the identification of potential ‘candidate’ locations which might be able to accommodate a new settlement. These locations are identified in the plan below, which shows key environmental and policy constraints.

Figure 5: Constraints Map of AVDC Showing Potential New Settlement Locations

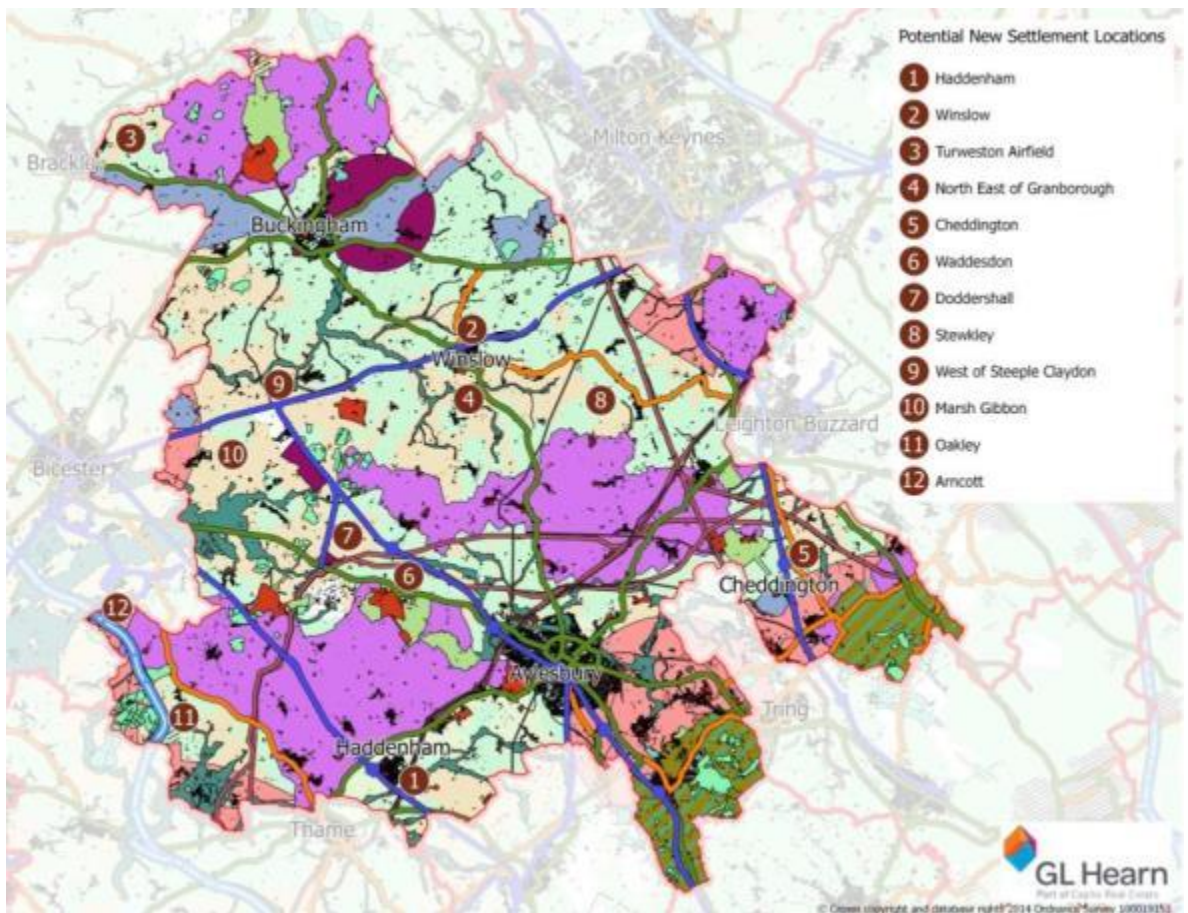
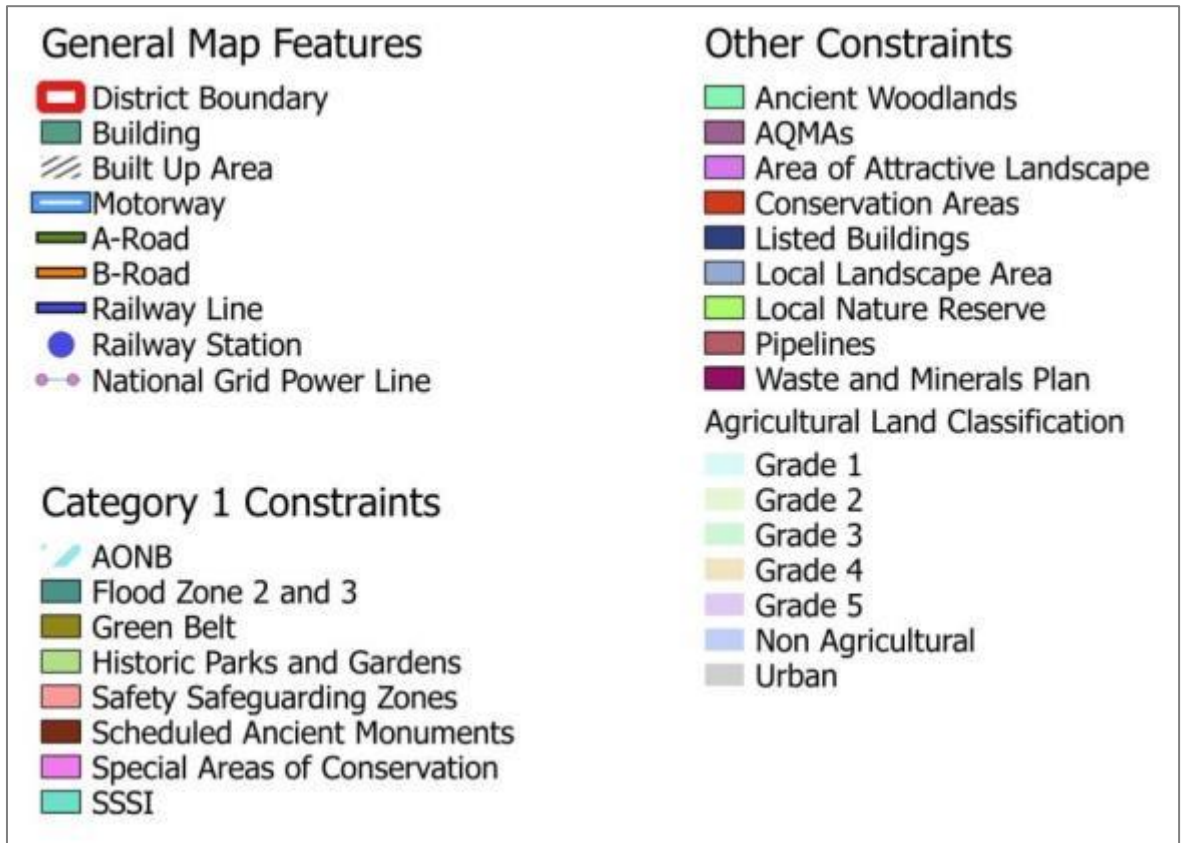


Figure 6: Key to Constraints Maps



4.3 Analysis plans considering opportunities and constraints, and potential development locations, for each location are set out in Appendix B.

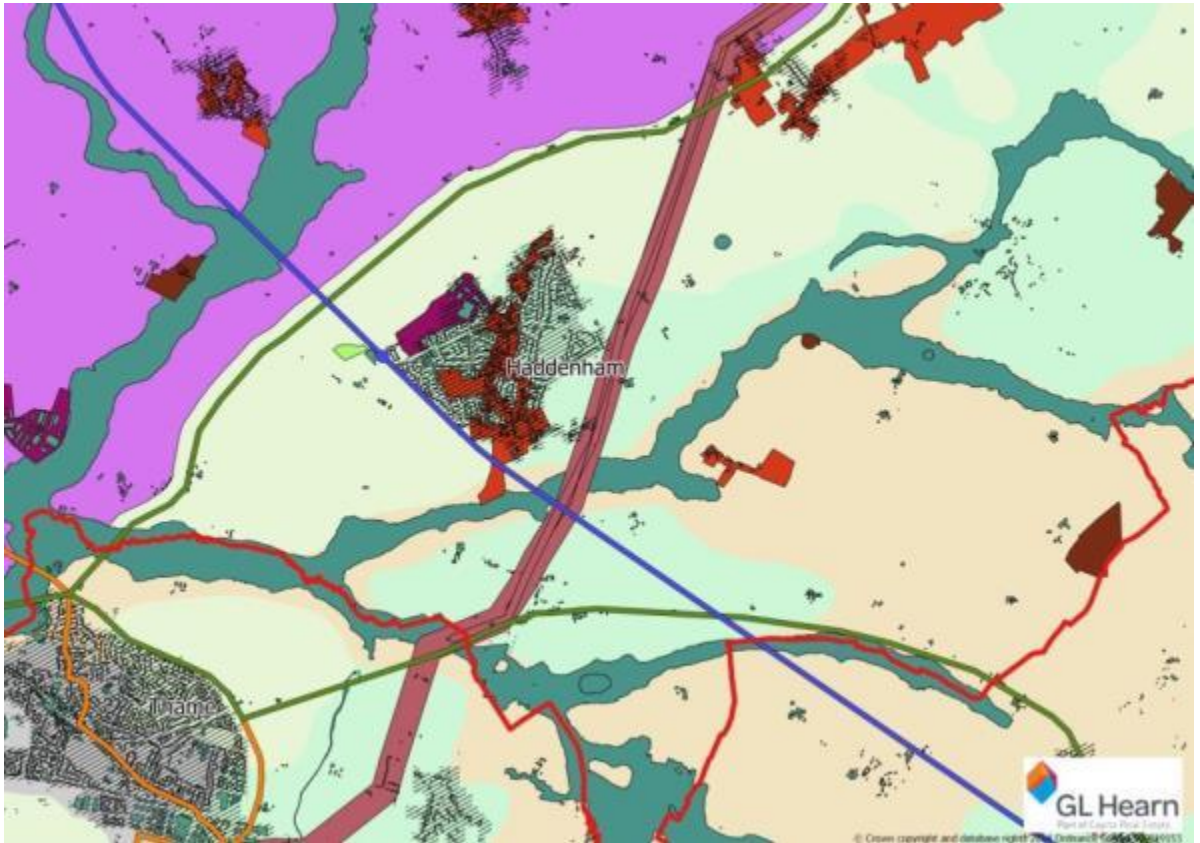
Haddenham

4.4 An initial assessment identified that Haddenham represented a strong candidate for major growth, taking account of the physical potential to accommodate growth, the presence of existing social and community infrastructure which could help to facilitate initial phases of development, and in particular its accessibility to other major centres.

4.5 Growth could be accommodated as an extension to the existing settlement; or as a standalone (but linked) settlement on land near Aston Sandford, to the south-east of Haddenham.

4.6 Key environmental and policy constraints are set out in Figure 7 below.

Figure 7: Environment and Policy Constraints – Haddenham



HADDENHAM	
Settlement Size and Location:	Haddenham is currently designated as a strategic settlement and large service centre (4,400 population), situated approximately 6 miles south-west of Aylesbury, and 3 miles north east of Thame (South Oxfordshire District). 19 miles from Oxford.
Potential Growth Directions:	<ul style="list-style-type: none"> ➤ West ➤ Limited growth to North West ➤ Limited growth to East ➤ Freestanding development to south-east
Environment & Landscape Assessment:	<p>No major environmental or policy constraints which would preclude strategic development. A strip of land between Haddenham and Aston Sandford lies within the flood plain (Flood Zone 2). Potential for development immediately south of the settlement limited due to Conservation Area/concentration of Listed Buildings and potential impact on the setting of heritage assets.</p> <p>Relatively high potential for new development and few landscape constraints in the surrounding area. Any extension to Haddenham would need to avoid the ridgeline to</p>

	the north and encroaching on the Area of Attractive Landscape. Field boundaries and tree belts are a characteristic feature and could be used to integrate development and reinforce landscape structure. There is also potential for a 'standalone' settlement to the east of the settlement, but consideration would need to be given to the setting of the Chilterns AONB (approximately 7km to the south of Haddenham). Surrounding villages, such as Aston Sandford, Ilmer, Owlswick have Conservation Areas, and there is also a Scheduled Ancient Monument (Medieval Settlement East of Waldridge Manor) near Owlswick.
Accessibility:	Served by the A418 truck road which links to M40 Junction 8A (8.5 miles distant), the A40 and Aylesbury. Strong rail access from Haddenham and Thame Parkway Station which is 0.8 miles from the village centre; and provides services to London, Banbury and Oxford Parkway. Service improvements are to provide a direct rail link to Oxford. Bus service 280 provides a regular service to Aylesbury, Thame and Oxford. One of the most accessible locations in the District by public transport, with regular services to London, Oxford, Bicester, Banbury and Birmingham. 35 min journey time to London Marylebone.
Existing Service Provision:	Range of key services including shops and pubs, a post office, GP surgery, two village/ community halls, 2 infant and 1 junior school. Employment provided within 14.4 ha Haddenham Business Park, adjoining the settlement.
Indicative Potential Housing Capacity:	Growth Haddenham/ NE Expansion: 1,250 dwellings Growth Haddenham/ Western Expansion: 6000+ dwellings Grow Haddenham and new Garden Village: 7000+ dwellings
Initial Deliverability Assessment	No significant barriers to delivery of strategic growth, subject to further investigations. Potentially deliverable.

4.7 The commercial attractiveness of this as a major location for growth is potentially bolstered by its accessibility to major employment centres such as Oxford and London. It relates more strongly than some other potential options to areas of unmet housing need, which are principally to the south of Aylesbury Vale District.

4.8 Consideration of the impacts of strategic development on the highway network, including the A418, will influence the feasibility of major development at this location.

Winslow

4.9 An initial assessment identified that Winslow represented a strong candidate for major growth, taking account of the physical potential to accommodate growth, the presence of existing social and community infrastructure which could help to facilitate initial phases of development, and the

enhanced accessibility provided through reopening of the rail line providing sustainable access to Aylesbury, Milton Keynes and Oxford.

4.10 Key environmental and policy constraints are set out in Figure 8 below.

Figure 8: Environment and Policy Constraints – Winslow



WINSLOW	
Settlement Size and Location:	Winslow is currently designated as a strategic settlement and large service centre (4,400 population), situated approximately 11 miles north of Aylesbury, 11 miles south-west of Milton Keynes and 6.5 miles south-east of Buckingham.
Potential Growth Directions:	<ul style="list-style-type: none"> ➤ North ➤ Limited potential to the north-west ➤ Freestanding development on the former airfield site
Environment & Landscape Assessment:	Landscape to the north of the town in relatively poor condition with a weak sense of place, due to a large part of the area being a disused airfield where the ground has been levelled and field pattern removed. This offers the greatest potential for major growth, and there is an opportunity to improve landscape structure through development and the creation of new green infrastructure. On the eastern side of the

	<p>town there is a clear urban edge and development would be harmful to the distinctiveness of the landscape and setting/ character of the town.</p> <p>Potential for growth to the south of the settlement limited by Conservations Area designation and impact of development on this and the setting of Listed Buildings.</p> <p>Modest potential for growth to the north-west on land allocated for development within the Winslow Neighbourhood Plan.</p> <p>Ribbons of land within the Flood Zone surround Winslow on three sides including a strip between the town and the potential new settlement site.</p>
Accessibility:	<p>Served by the A413 which links Winslow to Buckingham to the north and Aylesbury to the south. X60 and 60 bus services provide regular services linking the settlement to Aylesbury and Milton Keynes. Additional services provided by Route 50.</p> <p>New rail station to open in 2020 providing regular services to Oxford, Milton Keynes, Bedford, Aylesbury and London Marylebone. This will significantly improve public transport accessibility and connect the settlement with a range of major economic centres within the region.</p>
Existing Service Provision:	<p>Range of key services including shops and pubs, a post office, GP surgery, village/ community hall, a primary school, special school and secondary free school. Limited existing employment land provision but potential to enhance this through growth.</p>
Indicative Potential Housing Capacity:	<p>Growth around existing settlement: 500+ dwellings</p> <p>Northern Expansion: 6,500 + dwellings</p> <p>Northern Expansion and Stand-alone Settlement: 6,000+ dwellings</p>
Initial Deliverability Assessment	<p>No significant barriers to delivery of strategic growth, subject to further investigations. Potentially deliverable.</p>

4.11 The town is at some distance from other larger employment/ service centres by road, and has limited existing employment provision. The new rail station and delivery of allocations within the Winslow Neighbourhood Plan will however change this dynamic. It is at a greater distance than some other options from areas of unmet housing need, which are principally to the south of Aylesbury Vale District.

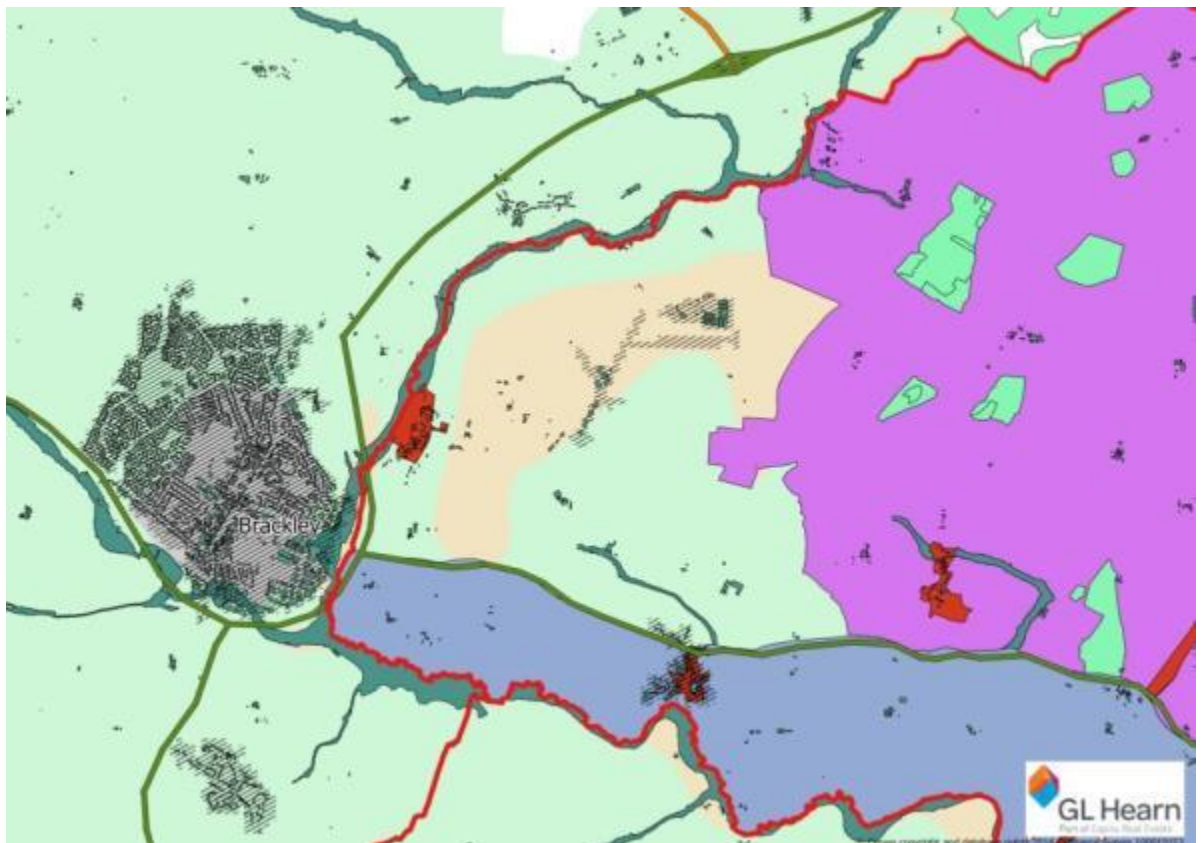
Turweston Airfield

4.12 This is previously developed airfield site, located in the north-east of the District close to the district boundary and Brackley. Development at this location would represent a standalone new settlement.

4.13 Whilst the site performs well from a physical and landscape perspective, it relates weakly to existing public transport networks and it is likely that development at this location would be heavily car

dependent. In comparative terms, significant upgrading of both road and public transport infrastructure would be necessary to serve growth at this location. Major growth at this location is likely to be less sustainable and deliverable than at other potential growth locations.

Figure 9: Environment and Policy Constraints – Turweston Airfield



TURWESTON AIRFIELD	
Settlement Size and Location:	Turweston Airfield lies in a rural location, c. two miles to the west of Brackley (South Northamptonshire District).
Potential Growth Directions:	<ul style="list-style-type: none"> ➤ Potential for redevelopment of the Airfield (89 ha). ➤ Potential for expansion to the south-east and south in the longer-term.
Environment & Landscape Assessment:	<p>No major environmental or policy designations in this area which constrain development potential. Primarily Grades 2 and 3 agricultural land.</p> <p>Whilst landscape is recorded as being of 'moderate' condition and 'high' sensitivity, with distinctive characteristics, the character around the airfield is weaker where the field pattern has been removed and the landscape modified. The airfield itself presents a poor quality environment and presents a strong opportunity for new growth. Eastern extent of development constrained by Stowe Area of Attractive Landscape.</p>

Accessibility:	Location is c. 2 miles to the south of the A43 Truck Road, providing connections to the M1 and M40. Reasonable proximity to employment in Brackley (2 miles), Silverstone (6 miles) and Buckingham (7 miles), but larger employment centres are further afield: Banbury (16 miles), Bicester (26 miles), Milton Keynes (36 miles). 14 miles from rail station (Bicester North). No rail link. With a focus on road-based transport and distance from other main settlements, significantly less sustainable as a location than a number of alternatives considered.
Existing Service Provision:	Limited existing service provision, with airfield separated from the existing village which includes a pub and village hall. Would rely on Brackley for key day-to-day services, and larger centres for higher order services. Is divided from Brackley by A43.
Indicative Potential Housing Capacity:	3,150 – 5,250 dwellings
Initial Deliverability Assessment	Whist a relatively unconstrained location, significant delivery risks given significant costs of delivering new infrastructure including improving road access, public transport and services.

4.14 Whist there is landscape potential for strategic development, growth at this location would relate weakly to other settlement within Aylesbury Vale District, and would relate more strongly to Brackley. With limited existing infrastructure, the infrastructure burden in earlier phases of development would be comparatively greater relative to other potential growth locations. Therefore the relative deliverability of strategic growth at this location is low.

Granborough

4.15 Granborough lies to the south of Winslow. The Study has assessed the potential for a standalone settlement around Granborough, identifying the area with greatest potential to the south-west of the settlement.

4.16 Overall this location relates relatively poorly to existing public transport network; and is located at some distance from existing main employment centres. There is limited existing service provision. The location is less sustainable and less deliverable than other potential growth locations.

Figure 10: Environment and Policy Constraints – Granborough



NE OF GRANBOROUGH	
Settlement Size and Location:	Rural location, close to (and to the south of) Winslow (1.9 miles away). Lies 8 miles south of Buckingham, and 9 miles north of Aylesbury. Granborough is a small village of 545 population.
Potential Growth Directions:	> Standalone settlement to the south-west of Granborough
Environment & Landscape Assessment:	<p>Area generally free from environmental and policy designations, albeit that small areas of land around watercourses falls within Flood Zones 2 and 3. Power lines cross the area to the north of Granborough and inhibit the potential for growth north; as well as the potential for coalescence with Winslow.</p> <p>Generally moderate to good landscape character, however there are areas where the sense of place is weak; and pylons/ sub-stations are recorded as detracting features. The local topography and areas of woodland could help to assimilate development into the landscape.</p> <p>Any major development would potentially need to maintain a separation between Granborough and Winslow and prevent coalescence.</p>

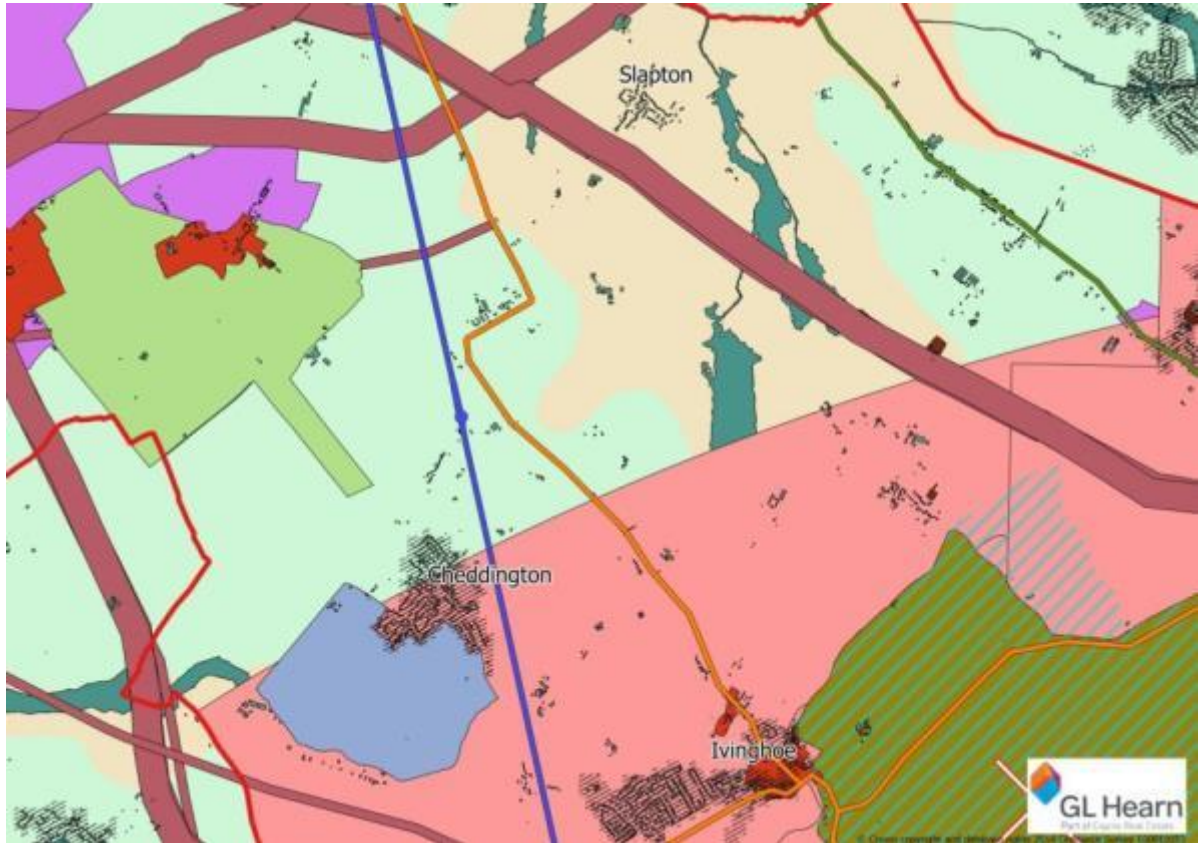
Accessibility:	Close to A413, providing road access to Buckingham (8 miles to north) and Aylesbury (9 miles to south). X60 and 60 bus service provides regular services to Aylesbury and Milton Keynes. Located c. 3 miles from new rail station at Winslow, but on the opposite side of the settlement
Existing Service Provision:	Limited existing service provision, with the settlement including a pub and village/community hall. Additional services available in Winslow.
Indicative Potential Housing Capacity:	7,350 – 9,450 dwellings
Initial Deliverability Assessment	Location relatively divorced from existing services, which would require substantial investment to deliver physical and social infrastructure.

- 4.17 Overall this location relates relatively poorly to existing public transport network; and is located at some distance from existing main employment centres. There is limited existing service provision. The location is less sustainable and less deliverable than other potential growth locations.

Cheddington

- 4.18 Cheddington has been identified as a potential new settlement option in particular given the presence of a rail station on the West Coast Main Line, which has a 40-45 minute journey time to London.
- 4.19 Whilst the location benefits from a rail connection, it is however at some distance from the main road networks (strategic and A roads) and larger settlements and has a limited existing range of facilities. Development would also have a potentially greater landscape and visual impact than at other potential locations; and there is potential for new development to impact on the Chilterns AONB. It is not considered that this location has the capacity to support the scale of development needed.

Figure 11: Environment and Policy Constraints – Cheddington



CHEDDINGTON	
Settlement Size and Location:	Large village of 1,750 population, located in the east of the District. Situated 10 miles north-east of Aylesbury, and 6 miles south of Leighton Buzzard. The village is situated 5 miles south of the A4146, and 5 miles north of the A41.
Potential Growth Directions:	Potential for growth immediately around the settlement influenced by local landscape designations and the impact on Mentmore Park. Potential for freestanding settlement to the north-east of Cheddington.
Environment & Landscape Assessment:	<p>Intrinsic rural character but relatively few landscape constraints, however, consideration would need to be given to setting of the AONB to the south-east and Cheddington Local Landscape Area which covers the area to immediate southwest of the village. Tree and hedgerow planting could be used to integrate any new development and improve landscape pattern.</p> <p>Mentmore Towers and Park constrains potential growth to the north of the existing settlement.</p> <p>An Aerodrome Safeguarding Zone extends to Cheddington and covers land to the south and east of the village.</p> <p>Greatest potential for new strategic development lies to the west of Horton, north-west</p>

	of Cheddington.
Accessibility:	Comparatively weak road access; and potential significant upgrading of road infrastructure necessary to support strategic development. Settlement benefits from rail station on West Coast Main Line, situated 0.8 miles north-east of the village centre. This provides 1-2 trains ph to London, Watford, Milton Keynes Northampton. 41 minute journey time to London.
Existing Service Provision:	Settlement includes a shop, two pubs, village/ community hall, and a junior/primary school.
Indicative Potential Housing Capacity:	2,100 – 4,200 dwellings
Initial Deliverability Assessment	Higher deliverability challenges given lack of existing infrastructure in respect of services, and road/ regular local bus connections.

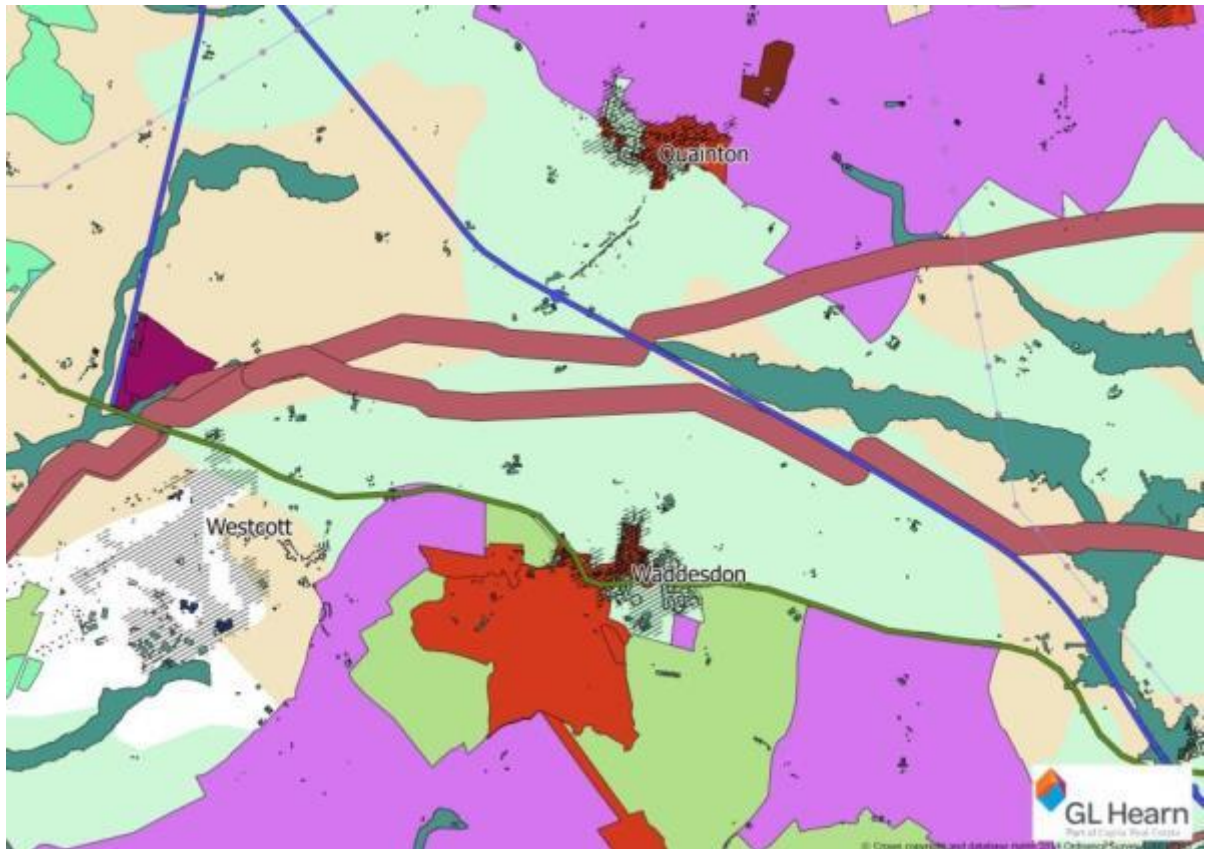
4.20 In addition to the potential impact of development on the Chilterns AONB there are higher potential deliverability issues associated with major growth at this location, in respect of upgrading infrastructure, but it could present a longer-term option for new development in a location close to a rail station. It relates more strongly in functional terms to parts of Bedfordshire and South West Hertfordshire.

Waddesdon

4.21 Waddesdon sits to the west of Aylesbury. The initial analysis indicated some potential for strategic development at Waddesdon. This is a large village, with a range of existing services and access to employment both at Westcott Venture Park and within Aylesbury. However development at this location would relate strongly to Aylesbury and would potentially compete (in commercial terms) with other growth locations in and around the Town. This could affect the potential pace of delivery.

4.22 The greatest potential for strategic growth identified in this area would be to the north-east of the settlement; however the route of the High Speed 2 Rail Line is expected to run through this area. Whilst this would influence the character of the area, the construction impacts; noise and severance effects could influence the potential for sustainable development and deliverability (including delivery timescales).

Figure 12: Environmental and Policy Constraints – Waddesdon



WADDESODN	
Settlement Size and Location:	Large village (population 1800) situated 5.5 miles north-west of Aylesbury, 12 miles south-east of Bicester and 20 miles south of Milton Keynes.
Potential Growth Directions:	➤ Free standing settlement to the north-east
Environment & Landscape Assessment:	<p>Landscape setting is sensitive around Waddesdon Manor, much of which is designated Historic Parks and Gardens. This lies within the Winchendon Hills Area of Attractive Landscape which extends to the south. There is another Area of Attractive Landscape at the Quainton Hills to the north. Waddesdon Manor and Conservation Area designation limit the potential for strategic development to the south of the existing settlement.</p> <p>A ribbon of flood zone (zones 2 and 3) lies between the villages of Waddesdon and Quainton.</p> <p>The proposed High Speed 2 route lies to the north of the settlement.</p>
Accessibility:	Located on A41 between Aylesbury and Bicester. Regular bus service (route 16) to

	Aylesbury and Bicester; with additional local services (17 and 112). 3 miles from Aylesbury Vale Parkway Station, and 8.5 miles from Haddenham and Thame Parkway.
Existing Service Provision:	Existing services include shop, two pubs, post office, GP surgery, village/ community hall, places of worship, junior/primary school and secondary school. Some employment provision within the village, but also close to Wescott Venture Park Strategic Employment Site.
Indicative Potential Housing Capacity:	5,250 – 7,350 dwellings
Initial Deliverability Assessment	A41 would potentially require relief schemes to resolve congestion. Potential requirement for a bypass subject to detailed investigation. HS2 rail line runs through potential new settlement location.

Doddershall

- 4.23 There is a potentially relatively unconstrained land around Upper South Farm, Doddershall, located 8 miles north-west of Aylesbury. The location's main attribute is that it sits on the rail line between Aylesbury and Winslow; however there is no station at this location, nor one planned. The location is situated away from the main road network; and has no existing services (albeit that services could be provided through growth). Relative sustainability of growth at this location is low.
- 4.24 Significant investment would be needed to bring forward strategic development at this location, including substantial investment in delivering new physical, social and community infrastructure. The relative deliverability of growth at this location is lower than other locations. Furthermore the proposed High Speed 2 Rail Route runs through this location. Whilst this would influence the character of the area, the construction impacts; noise and severance effects could influence the potential for sustainable development and deliverability.
- 4.25 The location benefits from a distinctive overall character and number of important landmark/heritage features within the local area; and thus landscape and heritage impacts of development would be comparatively higher than at other potential locations.

Figure 13: Environmental and Policy Constraints – Doddershill



LAND AROUND UPPER SOUTH FARM, DODDERSHALL	
Settlement Size and Location:	Standalone potential location situated around Upper South Farm/ Doddershall. Located 2 miles north-west of Waddesdon and 1.7 miles south of Quainton. Located 8 miles north-west of Aylesbury and 12 miles south-east of Bicester.
Potential Growth Directions:	Large area of unconstrained land of c. 550 ha.
Environment & Landscape Assessment:	Despite some variations, distinctive overall character and number of important landmark/heritage features within the local area. Woodland is a characteristic feature and new woodland block/belts could be particularly effective at integrating development. Knapp Hook Wood located to the north-west and would form natural boundary to potential development area. High Speed 2 route planned to run through this potential location.
Accessibility:	Poor relative accessibility. No existing public transport services. Would require investment to provide access to A41 including upgrading of local road infrastructure and potential bypass to Waddesdon. Rail line runs through this location, but no current or planned station. Located 5 miles from Aylesbury Vale Parkway.

Existing Service Provision:	No existing service provision in the locality. Existing service provision within Waddesdon, 2 miles distant. 3 miles from Wescott Venture Park Strategic Employment Site.
Indicative Potential Housing Capacity:	N/A
Initial Deliverability Assessment	Low relative deliverability, taking account of substantial infrastructure costs including in providing access to the location.

Stewkley

- 4.26 There is relatively unconstrained land to the south-west of Stewkley, particularly to the west of the settlement towards Hoggeston and Littlecote. The location is situated away from the main road network; and has limited existing public transport services and local facilities (albeit that these could be improved through growth). The location offers limited potential to deliver a substantive employment component to new development. Relative sustainability of growth at this location is low.
- 4.27 Significant investment would be needed to bring forward strategic development at this location, including substantial investment in delivering new physical, social and community infrastructure. The relative deliverability of growth at this location is lower than other locations.

Figure 14: Environmental and Policy Constraints – Stewkley



STEWKLEY	
Settlement Size and Location:	Large village (population c. 1850). Located c. 5.5 miles from Leighton Buzzard, 7 miles south-west of Bletchley, 12 miles south of Milton Keynes and 11 miles north of Aylesbury.
Potential Growth Directions:	Growth to the south-west of the existing settlement.
Environment & Landscape Assessment:	Area generally free of nationally-significant environmental and policy designations. Grade 2 and 3 agricultural land. The area has a distinctive character and high degree of visibility, but sense of place disrupted by airfield and sheds. Areas in closer proximity to the former airfield may be better able to accommodate new development. Overhead power lines running to the south of Stewkley, which could influence development potential.
Accessibility:	Poorly connected to larger centres. Stewkley Road provides local access. Located 3 miles south-west of A4146 which provides access to Leighton Buzzard, Bletchley and Milton Keynes (via A5) and Aylesbury (via A418). Infrequent existing bus services (153, 154 and 162) which provide connections to Aylesbury and Leighton Buzzard. No rail line.

Existing Service Provision:	Existing services include a shop, two public houses, 2 village/community halls, a junior/primary school and place of worship.
Indicative Potential Housing Capacity:	N/A
Initial Deliverability Assessment	Low relative deliverability, taking account of substantial infrastructure costs including in providing access to the location.

Steeple Claydon

- 4.28 Steeple Claydon is a village situated in a rural location far from the existing strategic road network and with very limited public transport access. The existing settlement provides a limited service provision.
- 4.29 The site is located close to the existing railway line however there isn't a station currently in the vicinity of the site. However, the site is located at intersection of the East West Rail and HS2 rail developments and delivery of these schemes provide a rationale for considering this site for strategic development. There is further potential for the location to be served by the Oxford–Cambridge Expressway, which will provide far better access to the strategic road network and service centres.
- 4.30 The site is relatively constraint free and provides the potential to support a considerable quantum of development.
- 4.31 We foresee potential for strategic development in this broad location in the longer-term, however, the construction impacts; noise and severance effects could influence the potential for sustainable development and deliverability in the short/ medium-term. This influences the capacity to deliver substantial growth within the plan period to 2033.

Figure 15: Environmental and Policy Constraints – Steeple Claydon



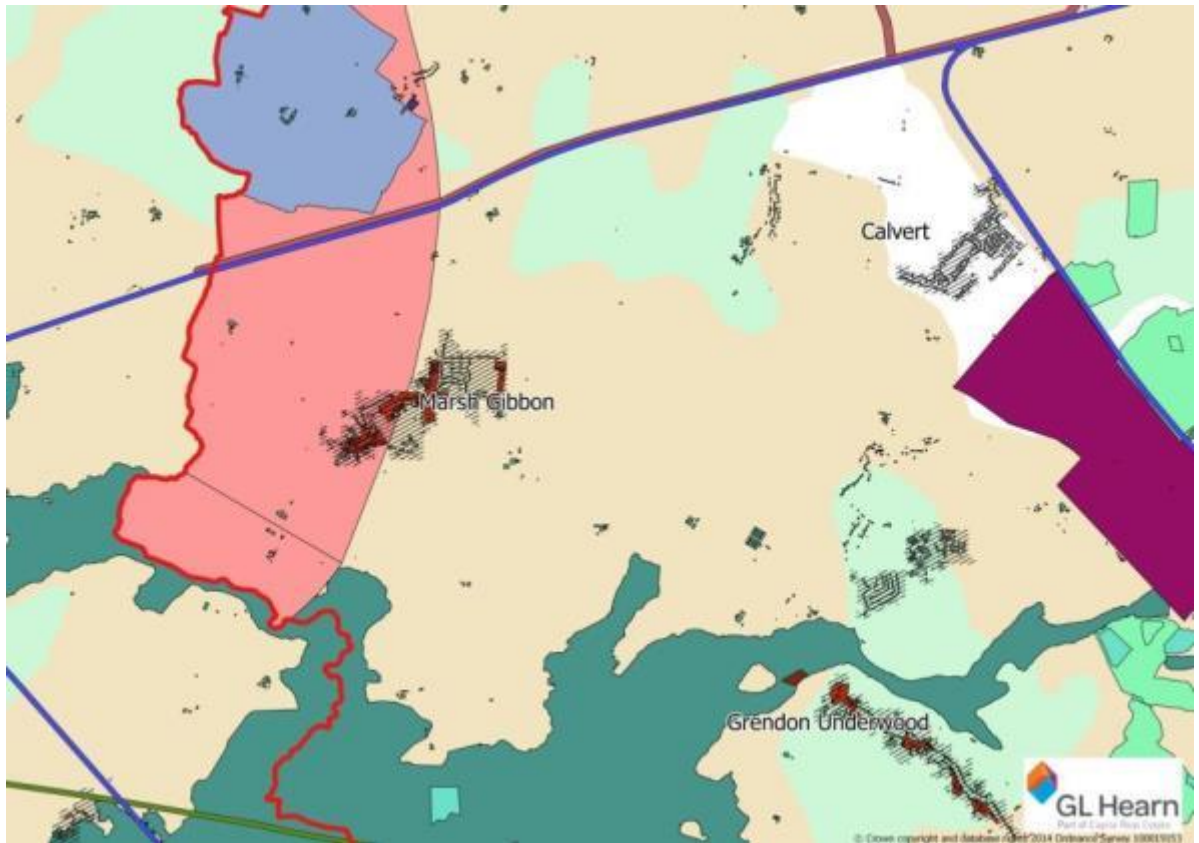
STEEPLE CLAYDON	
Settlement Size and Location:	Large village (population c. 2,100). Situated 16 miles north-west of Aylesbury, 9 miles northeast of Bicester and 7 miles south of Buckingham.
Potential Growth Directions:	To the west of the existing settlement.
Environment & Landscape Assessment:	<p>No significant landscape constraints, however views across the valley need to be considered. New tree and hedgerow planting could be used to integrate development and improve landscape pattern.</p> <p>Steeple Claydon is bounded on three sides by flood zones which run along Padbury Brook and its tributaries.</p> <p>Middle Claydon Conservation Area and Historic Park and Gardens is located to the south of the railway line.</p>
Accessibility:	<p>Rural location away from main road networks. A421 is located six miles to the north; A413 six miles to the east; and the A41 7 miles to the south. Potential that the site is served by new Oxford – Cambridge Expressway.</p> <p>The railway line runs through this location, but there is no station in the vicinity.</p>
Existing Service Provision:	Existing services include a supermarket, bakery, post office, a dentist, doctor's surgery and three public houses.

Indicative Potential Housing Capacity:	7,350 – 9,450 dwellings
Initial Deliverability Assessment	Major investment to route access required prior to any significant delivery.

Marsh Gibbon

- 4.32 As with Steeple Claydon, Marsh Gibbon is a rural village situated far from the existing strategic road network and with very limited public transport access. The existing settlement provides a limited service provision.
- 4.33 The site is located close to the intersection of the East West Rail and HS2 rail developments and the Oxford–Cambridge Expressway providing a rationale for considering this site for strategic development. The site is relatively constraint free and provides the potential to support a considerable quantum of development.
- 4.34 The limited existing transport and service provision as well as significant distance to larger employment centres means the deliverability of this site is limited in the short / medium term. However, as with Steeple Claydon, the location has the potential to be considered for strategic development in the longer-term. Again this influences the scale of development which could be delivered in the plan period to 2033.

Figure 16: Environmental and Policy Constraints – Marsh Gibbon



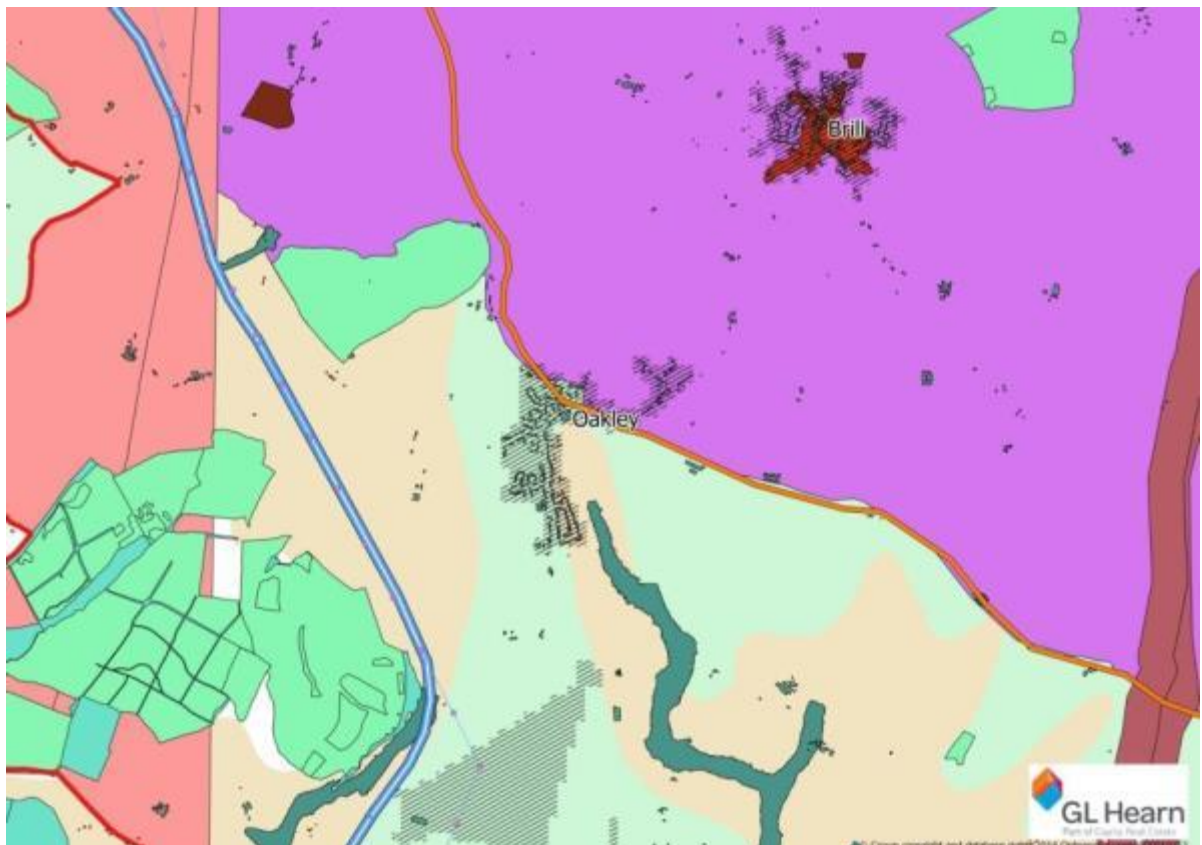
MARSH GIBBON	
Settlement Size and Location:	Village (population c. 1,000) situated close to the District's western border, 4 miles to the east of Bicester.
Potential Growth Directions:	Potential for growth to the east and south of Marsh Gibbon
Environment & Landscape Assessment:	The landscape is in very good condition, open with meandering watercourses. Strong character and sense of openness potentially makes landscape integration more challenging. Poundon Hill Local Landscape Area lies to the north of the railway line. A considerable area to the south is covered by flood zones with the majority of this Flood Zone 3. Land to the west of Marsh Gibbon lies within the Aerodrome Safeguarding Zone
Accessibility:	The A41 is located two and a half miles to the south. The M40 (Junction 9) is eight miles to the west. The railway line runs through this location, but there is no station in the vicinity.
Existing Service Provision:	A primary school, post office, and two pubs.
Indicative Potential Housing Capacity:	N/A

Initial Deliverability Assessment	Access route would require investment prior to any substantial delivery.
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Oakley

- 4.35 Oakley is situated close to the M40 in the south-west of the District, but is not close to current motorway junctions. It is not served by rail, nor a frequent bus service. Limited existing social infrastructure.
- 4.36 Substantial infrastructure investment would be required to bring forward development at this location. In relative terms, higher infrastructure costs affecting deliverability and its weaker public transport provision means it would be less sustainable than other growth options.

Figure 17: Environmental and Policy Constraints – Oakley



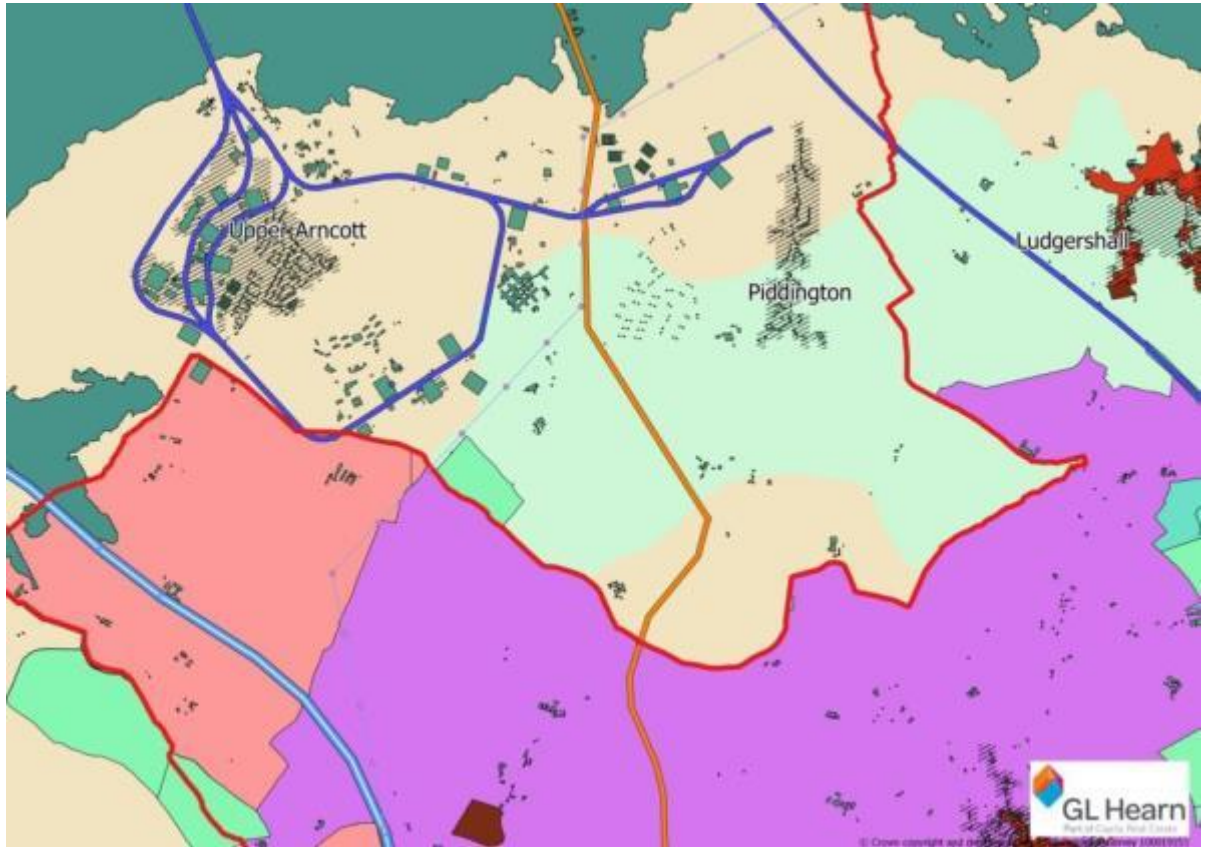
OAKLEY	
Settlement Size and Location:	Village (population c. 1,000) situated close to the District's western border, 17.5 miles west of Aylesbury, and approximately halfway between Aylesbury and Oxford.
Potential Growth Directions:	South of the existing village.

Environment & Landscape Assessment:	The area has a rural character. Surrounding landscape sensitivity is moderate. The area to the north of Oakley is covered by the Brill-Winchendon Hills Area of Attractive Landscape. Boarstall Wood – a designated Ancient Woodland – lies on the edge of the AAL to the north west of the village. To the south of the village there is a ribbon of flood zone (Flood Zone 2).
Accessibility:	Oakley is located on the B4011 which joins the A41 six miles to the north and the A418 six miles to the south. The M40 runs very close to the site however there is no motorway access nearby with the nearest junction 7 miles to the south (Junction 8A). Bus services serve the settlement, but do not run regularly.
Existing Service Provision:	A primary school and two pubs.
Indicative Potential Housing Capacity:	N/A
Initial Deliverability Assessment	Delivery limited by the need for substantial accessibility improvements to the B4011 and limited existing services in the vicinity.

Arcott

- 4.37 Arcott is located on the District boundary between Aylesbury Vale and Cherwell. It is relatively close to Bicester, which is a major existing growth location, which could result in a degree of competition in market terms. In environment and landscape terms, this location is free of nationally significant constraints but there are some potential impacts of development in landscape and visual terms.
- 4.38 Land with development potential includes an MOD Storage and Distribution Centre site, should this be released for development. Land availability is currently uncertain and it is not clear what land remediation might be required. If brownfield land becomes available, the potential of this location could be explored further subject to detailed consideration of the infrastructure necessary to support strategic growth, including access to the M40/ main road network. Consideration of this location would need to be taken forward jointly by Aylesbury Vale District and Cherwell District Councils.
- 4.39 Questions regarding land availability, competition from sites in Bicester, and the potential need for significant new infrastructure limit the development potential at this location within the plan period to 2033. In particular there is clear potential for competition with sites at Bicester, where delivery of 10,000 homes is planned, and limited potential for the market to support additional growth in this area in the short/ medium-term.

Figure 18: Environmental and Policy Constraints – Arccott



ARNCOTT	
Settlement Size and Location:	Village (population c. 1,700) located in Cherwell District just outside Aylesbury Vale District boundary. The village is approximately 3.5 miles southeast of Bicester.
Potential Growth Directions:	MOD Defence Storage and Distribution Centre located to the south of the existing village. Potential site straddles border with Aylesbury Vale and Cherwell Districts.
Environment & Landscape Assessment:	Land directly to the south of Upper Arccott – within Aylesbury Vale District – falls within the Aerodrome Safeguarding Zone. The wider area is covered by the Brill-Winchendon Hills Area of Attractive Landscape.
Accessibility:	Site is somewhat isolated and has very limited public transport accessibility. Located approximately one mile west from the B4011 and 2.5 miles south of the A41. The M40 runs very close to the site however there is no motorway access nearby with the nearest junction 6 miles to the northwest (Junction 9).
Existing Service Provision:	Very limited services in the vicinity.
Indicative Potential Housing Capacity:	N/A
Initial Deliverability Assessment	Delivery limited by the need for substantial accessibility improvements to the B4011 and limited existing services in the vicinity. Major development would be dependent on

	the creation of a new junction on the M40.
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Drawing the Analysis Together

- 4.40 A significant proportion of Aylesbury Vale District is free from nationally significant environmental and policy constraints. This means that there are a range of potential locations which could in theory accommodate strategic development. The above analysis has considered individually 11 potential locations for strategic growth.
- 4.41 The most sensible locations for a new settlement would be those which are served by (or capable of being served by) high quality and frequent public transport services which link it to higher order centres for employment and services. To support modal shift the best locations would be those which benefit from rail access, as this provides the potential to support greater modal share than bus. These are considerations of particular strategic significance. To be successful economically, the preferred locations should also relate strongly to existing strategic/ main road corridors. In the absence of overriding constraints which dictate potential locations, these are factors to which we would attach particular weight.
- 4.42 Of the 11 locations considered, four locations were identified which although there was the physical potential to accommodate strategic development, would be ranked lower in terms of their relative sustainability, taking account of public transport (particularly rail) access and their distance from larger employment centres. These locations, which did not relate to existing or planned rail corridors, were:
- Turweston Airfield
 - Granborough
 - Stewkley
 - Oakley
- 4.43 However, it was noted that Turweston Airfield offered high potential in terms of landscape character due to existing weak structure and sense of place within and around the airfield.
- 4.44 Whilst HS2 is expected to run close to Waddeston, there is unlikely to be a station at this location. At Arcott, there is freight rail access, but the location is not on an existing regular rail line.
- 4.45 In deliverability terms, we would also consider that there is greater potential to bring forward development at a location which benefits from existing/ planned infrastructure – in terms of public transport facilities, existing services and community infrastructure.

- 4.46 Two potential candidate locations – Waddesdon and Doddershall - were discounted initially as development potential was constrained by a lack of current/ potential rail access, and strategic development potential and deliverability was impacted by the proposed High Speed 2 Rail Line which ran through the potential new settlement locations.
- 4.47
- 4.48 The other locations considered offer greater growth potential. The Consultancy Team considered however that these could be divided into two categories:
- Stronger locations in the short/ medium term; and
 - Medium / longer-term growth options.
- 4.49 In the short/ medium-term, there is greater potential to accommodate development in locations which:
- Benefit from an existing or planned rail station providing connections to larger employment centres;
 - Provide a range of existing everyday services, including primary school provision, shops and local services;
 - Include some existing employment provision; and are situated at a location which could support enhanced employment provision;
 - Are somewhat separate from and would not compete directly (in market terms) with existing major growth locations within Aylesbury Vale or surrounding area. This is necessary in order to support drive the pace of growth; and
 - Would have the least impact on environmental resources, including landscape character and heritage assets.
- 4.50 Of the initial options identified, Winslow and Haddenham performed highest on these criteria; and were therefore identified as the locations with the greatest potential to accommodate strategic development.
- 4.51 These locations benefitted from an existing rail station (Haddenham) or one which is already committed to be delivered (Winslow), providing certainty about rail access to support sustainable transport for new development. The only other of the 11 locations for which this was true in Cheddington; however this is located away from existing main road corridors which would potentially inhibit employment development and increase potential costs of transport infrastructure improvements. Furthermore landscape and heritage impacts restrict growth potential in/around Cheddington: in particular its proximity to the Chilterns AONB. They are considered further through the Stage 3 analysis in Chapters 5 and 6.

- 4.52 In the medium/ longer-term, there are however a number of locations where potential infrastructure investment could support strategic development. These include:
- Steeple Claydon/ Marsh Gibbon – associated with major infrastructure investment;
 - Arccott – depending on the release of land and major infrastructure investment; and
 - Cheddington - subject to a more detailed appraisal of landscape and visual constraints.
- 4.53 The longer-term potential at Steeple Claydon/ Marsh Gibbon reflects the potential substantive change in the character of the area through delivery of HS2, the longer-term potential for a new station on East-West Rail and local road improvements associated with the construction of HS2 and the Train Depot as well as potentially the Oxford – Cambridge Expressway. The significant construction impacts in the short-to-medium term mean that this is however considered a longer-term option.
- 4.54 At Arccott, this could be considered as a future location for strategic development subject to release of MOD land and improvements in infrastructure, in particular road and public transport accessibility. In the short/ medium-term, there are higher uncertainties and risks associated with strategic development at this location.
- 4.55 Development at Cheddington is identified as having higher potential landscape and visual impacts, but some potential for growth to the east of the rail line is identified subject to detailed investigation. This could be considered as a location for growth should an unmet need from an adjoining area to the east of Aylesbury Vale be identified subject to detailed consideration of impacts and infrastructure requirements.

5 STRATEGIC DEVELOPMENT AT WINSLOW

5.1 This section moves on to consider further the potential for strategic growth at Winslow. As the Winslow Neighbourhood Plan 2014-31 sets out, Winslow was an ancient royal manor. It secured a market charter in 1235. The town grew during the 19th and early 20th centuries, supported by the development of the railway line/ station in the 1850s, which subsequently closed to passengers in 1968. In the post-war period further development has occurred on the Elmfields Estate on the east side of the High Street; and Magpie Estate to the north-west of the town.

5.2 Winslow sits centrally within the District, and acts as a large service centre. It accommodates a range of services, including convenience top-up retailing as well as primary and secondary education provision. The settlement's employment offer is however relatively modest, comprising the 1.59 ha Winslow Business Park at Station Road, although there is planning consent for further provision at Buckingham Road/Furze Lane. It relies on larger settlements, such as Buckingham, Aylesbury and Milton Keynes.

The Winslow Neighbourhood Plan

5.3 The existing policy framework for development is outlined in the Winslow Neighbourhood Plan 2014-31. This makes provision for:

- Residential development within the settlement boundary through five allocations:
 - Land East of Furze Lane (c. 250 dwellings);
 - Land at Winslow Rugby Club (c. 75 dwellings);
 - Land at Granborough Road;
 - Land off Station Road (c. 65 dwellings); and
 - Land at Winslow Centre (c. 30 extra care dwellings).
- Employment and community use of Land South of Buckingham Road, comprising:
 - c. 1.5 ha of land for B1, B2 and B8;
 - c. 1.35 ha of land for the railway station, bus layby, cycling and taxi facilities;
 - c. 1.5 ha for educational use (new secondary school).
- Employment provision on Land North of Buckingham Road;
 - 4.2 ha for B1, B2 and B8 business use.
- Provision of a small supermarket (, 300 sq.m trading area) on land off Elmfields Gate;
- Provision of a new community centre on Land at the Paddock, off Elmfields Gate;
- Provision of a new medical facility on Land at the Winslow Centre; and
- Sports facilities at Land West of Great Horwood Road.

5.4 The Neighbourhood Plan sets out provision overall for c. 455 new homes over the period to 2031, in addition to commitments for 230 homes which had permission prior to 2011. It recognises and seeks to address key issues affecting the settlement, including:

- Enhanced accessibility through reopening of the railway station;
- Limited current employment provision, and notable out-commuting;
- Provision of a secondary school within the settlement;
- Improved community and social infrastructure.

5.5 The Plan however recognises that the scale of existing facilities mean that there is a notable level of out-commuting to work and for shopping leisure purposes (with the settlement principally providing for top-up convenience retail and everyday services). Its strategy is to seek balanced growth in population, employment and services – with the population reaching c. 6,000 by 2031.

Strategic Considerations

5.6 With substantial growth would come an opportunity to transform the existing level of service provision in Winslow, including in delivering additional convenience shopping provision (such as a larger supermarket); and boosting the comparison and leisure offer within the settlement to serve an expanded population.

5.7 A secondary free school, Sir Thomas Fremantle Secondary School, opened in Winslow in 2013. It currently accommodates c. 300 students; and plans to grow to c. 600 students. The Neighbourhood Plan includes provision for the development of purpose-built facilities for the school on Land South of Buckingham Road to the north of the rail line in the north-east of the settlement, adjoining the new station. If additional growth is planned, the potential to expand the school further in the medium/ longer-term will be important.

5.8 Winslow's current level of employment provision is modest and is primarily concentrated in the Shopping Area and within the Station Road Industrial Estate. The latter is proposed for residential redevelopment in the Neighbourhood Plan; which proposes instead new employment provision of the northern side of the settlement (north of the railway line) through the allocation of 5.7 ha of land (equivalent to 4.2 ha net of the redevelopment of land at Station Road).

5.9 It seems entirely reasonable that the scale of employment provision at Winslow could be enhanced: however Winslow's location at some distance from the major towns; and away from major road corridors such as the A41, A418 and A421, means that we would consider commercial demand for substantial new employment development at this location to be lower than at other alternative growth locations within the District (including Haddenham).

5.10 Whilst with major growth at Winslow there is evidently potential for to enhance the level of commuting self-containment within the settlement, other growth locations which relate more strongly to key transport corridors could likely support higher relatively self-containment (for a given size) than Winslow would be able to achieve.

- 5.11 The settlement is thus likely to continue to rely in part on out-commuting to larger employment centres, such as Buckingham; Milton Keynes; and Aylesbury. Winslow would however benefit from strong public transport accessibility to these locations, noting that East-West Rail would deliver:
- 2 trains per hour to Milton Keynes
 - 1 train per hour to Bedford
 - 2 trains per hour to Bicester, Oxford and Reading
 - 1 train per hour to Aylesbury, High Wycombe and London
- 5.12 A significant number of larger employment centres would be within 30 minutes commuting distance by rail, including Milton Keynes, Aylesbury, Bicester, Oxford and Bedford; making the town one of the most well connected locations in Buckinghamshire by rail.
- 5.13 By road, the A413 provides connections north and south; however there is potential that east-west road connectivity could be improved through delivery of the A421 Expressway proposals, albeit that potential routes and the feasibility of this have not been confirmed.
- 5.14 Within the settlement, traffic congestion along Sheep Street, Horn Street and the High Street is an issue at peak times, and consideration of the impacts of new development of traffic flows would need to be carefully considered if this option is taken forward. With major growth, consideration would need to be given to a link road which diverts traffic away from Winslow Town Centre.
- 5.15 The historic core of the settlement is designated as a Conservation Area. This includes the High Street and Station Road, along Horn Street and Sheep Street, views from Sheep Street to Winslow Hall; church views from the bend on Horn Street; fields south of Winslow Hall of surrounding landscape; as well as from Tunkers End out towards Granborough. The conservation area designation extends beyond the built-up area at the south of the settlement, protecting views from the historic core to the surrounding landscape. The impact of new development on the conservation area and heritage assets are important considerations influencing growth potential/ directions.
- 5.16 In respect of land surrounding Winslow, few areas are subject to nationally-significant environmental or policy designations. Some land to the south and south-west of the settlement is susceptible to flooding from the Clayton Brook; as well as some land between Foxhill Farm and Great Horwood Road to the north. In broad terms, land to the south and west of the settlement is Grade 2 agricultural land (very good quality). Land immediately to the north of the rail line also falls principally within Grade 2; although the broader designations indicate that land to the north and east of the settlement are generally designated as Grade 3 (good to moderate quality).
- 5.17 Winslow's location on main road and rail corridors, and with a range of existing services, supports its potential for strategic growth. The rationale for strategic development at Winslow would be in particular to:

- Capitalise on the improved accessibility associated with the reopening of the rail station;
- Capitalise on the potential for improved east-west connectivity associated with the A421 Expressway proposals;
- Strengthen the provision of services and infrastructure for the settlement;
- Enhance the employment offer.

5.18 The greatest potential for strategic development exists to the north of the town. The main opportunities and constraints relating to any new development in this location can be summarised as follows:

- Potential for development within the existing airfield area, which is located to the north of the settlement. This could be brought forward as a standalone development;
- Potential to extend development beyond the airfield boundary if required, primarily eastwards, towards Great Horwood Road;
- Any development within the airfield would need to consider the relationship with surrounding villages, such as Great Horwood and Little Horwood, and avoid impact on the Conservation Areas
- Any development could incorporate an area of green infrastructure to the north of the airfield site, providing a buffer to Great Horwood/Little Horwood, and creating a new link within the existing footpath network;
- Land immediately north of Winslow is identified as an area of growth, and could form part of an integrated urban extension with any new development within the airfield;
- Land to the south-east and south of Winslow unlikely to be suitable for development due to encroachment on the countryside and impact on the Conservation Area. Development to the south / south-west would result in an unacceptable change in the settlement character and associated topography;
- Development to the east would harm the distinctiveness of the landscape and setting and character of the town, including its sharp urban edge;
- Planned transport improvements, such as the East-West Rail Link and A421 Expressway will provide enhanced connections and accessibility to Winslow and are well located to serve any new development to the north of the town.

Potential Growth Options

5.19 Three potential strategic growth options (as set out in Appendix C) have been developed for Winslow. These comprise:

- Option 1: Grow Winslow – through extensions to the existing built-up area;
- Option 2: Northern Expansion – strategic growth north of the railway line;
- Option 3: New Garden Village – on the airfield site to the north of Winslow.

5.20 The analysis is based on a broad assessment of overall capacity and is not intended to provide precise analysis of development potential of specific sites or recommend specific sites for allocation.

Option 1: Grow Winslow

- 5.21 This option includes the following potential development locations, focused on extending the existing built-up area where opportunities exist:
- Includes main sites identified through HELAA, but excludes sites to the south-east, south-west and north-west due to likely landscape/heritage sensitivities and to the east given landscape impacts including on the character and setting of the town and its clearly defined eastern urban edge. These are identified as not suitable within the HELAA.
 - Land to north considered part suitable within HELAA and is identified for up to 585 homes and could support further development
 - Land to north-west includes a combination of sites with allocations/ planning permissions for up to 325 homes overall.
- 5.22 This option generates potential for 500+ homes over and above that identified in the HELAA.

Option 2: Northern Expansion

- 5.23 This option includes the following potential development locations, focused particularly on northern expansion of the settlement (as proposed in the Neighbourhood Plan):
- Includes limited expansion of Winslow based on existing permissions/preferred sites identified through HELAA.
 - Integrated northern expansion, intensifying development within land to north, and connecting to development within the airfield.
 - Development within airfield could deliver over 6,000 homes. This could be sufficient to allow a secondary school as well as two primary schools, local services, and employment area.

Option 3: New Garden Village

- 5.24 This option focuses on delivering a new Garden Village as a standalone growth location focused on the Airfield site to the north of the town. It envisages:
- Limited expansion of Winslow based on existing permissions/preferred sites identified through HELAA.
 - Development capacity at land to the north may be reduced in order to ensure there is sufficient separation with the new village.
 - New village within airfield could deliver over 6,000 homes. This could be sufficient to allow a secondary school as well as two primary schools, local services, and employment area

Infrastructure Provision

- 5.25 An initial assessment of the feasibility of major growth at Winslow has been undertaken, taking account in particular of the transport infrastructure which might be required to support strategic

growth and the indicative costs of this. The initial assessment focuses on local junction improvements which might be necessary.

- 5.26 Strategic growth at any location within the District will require investment to deliver new infrastructure, including transport, utilities and community/ social infrastructure.

Junction Modelling

- 5.27 An initial assessment of junction capacity and improvements necessary to support development has been undertaken, following the approach set out in Appendix D. The assessment considers the potential to accommodate 6,000 homes.
- 5.28 Key junctions have been assessed which are impacted. The aim is to assess these impacts on the highway network and compare them between the two shortlisted locations. Where necessary mitigation schemes have been identified and these have been assessed in both traffic impact terms and in terms of costs.
- 5.29 The results are shown below for the situation with the development. The right hand column sets out the mitigation would be required.

Table 6: Winslow Assessment of Existing Junctions with Development

		Total Flow	LOS	Max RFC	Queue in Vehicles	Comments
A421 / B4033 Nash Rd	AM	4108	F	1.86	529	This roundabout does not work in either the Do Minimum or with the development. See assessment below
	PM	4125	F	1.45	173	
B4033 Nash Rd / Little Horwood Rd	AM	1909	F	2.70	829	Insufficient capacity for a priority and conversion to roundabout has been tested.
	PM	1805	F	1.89	280	
Little Horwood Rd / Church St	AM	1332	B	0.33	1	Priority junction tested with a right turning lane.
	PM	1664	F	1.18	95	
A413 Sheep St / Winslow Rd	AM	1972	F	2.83	606	Priority junction does not work so a 3 arm roundabout has been tested requiring realignment of approach roads.
	PM	1929	F	2.52	302	

- 5.30 All the junctions operate with an Ratio-to-Flow Capacity (RFC) beyond 1.0 (i.e. are above capacity) and with a level of service of F (very poor with significant and unacceptable delays). The results shown are highly distorted as the model is operating beyond its limits. Nevertheless the conclusion is clear in that the junctions are operating beyond capacity and require modification.
- 5.31 The most problematic junction is the A421 / B4033 Nash Road junction which is forecast to have some 4000 vehicles an hour in 2033 with the development scenario tested. The results of the modelling at this junction without and with the development is shown on Table 7.

Table 7: Traffic Modelling Results at A421 / B4033 Nash Road

Junction		LOS	Max RFC	Queue in Vehicles
Do Minimum (ie No Development)	AM	F	1.03	34
	PM	F	1.09	73
With Development	AM	F	2.70	829
	PM	F	1.89	280

- 5.32 Table 7 shows that the ratios of flow to capacity and queue increases at the junction with the development. This is an initial assessment and it should be recognised that traffic flows could be influenced by modal shift associated with the improved rail accessibility on reopening of the station. We have sought to identify potential mitigation at this junction which at least enables it to operate at a level similar to the situation without the development. This has required widening on each arm of the junction, longer flares and modifications to the central island. Given the scale of development planned, consideration would need to be given to providing a new link road connected northwards to the A421, and taking traffic away from Winslow Town Centre and Great Horwood.
- 5.33 In all other cases keeping the junctions as a simple priority junction would not work due to the high volumes of traffic on the minor arms conflicting with existing major road traffic. Where mitigation is required to address local impacts, our proposal is for roundabouts which would be more in keeping with the rural nature of the area. This would be particularly difficult at the B4033 Nash Road / Little Horwood Rd junction in the centre of Great Horwood as it would impact upon the village car park. Signalisation could be considered here alongside provision of a new link road connecting Winslow northwards to the A421. Further work will be needed to investigate wider transport impacts beyond these immediate junctions.
- 5.34 In all cases where mitigation is proposed land would be required outside of the highway boundary. Layouts will require refinement and optimization so should only be considered indicative and have been generated in order to enable an initial costing exercise to be undertaken.
- 5.35 We have tested the proposed junction improvements with the following results shown on Table 8. Further technical work is clearly needed to consider the potential for provision of a link road which takes traffic away from Winslow Town Centre and connects northwards to the A421. The cost of this have not been estimated at this stage, but could potentially be substantial.

Table 8: Junction modelling results with Mitigation

Junction		Mitigation	LOS	Max RFC	Queue
A421 / B4033 Nash Rd	AM	Widened entries and flares & changes to the central island	F	1.08	71
	PM		D	0.88	7
B4033 Nash Rd / Little Horwood Rd	AM	A 3arm roundabout although signalization may be preferred	C	0.90	8
	PM		C	0.75	3
Little Horwood Rd / New Settlement	AM	Proposed 3 arm roundabout	D	0.91	10
	PM		D	0.77	
Little Horwood Rd / Church St	AM	Add right turn lane to existing priority	B	0.33	1
	PM		D	0.82	5
B4033 Great Horwood Rd / New Settlement	AM	Proposed priority junction	C	0.67	2
	PM		B	0.69	3
Winslow Rd / New Settlement	AM	Proposed 3 arm roundabout	D	0.89	7
	PM		D	0.87	6
A413 Sheep St / Winslow Rd	AM	3 arm roundabout and realignment of approach roads	D	0.88	7
	PM		C	0.80	4

5.36 The above shows that all the junctions converted from priority junctions to roundabouts work satisfactorily with the proposed mitigation to address local impacts. At the A421 / B4033 Nash Road junction the mitigation results in the junction performing in line with the situation without the development. The strategic need for a western link road which diverts traffic away from Winslow Town Centre; and for a link northwards to the A421 to mitigate the impacts of growth on roads through Little Horwood and Great Horwood require further consideration.

Junction Improvement Costings

5.37 We have undertaken a broad estimation of costs of localised improvements and this summarised on Table 9. Costs exclude land and works required for utility diversions.

Table 9: Preliminary Costs £m

Junction	Mitigation	Costs £m
A421 / B4033 Nash Rd	Widened entries & flares & changes to the central island	1.35
B4033 Nash Rd / Little Horwood Rd	A 3 arm roundabout	1.4
Little Horwood Rd / New Settlement	A 3 arm roundabout	1.4
Little Horwood Rd / Church St	Add right turn lane to priority	0.3
B4033 Great Horwood Rd / New Settlement	3 arm priority junction	0.5
Winslow Rd / New Settlement	3 arm roundabout	1.4
A413 Sheep St / Winslow Rd	3 arm roundabout & realignment	1.82
Total		£8.1m

5.38 This initial assessment indicates that there are evident costs associated with highways improvements required to support development at Winslow. The more substantive questions regard potential wider effects including the potential need for a link road to divert traffic away from Winslow Town Centre; and a new link northwards to the A421. The potential feasibility and costs of these could have potential implications on the deliverability of strategic growth at Winslow and require further technical assessments to be undertaken.

5.39 In respect of utilities, a new development of up to 6,000 new dwellings is likely to require substantial new infrastructure, however utilities provides are required to deliver infrastructure to support development. Further interrogation will be required alongside masterplanning work.

6 STRATEGIC DEVELOPMENT AT HADDENHAM

- 6.1 This section moves on to consider further the potential for strategic development at Haddenham. As the Haddenham Neighbourhood Plan 2013-33 sets out, Haddenham was originally formed of three ancient hamlets – Church End, Fort End and Towns End, situated along a stream. Land between these has gradually been infilled, and forms the historic core of the settlement extending along High Street and Fern Lane, and is designated as a Conservation Area. The settlement grew notably in size between the 1940s – 1970s, but the population has stagnated and fallen slightly over the period since 1981.
- 6.2 The settlement is designated as a strategic settlement and large service centre, and is situated off the A418 which connects to Thame and the M40 to the west; and to Aylesbury and Luton to the west. A new rail station, Haddenham and Thame Parkway, was opened in 1987, and is located on the western side of the settlement. This provides regular direct services to London Marylebone, High Wycombe, Bicester, Banbury and Birmingham. A regular service is now provided to Oxford Parkway; and shortly the settlement will be directly connected by rail to Oxford.
- 6.3 Haddenham provides a range of everyday services, including a Post Office, greengrocer, two convenience stores, a butcher, Medical Centre, and dental practice; however there is no bank, nor larger supermarket. Employment provision is focused in Haddenham Business Park and Thame Business Park, with the settlement accommodating some larger businesses such as McCormick. Reflecting its size, there is significant out-commuting to work. Wider employment opportunities and services are available in Thame, which lies two miles the south-west.

The Haddenham Neighbourhood Plan

- 6.4 The existing policy framework for development is outlined in the Haddenham Neighbourhood Plan 2013-33. This sets out policies which relate in particular to development management, local greenspace designations, for delivery of an integrated community facility at Banks Park as well as retail and B1 commercial development.
- 6.5 The spatial strategy and housing policies within the plan have been quashed; but proposed a number of housing allocations including a large allocation on the airfield site on the northern side of the settlement (part of which had previously been designated for employment).

Strategic Considerations

- 6.6 With substantial growth would come an opportunity to transform the existing level of service provision in Haddenham, including in delivery additional convenience shopping provision (such as a supermarket); and boosting the comparison and leisure offer within the settlement to serve an expanded population.

- 6.7 The settlement currently includes pre-school provision; the Haddenham Community Infant School St Mary's church of England Infant School; and Haddenham Community Junior School. However it lacks secondary school provision, with children principally travelling to schools in Aylesbury, Princes Risborough and Waddesdon (and for some to Thame). If strategic growth is planned, new secondary school provision could be progressed.
- 6.8 There is a reasonable level of employment provision for the current settlement size, as well as local access to existing employment opportunities in Thame. It seems reasonable that the scale of employment provision could however be enhanced. The attractiveness of this location for business investment is supported by its accessibility to the M40 and Oxford, as well as the fast rail service to London (40-45 mins). The rail journey time from Haddenham to London is one of the fastest for stations within the District. Coupled with the existing employment provision within the immediate area, including within the settlement and Thame, there is a stronger potential at this location for more localised and sustainable journey to work than other potential new settlement locations within the District.
- 6.9 A number of larger employment centres are within a 30 minute commuting distance by public transport, including Aylesbury, High Wycombe and Oxford; with London accessible within 45 minutes. The accessibility to larger employment centres such as Oxford and London enhances the potential delivery rates for housing which could be delivered at this location relative to other potential new settlement locations.
- 6.10 The historic core of the settlement is designated as a Conservation Area. This extends to the edges of the settlement at its northern and southern boundary. Development on land on the southern edge of the settlement would unlikely be suitable, given the potential impact on the Conservation Area and setting to listed buildings. Development potential is further restricted by land which falls within Flood Zones 2/3. There is greater potential for the strategic growth of the settlement in other directions.
- 6.11 In respect of land surrounding Haddenham, few areas are subject to nationally-significant environmental or policy designations. The River Thame lies to the north of the settlement close to Chearsley and Cuddington, with a tributary running to the south of the settlement. In broad terms, land to the west of the settlement is Grade 2 agricultural land; land to the east Grade 2 or 3a, to the north 2 or 3, and to the south Grade 3 or 4.
- 6.12 Haddenham's location on main road or rail corridors, with a range of existing services, supports its potential for strategic growth. The rationale for strategic development would build on:
- Haddenham's strong accessibility, including rail links to Oxford and London;

- Proximity and inter-relationship to Thames, providing access to a broader range of services and employment opportunities;
- Potential to enhance the employment offer within the settlement, with commercial demand supported by its proximity to the M40, rail accessibility and broader workforce catchment;
- Potential to enhance local retail and leisure provision within the settlement through strategic growth;
- Opportunity to improve community and social infrastructure, including through delivery of a new secondary school through strategic growth.

6.13 The main opportunities and constraints relating to any new development in this location can be summarised as follows:

- Potential for stand-alone development to the south-east of the existing settlement, ad/or through extensions to the existing urban area;
- Any development south-east of the existing settlement would need to consider any effects on the setting of the AONB (which is 4km to the south); impact on isolated dwellings/farmsteads, some of which are Listed Buildings; and intergrate with existing footpath network.
- Any development in this location would also need to consider the relationship with surrounding villages, such as Aston Sandford, Owlswick and Ford, and avoid impact on the Conservation Areas
- This area is also less well connected to existing transport links (in comparison to sites around Haddenham) and consideration would need to be given to creating new links/public transport provision.
- Potential for urban extension to the west of Haddenham, Any development in this location would need to consider impact on local landscape designation and ensure flood plain is protected.
- Any development in this location would also need to provide a suitable buffer to Thames to protect setting of town/Conservation Area and prevent coalescence. The flood plain could form part of this buffer.
- Land to the north of Haddenham considered to have potential for development due to former use as an airfield. Sites could potentially accommodate development if sensitively designed and would need to have regard to impact on local landscape character/designation and avoid development on local ridgeline to the north.
- Any new development to the north and west would be well served by existing railway/station and close proximity to the A418 between Thames and Aylesbury.
- Land to east of Haddenham could potentially accommodate limited development if sensitively designed as part of an overall growth strategy for Haddenham.
- Land to the south of Haddenham unlikely to be suitable for development due to encroachment on the countryside and impact on the Conservation Area.

Potential Growth Options

6.14 Three potential strategic growth options have been developed for Haddenham (see Appendix E). These comprise:

- Option 1: Grow Haddenham/Northern Eastern Expansion – through extensions to the existing built-up area;
- Option 2: New Garden Village – stand alone settlement to the south-east of Haddenham;
- Option 3: Western Expansion – on land to the west of Haddenham

The analysis is based on a broad assessment of overall capacity and is not intended to provide precise analysis of development potential of specific sites or recommend specific sites for allocation.

Option 1: Grow Haddenham/Northern Eastern Expansion

6.15 This option includes the following potential development locations, focused on extending the existing built-up area where opportunities exist together with north-east expansion:

- Includes main sites identified through HELAA, but excludes sites to the south due to likely landscape/heritage sensitivities.
- Land to north, within existing airfield, already has planning permission for 233 dwellings plus employment uses.
- Land to north, adjacent to the airfield, considered part suitable within HELAA, with the southern third identified for up to 210 homes. It is considered that the site could accommodate additional development if sensitively designed, including a strong landscape buffer to the north of the site.
- Land to the east considered not suitable within HELAA - could potentially accommodate development if sensitively designed and establishes an appropriate settlement edge.
- Land to the south-east is considered suitable/ part allocated in the Neighbourhood Plan.
- Land to the north-east also considered not suitable within HELAA, however, site benefits from close proximity to road and rail network, and could potentially accommodate development if sensitively designed and is well linked to existing settlement.

Option 2: New Garden Village

6.16 This option envisages delivery of a new Garden Village located east of Haddenham with limited expansion of the existing settlement. It envisages:

- Includes limited expansion of Haddenham based on existing permissions and preferred sites identified through HELAA.
- Land to the east of Haddenham as a standalone settlement could deliver over 7,000 homes. This could be sufficient to allow a secondary school as well as two primary schools, a small village centre, and employment area.
- Consideration would need to be given to transport links to the existing settlement, including access to the rail station.

Option 3: Western Expansion

6.17 This option envisages westward expansion of Haddenham with limited expansion of the existing settlement in other directions. It envisages:

- Limited expansion of Haddenham based on existing permissions and preferred sites identified through HELAA.
- Western expansion could deliver over 6,000 homes. This could be sufficient to allow a secondary school as well as two primary schools, local services, and employment area.
- Major growth to the west benefits from close proximity to existing transport infrastructure, including the A418 and rail station.

Infrastructure Provision

- 6.18 An initial assessment of the feasibility of major growth at Haddenham has been undertaken, taking account in particular of the transport infrastructure which might be required to support strategic growth and the indicative costs of this.
- 6.19 Strategic growth at any location within the District will require investment to deliver new infrastructure, including transport, utilities and community/ social infrastructure.

Junction Capacity Assessment

- 6.20 An initial assessment of junction capacity and improvements necessary to support development has been undertaken, following the approach set out in Appendix F. The assessment considers the potential to accommodate 6,000 homes.
- 6.21 Key junctions have been assessed which are impacted. The aim is to assess these impacts on the highway network and compare them between the two shortlisted locations. Where necessary mitigation schemes have been identified and these have been assessed in both traffic impact terms and in terms of costs.
- 6.22 The results are shown below for the situation with the development. The right hand column sets out the mitigation would be required.

Table 10: Haddenham Assessment of Existing Junctions with Development

Junction		Total Junction Flow	LOS	Max RFC	Queue in Vehicles	Comments
Aston Rd / Stanbridge Rd	AM	1795	F	2.35	372	Balanced flows so test a roundabout
	PM	1640	F	1.25	41	
Station Rd / Church Way	AM	1337	D	0.60	2	Junction OK
	PM	1136	B	0.35	1	
Thame Rd / Station Rd	AM	2027	F	3.18	1285	Could reverse the priority to Station Rd but unlikely to work. Signalisation is an option but convert to roundabout for testing.
	PM	1467	F	1.84	322	
Aylesbury Rd / Station Rd	AM	1481	F	1.69	258	Too much traffic on minor arm for a priority junction. Convert to roundabout
	PM	1432	F	1.30	81	
Aylesbury Rd / Thame Rd	AM	2892	F	2.15	465	Insufficient capacity for priority junction - convert to roundabout
	PM	3039	F	3.88	1315	
A418 / A4129	AM	5753	F	1.72	711	This will not work as a roundabout in either the Do Minimum or with the scheme. See assessment below
	PM	5855	F	2.48	1524	

6.23 Except for the Station Road / Church Way junction all the junctions operate with an RFC beyond 1.0 and with a level of service of F. The results shown are highly distorted as the model is operating beyond its limits. Nevertheless the conclusion is clear in that the junctions are operating beyond capacity and require significant modification. The last column of Table 10 above shows the form of mitigation that is likely to be required.

6.24 The development scenario is also expected to result in significant increases in traffic on Ford Road and its junctions with Woodways, roads to Dinton and Ford, and Bishopstone Road; as well as the A418/ Portway Road junction. Further work will need to be undertaken to consider traffic impacts on these and other junctions.

6.25 The most problematic junction is the A418 / A4129 junction on the Thame Bypass with the modelling showing significant queues forming in all 2033 scenarios. This junction is forecast to have over 5000 vehicles an hour in 2033 without the development, which would inevitably increase the queues and delays further. The results of the modelling at this junction without and with the development is shown on Table 11 below.

Table 11: Results at A418 / A4129 Junction (Thame)

Junction		LOS	Max RFC	Queue in Vehicles
Do Minimum (ie No Development)	AM	F	1.54	310

	PM	F	2.05	1078
With Development	AM	F	1.72	710
	PM	F	2.48	1524

- 6.26 Table 12 shows that the ratios of flow to capacity and queues increases at the junction with the development. We have sought to identify potential mitigation at this junction which at least enables it to operate at a level similar to the situation without the development. This has required widening on each arm of the junction and modifications to the central island. However more substantial improvements could well be required, in particular taking account of development planned at other locations including Thame and Aylesbury. Further investigation will be needed to take account of impacts of development here and at other locations, including in Aylesbury, on the capacity of A418 junctions.
- 6.27 In all other cases keeping the junctions as a simple priority junctions would not work due to the high volumes of traffic on the minor arms conflicting with existing major road traffic. Where mitigation is required our initial proposal is for roundabouts which would be more in keeping with the rural nature of the area. At the Thame Road / Station Road junction signalization may be acceptable but this has not currently been assessed.
- 6.28 In all cases where mitigation is proposed land would be required outside of the highway boundary. In addition Station Road between Thame Road and Station Road requires widening to normal standards which would also be outside of the highway boundary. The layouts we have tested through the initial analysis are shown in Appendix A. They will require refinement and optimization so should only be considered indicative and have been generated in order to enable a costing exercise to be undertaken.
- 6.29 Through our initial analysis we have tested the proposed mitigation with the following results shown on Table 12 below.

Table 12: Junction Modelling Results with Mitigation

		Mitigation	LOS	Max RFC	Queue
Station Rd / New Settlement	AM	New junction modelled as a 3 arm roundabout with a dedicated left turn lane out of the settlement	C	0.88	7
	PM		B	0.71	3
Aston Rd / Stanbridge Rd	AM	A 3arm roundabout	C	0.79	4
	PM		A	0.59	2
Thame Rd / Station Rd	AM	A 4 arm roundabout with a dedicated left turn lane out of the settlement	B	0.77	4
	PM		A	0.61	2
Aylesbury Rd / Station Rd	AM	A 3arm roundabout	B	0.70	3
	PM		A	0.56	2

Aylesbury Rd / Thame Rd	AM	A 3arm roundabout	C	0.87	6
	PM		D	0.91	9
A418 / A4129	AM	Widened entries and flares	F	1.40	191
	PM		F	1.99	1118

6.30 The above shows that with the junctions considered converted from priority junctions to roundabouts could potentially work satisfactorily with the proposed mitigation subject to further detailed interrogation. The exception to this is the A418/ A4129 junction where the mitigation results in the junction performing in line with the situation without the development, but more detailed consideration of future performance and potential mitigation options is required.

Preliminary Costs of Junction Improvements

6.31 We have undertaken a broad estimation of costs and this summarised on Table 13. Costs exclude land and works required for utility diversions.

Table 13: Preliminary Costs £m

	Mitigation	Costs £m
Station Rd / New Settlement	A 3arm roundabout with a dedicated left turn lane out of the settlement	£1.54
Aston Rd / Stanbridge Rd	A 3arm roundabout	£1.4
Thame Rd / Station Rd	A 4 arm roundabout with a dedicated left turn lane out of the settlement	£1.85
Aylesbury Rd / Station Rd	A 3arm roundabout	£1.4
Aylesbury Rd / Thame Rd	A 3arm roundabout	£1.4
A418 / A4129	This requires widening on each arm and works to the central island. There will be high cost associated with working with live traffic	£1.5
Total		£9.1m

6.32 This initial assessment indicates that there are evident costs associated with highways improvements required to support development at Haddenham, but the aggregate cost of these could potentially be supported given the scale of development envisaged. This however will need to be reviewed taking account of further analysis, including in respect of the A418/ A4129 junction in particular. Furthermore consideration will also need to be given to wider transport impacts beyond these immediate junctions including impacts to performance of the network east of Haddenham, including on the A418 into Aylesbury.

6.33 In respect of utilities, a new development of up to 6,000 new dwellings is likely to require substantial new infrastructure, however utilities provides are required to deliver infrastructure to support development. Further interrogation will be required alongside masterplanning work.

7 MOVING FORWARDS

- 7.1 The analysis in this report indicates that there are a number of potential locations which could accommodate strategic development in Aylesbury Vale, away from the main settlements (Aylesbury, Buckingham, Milton Keynes). This report has identified 11 potential candidate locations, and identifies two stronger candidates for consideration through the Vale of Aylesbury Local Plan (VALP): Haddeham and Winslow.
- 7.2 For each of the two candidate locations, there are options to deliver growth through extensions to the existing settlement or through standalone development of a new “garden village” which is separate from the existing settlement but would be linked to it. Both locations are situated close the A-road network; and benefit from a current or planned rail station.
- 7.3 Of the two locations, there is not clear evidence at this stage to rule out or prioritise either at this stage: there are benefits and disbenefits to each. Haddenham relates more strongly to higher-value markets and unmet housing needs in Districts to the south; to the M40. Its rail connection to London is strong, and it is envisaged that this could potentially support higher delivery rates relative to Winslow. It could also potentially support a stronger employment offer, given its location, supporting provision of greater local employment opportunities.
- 7.4 In contrast, Winslow has a stronger range of existing services and facilities including secondary education provision; and access to a large range of employment centres by rail within 30 minutes. It is at a greater distance from existing major growth locations (and thus less influenced in market terms by these).
- 7.5 It would seem sensible to undertake further work to interrogate both potential growth locations through the SA process and potentially concept masterplanning work, infrastructure analysis and community consultation. In particular local community input in considering potential growth locations will be important in ensuring deliverability. The VALP consultation provides an opportunity for this.
- 7.6 We have sought to set out below the immediate next steps in investigating the potential for strategic development; and then given thought to wider issues relating to the pace of development which could be supported (including the scale within the plan period to 2033); the delivery model and how infrastructure can be supported/ funded.

Next Steps in Interrogating Growth Potential

- 7.7 There are two important components to considering further development potential: technical assessments, and community and stakeholder engagement. Initial engagement will be undertaken through consultation on the emerging Vale of Aylesbury Local Plan. This may inform review of elements of this report.

- 7.8 Moving forwards, GL Hearn considers that a masterplanning process (for one or both locations) needs to be progressed which considers potential growth options, informed by further technical work and engagement with the local community.
- 7.9 This would need to be supported by technical studies/ analysis considering:
- Landownership
 - Transport Assessment
 - Utilities Infrastructure Assessments
 - Phase 1 Habitats Survey
 - Flood Risk Assessment
 - Desktop Ground Investigations
 - Employment Potential Study
 - Social Infrastructure Assessment
 - Green Infrastructure Assessment
- 7.10 Progression of transport and utilities assessments, and landownership should in particular be taken forward as a priority. The transport analysis should consider, taking account of other growth proposed within the plan, what infrastructure is required to support this strategic growth, the technical feasibility and cost of this. Engagement with utilities providers should assess specific requirements for reinforcement or upgrading of existing infrastructure and how this could feed into providers' asset management plans.
- 7.11 A masterplanning process would consider potential development locations and the land use mix (informed by technical studies above), including appropriate locations for housing; employment additional social infrastructure and services; and green infrastructure. Technical analysis regarding ecology, landscape, flood risk, landownership and ground conditions would be needed to inform this.
- 7.12 Concept masterplanning could consider alternative options for the scale and locations of development, and the associated impact and benefits of each. This would then be subject to refinement through community and stakeholder engagement, and as appropriate further technical analysis. This includes through engagement with local communities, as well as statutory consultees. This can inform the preferred option taken forwards through the Local Plan process.
- 7.13 Further engagement will also be necessary with service providers as options are developed and refined. This includes with Buckinghamshire County Council, as the highways and education authority, and with utilities providers (electricity, gas, water supply and waste water) in understanding existing infrastructure; capacity assessment for the existing network; and options, costs and timeframes for reinforcement of existing infrastructure and/or delivery of additional infrastructure.

Scale and Pace of Development

7.14 There is inevitably a lead-in time to deliver strategic development, in respect of:

- Establishing the planning policy framework;
- Preparing and submitting planning applications;
- Agreeing the funding and delivery of infrastructure;
- Discharging pre-commencement conditions;
- Upfront infrastructure delivery.

Planning Policy

7.15 To bring forward strategic development will require a policy within the Vale of Aylesbury Local Plan (VALP) to support development; but is also likely to require a more specific local policy framework to support major growth – such as through preparation of an Area Action Plan or Masterplan/ Development Brief adopted as a Supplementary Planning Document (SPD). The former provides a stronger policy framework, as a Development Plan Document, but is potentially more costly and time consuming to prepare. The latter is potentially quicker, but would carry less weight in planning decisions. It would seem reasonable to expect at least a 1.5 – 2 year lead-in time to establish this; and thus a detailed policy framework could at best be expected to be in place by mid 2017 at the same time as the adoption of the VALP (or shortly thereafter).

7.16 Depending on the delivery model, it might then be appropriate for an outline planning application to be submitted for the strategic development; or through use of a Local Development Order (LDO) to establish the principles for development.

Lead-In Times to Delivery

7.17 Given the potential timeframes for the subsequent preparation of detailed planning applications and discharge of conditions, GL Hearn would envisage that completions of new development would be unlikely to be achieved on sites not already identified/ allocated (such as in existing neighbourhood plans) prior to 2021.

7.18 This assumes that work in putting in place a policy framework to support planning applications is progressed alongside the VALP and is in place by 2017/18, with planning applications submitted shortly thereafter.

Pace of Delivery

- 7.19 It is important that at a strategic growth location, delivery is achieved at pace. This will be critical to supporting upfront investment in infrastructure; to creating a new community; and to the viability of the overall development.
- 7.20 GL Hearn considers that a new development location could achieve at best 300 – 400 home per annum in the initial years of delivery. This in itself would be challenging and would require a number of different housebuilders to be involved, with different start points (given typical 50-80 units per developer currently); but would also require a range of bodies to be delivering homes.
- 7.21 GL Hearn consider that the typical development model for large strategic sites/ urban extensions whereby a strategic developer obtains an outline consent and sells serviced plots to housebuilders is unlikely to deliver more than 250 dwellings per annum. This is influenced by the pace at which homes might sell and developers' expected sales values and takes account of delivery rates for comparator large schemes in recent years. To achieve higher rates of delivery, consideration should be given to a broader range of delivery agents contributing to housing delivery including:
- Small and medium-sized housebuilders, as well as the larger firms;
 - Direct commissioning of housing by Government/ HCA from construction firms;
 - Self- and custom-build development through provision of serviced plots;
 - The Council itself to take a more proactive role in delivering new homes, such as through a Local Housing Company or other form of Special Purpose Vehicle.
- 7.22 By in effect broadening both the range of organisations which are building homes, and the potential customers which are being targeted, higher overall completion rates can be achieved.

Funding Investment in Key Infrastructure

- 7.23 A key consideration in the feasibility of delivering a new settlement is how infrastructure necessary to support development will be funded and delivered. Delivery of 4,500+ homes on predominantly agricultural land will result in a significant value uplift, which can support infrastructure investment. However it is likely that development will not be able to pay for all of the investment in infrastructure necessary. A range of funding sources will need to be brought together. These include:
- Developer contributions;
 - Public Funding streams;
 - Private investment or hybrid (PFI/ PPP);
 - Other sources, including voluntary sector.
- 7.24 The funding landscape for investment in infrastructure has continued to change and evolve over time; and there is no reason to indicate that it will not continue to do so.

- 7.25 Delivery of new towns in the past has been supported by Central Government funding. The model has varied over time, but for many dedicated Development Corporations were created through primary legislation which delivered both development and infrastructure, funded through loans from the Government. This was supplemented by ad hoc subsidies and other sources of income. This financial model of “closed loop investment” was extremely successful and was a direct legacy of the Garden Cities movement. In many New Towns, the land assets which are retained in public ownership continue to provide a source of revenue today.
- 7.26 In recent years, the funding landscape is somewhat different, with major growth delivered principally by private developers. In this model, the private sector developer takes on the risk and is responsible for financing the delivery of development and infrastructure. In many cases in practice this works either through a consortium approach, or by a strategic developer delivering key infrastructure and selling serviced plots to housebuilders or commercial developers. Infrastructure investment is delivered either direct by the developer or by infrastructure providers. This is controlled by Section 106 agreements. The agreement identifies what contributions the developer will make to infrastructure delivery (direct or financial), and when these will be delivered or paid within the overall development programme. With this delivery model, much of the uplift in land value is not captured for investment in infrastructure.
- 7.27 This was a key issue identified in Lord Taylor’s *Garden Villages* report , with consideration of the importance of capturing the uplift in land value to deliver major development. His recommendation was that Government updates the New Towns Act to allow the designation of new garden villages, by Councils as opposed to Central Government; with provision for land to be acquired through the designation of new settlements with compensation offered to landowners/ householders not at 50% above existing use value. Government has committed to update the New Towns Act to achieve this (albeit that the timing of this is currently uncertain).
- 7.28 While development contributes to the delivery of infrastructure, “mainsteam” public sector funding always plays an important role. Both the education authority and health authority for instance have capital spending budgets, as do utilities providers.
- 7.29 This form of funding is often supplemented by other area-based funding, particularly in areas where significant development is expected to occur. Funding opportunities include:
- Local Growth Fund
 - National Affordable Housing Programme
 - Home Building Fund
 - Free Schools Programme
 - Tailored funding and support through Government through Garden Villages/ Towns Initiative
 - Other Transport Capital Funding Programmes (Road/ Rail etc.)

- Starter Homes Fund

- 7.30 The prospect of a new settlement is likely not currently on the ‘funding radar’ for many of these agencies and infrastructure providers. Should the Council seek to progress the proposal for delivery of a new settlement, it will be necessary to engage with and seek the support of these various agencies (over a considerable period of time). It will be necessary to work with them to embed the proposal within their future investment/ asset management strategies. It will be important to engage early on with the County Council and utilities providers in particular to inform their business planning.
- 7.31 Regardless of specific funding opportunities, we can be clear that “mainstream resources” through funding for local government, basic needs funding for education or asset management planning of utilities providers will likely play an important part of infrastructure investment (much as they have looking back over the decades). However this does not mean that there will not be hard choices to make further down the line, identifying relative priorities; and taking account of the competing policy influences on development costs – affordable housing, S106 contributions to other infrastructure, sustainability standards, densities etc.

Transport Funding

- 7.32 Funding for transport schemes includes Integrated Transport Block grant for capital projects included within Local Transport Plans (LTPs), Department for Transport (DfT) funding for major schemes and Route Investment Plans on the Rail Network. There are also a number of Public Private Partnership Models which have progressed specific investment projects (including for toll roads).

Utilities Funding

- 7.33 Funding for capital investment in utilities infrastructure is currently guided by providers’ Asset Management Plans (AMPs). Utilities providers submit AMPs to their respective regulators for forthcoming 5-year time periods identifying capital funding projects. A funding settlement is then negotiated.
- 7.34 Given the lead in times for delivery of a new settlement, it may well be possible to secure funding for key utilities investment by this mechanism. There is however a risk associated with delivery timescales. These issues will warrant further investigation and discussions with utilities providers moving forward. There are alternative and interim solutions, such as the private ‘stop gap’ funding.
- 7.35 This is more relevant to some types of infrastructure, notably water/ waste water, than others. For some types of utilities infrastructure, notably gas, utilities companies will undertake the necessary upfront works in order to secure the growth in their customer base. In most cases, developers will

be responsible for 'connection charges.' We would expect that developer contributions would also play a large role in funding undergrounding of power lines if required.

Social Infrastructure

- 7.36 Some capital funding for investment in health and education, such as through the Free Schools Programme. The District and County Councils both hold and manage significant community facilities. While each have capital investment programmes, we would expect large capital projects to remain quite reliant on developer contributions. The same is likely to be true for green infrastructure.

Developer Contributions

- 7.37 Developer contributions are likely to play a significant role in funding investment in transport, social/community, and green infrastructure. This would be through either the Community Infrastructure Levy, Section 106 negotiations or other mechanisms (should the national policy framework evolve).
- 7.38 A key ambition of CIL is to achieve greater consistency in funding from development to support infrastructure investment. It aims to make the system more transparent and equitable, and would likely increase the range of development schemes which make contributions towards infrastructure investment. It also addresses the link between specific development schemes and infrastructure projects, allowing pooling of contributions on an area basis and financial efficiencies. A key advantage of such a fund is it may also allow local authorities to borrow against future receipts (prudential borrowing).
- 7.39 While the financial efficiencies associated with CIL are important, and may provide a means of forward funding infrastructure, there are some issues associated with applying it to development of this scale. The economics of development of different scales varies substantially. A CIL Charging Schedule applied at a local authority level will have to take account of these differential economics, with the risk that it gets reduced to a 'lowest common denominator' and it must be set at a level which is payable in most cases.
- 7.40 While we have not looked at the economics in detail, looking at existing tariff schemes elsewhere, the Milton Keynes tariff which is applicable only to large strategic development sites, is set at a level significantly above those that apply to a range of sizes and types of development.
- 7.41 For a new settlement, a bespoke and detailed assessment of development viability will be required given the scale and complexity of development proposed and delivery timescales. Over the course of delivery the market, funding streams and development economics may all change significantly. This will require further investigation moving forward. This should inform assessment of the potential for use of a tariff model, or for a more bespoke negotiated approach. Regardless of which

is taken forward, it will be necessary to be clear early on as to what the Councils expectations are regarding developer contributions, and to provide appropriate periodic review mechanisms.

Ringmaster

7.42 This is a model for funding key infrastructure investment, whereby a key regeneration agency such as the Homes and Communities Agency or Special Purpose/ Delivery Vehicle forward funds infrastructure investment which is then recouped over time as development is delivered, through developer contributions.

Other Sources of Funding

7.43 Other potential sources of funding contributions might include:

- National Affordable Homes Programme
- Starter Homes Fund
- Private Rented Sector Guarantee
- Home Building Fund
- Local Growth Fund
- Local Council Tax and Business Rate Contributions
- Tax Increment Finance (borrowing against the above)
- New Homes Bonus

Governance and Delivery Model

7.44 GL Hearn's initial assessment is that a standard delivery model whereby a strategic developer promotes development, obtains planning consent and sells land to national and regional housebuilders will not deliver the pace of housing delivery necessary to create a successful new community, or deliver 4,500 homes before 2033.

7.45 An alternative delivery model should be considered, whereby the Council/ public sector takes a more active role in bringing forward the development using powers through an updated New Towns Act.

7.46 The Council should consider establishing a publically-led, arms length Local Delivery Vehicle (LDV) to drive forward growth, or using and adapting the existing Buckinghamshire Advantage structure to drive forward the growth location. This constitution of this would need to be considered, but could include:

- Lead masterplanner
- Delivery partners – developers and registered providers
- Representatives of the District and County Councils, community and businesses.

- 7.47 The form and structure of the delivery vehicle would require detailed consideration, including whether it has planning powers; owns land; commissions/ delivers infrastructure and potential development itself; and whether it retains ownership of land.
- 7.48 There is a clear opportunity for the Council and other public bodies to invest in a development vehicle, sharing some of the risks associated with development but also a proportion of the potential profit should there be an appetite to do so.

Appendices (available as separate documents)

APPENDIX A: LANDSCAPE ASSESSMENT

APPENDIX B: OPPORTUNITIES AND CONSTRAINTS PLANS

APPENDIX C: WINSLOW OPTIONS ASSESSMENT

APPENDIX D: WINSLOW INITIAL JUNCTION MODELLING

APPENDIX E: HADDENHAM OPTIONS ASSESSMENT

APPENDIX F: HADDENHAM INITIAL JUNCTION MODELLING