

Strategic Environmental Assessment of the D-AGT1 South Aylesbury Supplementary Planning Document

Environmental Report

August 2022



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY



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Strategic Environmental Assessment of the South Aylesbury Masterplan Supplementary Planning Document

Environmental Report

LC-718	Document Control Box
Client	Buckinghamshire Council
Report Title	Strategic Environmental Assessment of the South Aylesbury Masterplan Supplementary Planning Document: Environmental Report
Filename	<u>LC-718_Aylesbury_SPD_EnvironmentalReport_9_010822LB.docx</u>
Date	August 2022
Author	EC & LB
Reviewed	RI
Approved	ND

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Client comments can be sent to Lepus using the following address.

Eagle Tower,

Cheltenham

Gloucestershire

GL50 1TA

Telephone: 01242 525222

E-mail: enquiries@lepusconsulting.com

www.lepusconsulting.com

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Acronyms

AA	Appropriate Assessment
AGT	Aylesbury Garden Town
DEFRA	Department for Environment, Food and Rural Affairs
ER	Environmental Report
GI	Green Infrastructure
HRA	Habitats Regulations Assessment
LGS	Local Green Space
LWS	Local Wildlife Site
MHCLG	Ministry for Housing, Communities and Local Government
NP	Neighbourhood Plan
NPPF	National Planning Policy Framework
ODPM	Office of the Deputy Prime Minister
PPP	Plan, Policy and Programme
PPG	Planning Policy Guidance
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SMNP	Stoke Mandeville Neighbourhood Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SPD	Supplementary Planning Document
VALP	Vale of Aylesbury Local Plan
WCS	Water Cycle Study

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Non-Technical Summary

What is Strategic Environmental Assessment?

- N1. Lepus Consulting has prepared this Strategic Environmental Assessment (SEA) Environmental Report (ER) of the South Aylesbury Supplementary Planning Document (SPD) on behalf of Buckinghamshire Council. SEA is the process which informs and influences the preparation of the SPD to help optimise the environmental performance of the plan.

Purpose and content of the Environmental Report

- N2. This SEA document is known as an Environmental Report and has been prepared to meet the requirements of the SEA Regulations¹.
- N3. The ER has been prepared to comply with procedural aspects of the SEA Regulations, whereby *“the requirement for environmental assessment also applies to other plans and programmes which set the framework for future development consent of projects if they are the subject of a determination under regulation 9(1) that the plan or programme is likely to have significant environmental effects (regulation 5(4); Article 3.4 of the Directive)”*.
- N4. This ER accompanies the latest version of the Draft SPD (dated 28 July 2022)² and follows on from the SEA Screening Report (October 2021) and Scoping Report (December 2021).
- N5. The purpose of this ER is to:
- Identify, describe and evaluate the likely significant effect of the SPD on biodiversity, flora and fauna; climate change; cultural heritage; landscape and; water resources.
 - Suggest measures by which any negative effects could be mitigated;
 - If appropriate, make recommendations to improve the environmental performance of the SPD; and
 - Provide an effective opportunity for statutory consultees, interested parties and the public to offer views on any aspect of the SEA process that has been carried out to date.

¹ The Environmental Assessment of Plans and Programmes Regulations 2004. Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Date Accessed: 16/05/22]

² Vale of Aylesbury Local Plan: Aylesbury Garden Town – 1 Supplementary Planning Document Draft for Consultation, 28 July 2022

N6. The Environmental Report contains:

- An outline of the contents and main objectives of the SPD and its relationship with other relevant plans, programmes and strategies.
- Details of the methodology used to prepare the assessment;
- Identification, description and evaluation of reasonable alternatives to the SPD;
- The likely significant environmental effects of the SPD; and
- The next steps for the SEA.

The Scope of the SEA

N7. An SEA screening exercise conducted by Lepus³ concluded that the SPD would be likely to lead to significant environmental effects on the topics of biodiversity, climate change, cultural heritage, and landscape, with the addition of the water resources topic which has been screened in at this ER stage following comments received from the Environment Agency on the SEA Scoping Report (see **Table 3.1**).

N8. The Scoping Report⁴ also identified relevant policies, plans, and programmes (PPPs) and baseline information relating to environmental issues in the area. The scoping document set out an SEA Framework, against which the SPD was to be assessed. The SEA Framework included indicators and decision-making criteria for the relevant SEA Objectives however an updated SEA Framework is within Appendix A which includes the water resources topic in lieu of comments made by the Environment Agency regarding the SEA Scoping report. The SEA screening and scoping documents have been consulted on with the statutory consultees (Natural England, Environment Agency and Historic England).

Assessment of reasonable alternatives

N9. The assessment of reasonable alternatives refers to the plan-making stage of exploring options, where the SEA process is required to identify, describe and evaluate reasonable alternatives. The Council started the plan-making process of the SPD with the identification of potential options regarding development of Site D-AGT1. A total of three reasonable alternatives were considered, relating to minor differences in the layout of the proposed development, as follows:

- D-AGT1 South Aylesbury Draft SPD proposal;
- Stoke Mandeville Neighbourhood Plan (SMNP) draft masterplan proposal; and
- Broadway Malyan outline planning application masterplan proposal.

³ Lepus Consulting (2022) Strategic Environmental Assessment of the South Aylesbury Supplementary Planning Document – SEA Screening Document.

⁴ Ibid

- N10. Each reasonable alternative was appraised in the SEA Reasonable Alternatives Assessment (see **Chapter 5** and **Appendix C**).
- N11. The assessment of reasonable alternatives concluded that potential negative impacts would be expected to some extent in relation to the development of D-AGT1, regarding the following SEA topics: biodiversity, flora and fauna; climate change; cultural heritage; and landscape. It was not possible to draw conclusions about whether there would be likely significant effects on the water topic.
- **Biodiversity** – For all options, a precautionary minor negative impact was identified with respect to potential adverse impacts associated with recreational pressure to the Chilterns Beechwoods SAC.
 - **Climate change** – Under any of the options, the introduction of at least 1,000 new dwellings would be likely to cause an increase in energy consumption, pollution, and traffic during both the construction and occupancy stages, to some extent, resulting in a minor negative impact on climate change.
 - **Cultural heritage** – Each of the options are likely to perform similarly at the strategic scale, in relation to cultural heritage, where potential minor negative impacts are associated with Site D-AGT1's coincidence with and close proximity to Grade II Listed Buildings and archeological remains.
 - **Landscape** – All options would be expected to have positive impacts in terms of promoting access to multi-functional greenspace, through various GI provisions including amenity greenspace alongside the proposed residential development. However, due to the nature and scale of the proposed development at Site D-AGT1, potential minor negative impacts on the landscape including views from the Chilterns AONB and urban sprawl/coalescence, could not be ruled out.
 - **Water** – All options would be expected to make positive contributions towards the protection and enhancement of river corridors and seek to protect water quality, and set out requirements for SuDS schemes. However, the potential implications of the development on water resources and water supply was uncertain.

Preferred Option

- N12. The Council are pursuing the approach as set out in the outline masterplan of Site D-AGT1, based on the various findings and documents comprising their evidence base and the adopted Buckinghamshire Local Plan⁵ policies. The preferred approach which is proposed within the SPD has been appraised in **Chapter 6**.

⁵ Buckinghamshire County Council (2021) Adopted Vale of Aylesbury Local Plan. Available at: <https://www.buckinghamshire.gov.uk/planning-and-building-control/planning-policy/local-development-plans/> [Date Accessed: 05/05/22]

Assessment of Significant Effects

N13. The assessment of the preferred option found that likely significant effects are attributed to the following SEA topics: biodiversity, flora and fauna; climate change; cultural heritage; landscape; and water. Potential negative effects were identified in relation to:

- **Biodiversity, flora and fauna** – primarily related to potential adverse recreational impacts on the Chiltern Beechwoods SAC;
- **Climate change** – due to an increase in energy consumption, pollution, and traffic during both the construction and occupancy stages associated with the development of at least 1,000 dwellings;
- **Cultural heritage** – in particular, impacts on the setting of surrounding Listed Buildings and areas of archaeological remains;
- **Landscape** – including potential for minor adverse effects on views from the Chilterns AONB and urbanisation of the countryside; and
- **Water** – in terms of potential effects on water supply/resources and water quality arising from the proposed development of at least 1,000 dwellings.

Mitigation

N14. To meet the requirements of the SEA Regulations, the ER must provide details of the mitigation measures envisaged to help prevent, reduce and offset any significant adverse impacts on the environment which could occur due to the implementation of the SPD, as well as monitoring recommendations.

N15. The SPD would be anticipated to result in a range of positive effects including the opportunity to provide new homes, community facilities and pedestrian routes for the enjoyment of current and future residents, as well as having the potential to deliver enhanced multi-functional GI and biodiversity net gain.

N16. As there is the potential for adverse impacts on the environment following the implementation of the SPD, the mitigation considerations are presented within **Table 6.2**.

N17. Various provisions proposed within the SPD and policies outlined in VALP would help to ensure that future development takes into account the surrounding built and natural environment, historic assets and landscape character. These measures include:

- **Biodiversity, flora and fauna** – in accordance with the VALP policies and the findings of the emerging HRA, development is expected to seek to retain existing vegetation, deliver biodiversity net gain, and incorporate new GI and Suitable Alternative Natural Greenspace (SANG) that is compliant with Natural England's Accessible Natural Green Space Standards (ANGSt) and Strategic Access Management and Monitoring (SAMM) contributions in line with the emerging Ashridge Estate Mitigation Strategy.

- **Climate change** – various policies and provisions seek to ensure that the development promotes energy efficiency, incorporates open spaces and GI, and reduces reliance on private car use.
- **Cultural heritage** – in accordance with VALP policies, the development should seek to conserve heritage assets in a manner appropriate to their significance.
- **Landscape** – the VALP policies require provision of a landscape buffer between the new development and the existing settlement of Stoke Mandeville, as well as various provisions to ensure the conservation and enhancement of the natural, built and historic environment of the site.
- **Water** – the SPD seeks to ensure Sustainable Drainage Systems and measures such as rainwater harvesting are incorporated within the site to help manage surface water, in addition to provision of a proposed buffer alongside the watercourse to help enhance its ecological status and reduce flood risk.

Conclusions

N18. Following consideration of mitigation measures, as well as the outputs of the emerging HRA and other evidence base documents, a residual adverse effect on biodiversity and landscape have been ruled out. Potential residual adverse effects have been identified in relation to:

- **Climate change** – it is not expected that the identified adverse impacts from GHG emissions associated with the large scale of proposed development would be fully mitigated and so a residual adverse impact would remain, to some extent;
- **Cultural heritage** – it is likely that the setting of the Grade II Listed Building ‘Magpie Cottage’ would be altered to some extent by the proposed development; and
- **Water** – at this stage, the potential for increased pressure on demand for water resources and wastewater treatment cannot be ruled out.

Recommendations

N19. Several recommendations have been made in this SEA report (see **Table 6.4**) to potentially enhance the sustainability of the proposals within the SPD or to provide further clarity regarding certain issues.

Next Steps

N20. This ER will be subject to consultation with the statutory consultation bodies of Natural England, Historic England and the Environment Agency, and the public.

1 Introduction

1.1 Preface

- 1.1.1 Lepus Consulting is conducting a Strategic Environmental Assessment (SEA) of the South Aylesbury Supplementary Planning Document (SPD) on behalf of Buckinghamshire Council.
- 1.1.2 This document constitutes the SEA for the SPD and represents an Environmental Report (ER) as per the requirements of the SEA Regulations⁶. This represents Stage D of the SEA process according to the Planning Practice Guidance (PPG) on strategic environmental assessment and sustainability appraisal⁷.
- 1.1.3 SEA is the process of assessing plans and programmes to *“provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment”*⁸.
- 1.1.4 SEA is also one of the ‘tests of soundness’ that examiners use to evaluate the soundness of planning documents.
- 1.1.5 A key objective of SEA is to promote a high level of environmental protection. The SEA is an objective assessment that helps to inform the identification of preferred options and the best way of implementing these with regard to environmental factors, but it does not necessarily dictate what these will be.

⁶ The Environmental Assessment of Plans and Programmes Regulations 2004. Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Date Accessed: 16/05/22]

⁷ MHCLG (2015) Strategic environmental assessment and sustainability appraisal: Strategic environmental assessment requirements for neighbourhood plans. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal#strategic-environmental-assessment-requirements-for-neighbourhood-plans> [Date Accessed: 18/05/22]

⁸ EU Council (2001) Directive 2001/42/EC. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN> [Date Accessed: 18/05/22]

1.2 The SEA process

- 1.2.1 The European Union Directive 2001/42/EC or 'SEA Directive' applies to a wide range of public plans and programmes on land use, energy, waste, agriculture, transport etc. (see Article 3(2) of the Directive for other plan or programme types). The SEA procedure can be summarised as follows: an ER is prepared in which the likely significant effects on the environment and the reasonable alternatives of the proposed plan or programme are identified. The public and the relevant environmental authorities are informed and consulted on the draft plan or programme and the ER prepared. Further details on methodology are explained in **Chapter 4**.
- 1.2.2 The SEA Directive has been transposed into English law by the SEA Regulations. Detailed guidance on these regulations can be found in the ODPM's publication 'A Practical Guide to the SEA Directive'⁹.
- 1.2.3 Under the requirements of the SEA Regulations, specific types of plans that set the framework for the future development consent of projects, must be subject to an environmental assessment.
- 1.2.4 Where an SPD could have significant environmental effects, it may fall within the scope of the SEA Regulations and so would require an SEA. One of the basic conditions that will be tested by the independent examiner is whether the making of the SPD is compatible with European obligations.
- 1.2.5 Whether an SPD requires a SEA, and (if so) the level of detail needed, will depend on what is proposed in the SPD. An SEA may be required, for example, where:
- The Plan area contains sensitive natural or heritage assets that may be affected by the proposals in the plan; or
 - The Plan may have environmental effects that have not already been considered and dealt with through an SA of higher order plans.

1.3 Best practice guidance

- 1.3.1 A range of documents have been utilised in preparing the SEA of the South Aylesbury SPD:
- European Commission (2004) Implementation of Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment¹⁰;

⁹ Office of the Deputy Prime Minister (2005) A Practical Guide to the Strategic Environmental Assessment Directive. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf [Date Accessed: 18/05/22]

¹⁰ European Union (2001) SEA Guidance, Available at: http://ec.europa.eu/environment/archives/eia/pdf/030923_sea_guidance.pdf [Date Accessed: 18/05/22]

- Office of Deputy Prime Minister (2005) A Practical Guide to the SEA Directive¹¹;
- Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework (NPPF)¹²;
- Department for Levelling Up, Housing and Communities & Ministry of Housing, Communities and Local Government (2021) Planning Practice Guidance (PPG)¹³; and
- Royal Town Planning Institute (2018) Strategic Environmental Assessment, Improving the effectiveness and efficiency of SEA/SA for land use plans¹⁴.

1.4 The South Aylesbury Supplementary Planning Document

1.4.1 This ER regards the proposed content of the SPD, as per the information presented in the latest version of the SPD provided to Lepus, titled 'Vale of Aylesbury Local Plan: Aylesbury Garden Town – 1 Supplementary Planning Document Draft for Consultation' dated 28 July 2022.

1.4.2 The South Aylesbury Masterplan SPD will provide a framework for the development of the proposed Site D-AGT1, 'South Aylesbury', allocated as a strategic site within the adopted Vale of Aylesbury Local Plan (VALP)¹⁵. Site D-AGT1 is a strategic site which contributes to the delivery of Aylesbury Garden Town (AGT)¹⁶, which is the focus for the majority of Aylesbury's growth.

1.4.3 This strategic allocation is implemented in the VALP through Policy D-AGT1 and is proposed to include the development of:

- At least 1,000 dwellings;
- One primary school;
- Multi-functional green infrastructure;
- South-East Aylesbury East Link Road (A413 to B4443 Lower Road);
- Local Centre; and
- Cycling and walking links.

¹¹ Office of the Deputy Prime Minister (2005) A Practical Guide to the Strategic Environmental Assessment Directive. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf [Date Accessed: 18/05/22]

¹² Ministry of Housing, Communities & Local Government (2021) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Date Accessed: 18/05/22]

¹³ Department for Levelling up, Housing and Communities, Ministry of Housing, Communities & Local Government (2021) Planning Practice Guidance Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> [Date Accessed: 18/05/22]

¹⁴ RTPI (2018) Strategic Environmental Assessment. Available at: <https://www.rtpi.org.uk/research/2018/january/strategic-environmental-assessment-seasa-for-land-use-plans/> [Date Accessed: 18/05/22]

¹⁵ Buckinghamshire Council (2021) Vale of Aylesbury Local Plan (VALP) 2013 – 2033. Available at: https://buckinghamshire-qov-uk.s3.amazonaws.com/documents/Aylesbury_local_plan_L46JWaT.pdf [Date Accessed: 17/05/22]

¹⁶ Aylesbury Garden Town. Available at: <https://www.aylesburygardentown.co.uk/> [Date Accessed: 18/05/22]

- 1.4.4 The SPD takes the proposals from the VALP and outlines the aspirations of the area as well as responses and key issues that will influence the new development. The SPD will be essential to ensure a co-ordinated and comprehensive approach to development, and to guide phasing of the site.
- 1.4.5 The SPD expands upon Policy D-AGT 1 to provide a framework to help guide the preparation and assessment of future planning applications within the site. The SPD will form a material consideration which will be taken into account by the Buckinghamshire Council when determining any future planning applications for the area.
- 1.4.6 **Table 1.1** presents the criteria for development at D-AGT1 as proposed within the adopted VALP¹⁷.

Table 1.1: D-AGT1 South Aylesbury Site Allocation criteria as presented in the VALP

D-AGT1 Information	Site Details
Site Reference	AGT1
Site Name	South Aylesbury
Size (hectares)	Approximately 95 ha
Completions and expected time of delivery	39 homes delivered up to 2020, 161 homes to be delivered 2020-2025 and 800 homes to be delivered 2025-2033.
Allocated for (key development and land use requirements)	<ul style="list-style-type: none"> • 1,000 dwellings • One primary school • Multi-functional green infrastructure • Aylesbury South East Link Road (A413 to B4443 Lower Road) • Local centre • Cycling and walking links
Site-specific Requirements	<p>Development proposals must be accompanied by the information required in the council's Local Validation List and comply with all other relevant policies in the Plan, including the principles of development for Aylesbury Garden Town and the Masterplan SPD to be prepared for the site. In addition, proposals should comply with the following criteria:</p> <ol style="list-style-type: none"> a. Provision of land for at least 1,000 dwellings at a density that takes account of the adjacent settlement character and identity, integrates new development with the existing built area of Aylesbury and responds positively to the best characteristics of the surrounding area b. Provision of 5 Gypsy and Traveller pitches c. Safeguarding the land required for the delivery of a dual carriageway distributor road (the SEALR) between B4443 Lower Road and A413 Wendover Road to cross the railway line, with sufficient land for associated works including but not limited to earthworks, drainage and structures d. Provision of new access points into the development parcels from the B4443 Lower Road and A413 Wendover Road. Access from the South East Aylesbury

¹⁷ Buckinghamshire Council (2021) Vale of Aylesbury Local Plan (VALP) 2013 – 2033: Adopted Plan. Available at: <https://www.buckinghamshire.gov.uk/planning-and-building-control/planning-policy/local-development-plans/> [Date Accessed: 06/05/22]

D-AGT1 Information	Site Details
	<p>Link Road (SEALR) will not be supported unless it can be demonstrated that this would leave parcels of land inaccessible and incapable of development.</p> <ul style="list-style-type: none"> e. Provision for public transport into the town and to surrounding areas f. Existing vegetation should be retained where practicable, including existing woodlands and hedgerows. Existing public rights of way need to be retained and integrated into the development within safe and secure environments as part of a wider network of sustainable routes, to directly and appropriately link the site with surrounding communities and facilities g. Proposals must retain and enhance existing habitats where practicable, including the creation of linkages with surrounding wildlife assets and green corridors linking development with the wider countryside and surrounding communities. h. Provision and management of 50% green infrastructure to link to other new development areas and the wider countryside as part of a high quality built and semi-natural environment i. The development should be designed using a landscape-led approach including consideration of the long-distance views of the AONB and the field pattern and landscape features on the site j. Detailed modelling will be required to confirm 1 in 20, 100 and 1,000 year extents and 1 in 100 year plus climate change extents on the ordinary watercourse (see SFRA Level 2) k. Surface water modelling should be undertaken to define the level of surface water risk and the risk areas/flow paths. Climate change should be modelled using the +40% allowance (February 2016) for rainfall intensity. A surface water drainage strategy should ensure that the development does not increase flood risk elsewhere. Opportunity to mitigate against potential surface water flooding of Stoke Mandeville Hospital l. Risk of overtopping or breach of the Aylesbury Arm (Grand Union Canal) should be modelled m. The development should be designed using a sequential approach. Flood Zones 2 and 3, and 3a plus climate change (subject to a detailed flood risk assessment) should be preserved as green space as shown in the policies map as the area of 'not built development'. Built development should be restricted to Flood Zone 1 n. Drainage designs should 'design for exceedance' and accommodate existing surface water flow routes, with development located outside surface water flood areas o. Provision of buffer between the new development and Stoke Mandeville to maintain the setting and individual identity of the settlement of Stoke Mandeville p. provision of land, buildings and car parking for a combined primary school, including playing field provision, and a contribution to secondary school provision q. Provision of land, buildings and car parking for a new local centre, including retail r. Provision of financial contributions towards off-site health facilities s. Provision of community buildings, including temporary buildings if necessary t. Provision of and contribution to infrastructure as appropriate. u. Retention of the Grade II listed Magpie Cottage within an appropriate setting

D-AGT1 Information	Site Details
Implementation Approach	Development of the Aylesbury South Strategic Site Allocation will come forward towards the latter end of the Plan period, and only once an AGT1 Masterplan SPD for the allocation has been prepared and adopted by the council. Proposals for development within the Aylesbury South Strategic Site Allocation will be expected to demonstrate how they positively contribute to the achievement of the SPD and the Aylesbury Garden Town Principles as set out in Policy D1. Any development on this site should be in accordance with the overarching policies and principles for the development of Aylesbury Garden Town.

1.4.7 The SPD incorporates the requirements of various plans and policies, including:

- National Planning Policy Framework (NPPF) (July 2021);
- Planning Practice Guidance (June 2021);
- Natural Environment and Rural Communities Act (2006): Biodiversity Duty (sections 40 and 41 of the Natural Environment and Rural Communities Act 2006);
- HM Government's 'A Green Future: Our 25 Year Plan to Improve the Environment' (2018);
- Environment Act (2021);
- Biodiversity Action Plan: Forward to 2030 for Buckinghamshire and Milton Keynes;
- Vision and Principles for the Improvement of Green Infrastructure in Buckinghamshire and Milton Keynes (2018) and the accompanying Green Infrastructure opportunities mapping (2018);
- Buckinghamshire Green Infrastructure Delivery Plan (2013) and Strategy (2009);
- Transport schemes under Policy T2 (Supporting and Protecting Transport Schemes) as within the adopted VALP (2013-2033);
- Infrastructure provision under Policy S5 of the adopted VALP;
- Policies D2 and D4 which regard residential development delivery as within the adopted VALP (2013-2033); and
- Other relevant Local Plan policies.

1.4.8 The plans and policies set out above require that development proposals protect the natural environment including internationally, nationally and locally designated biodiversity sites, and seek to ensure that ecological networks and Green Infrastructure (GI) assets are protected and enhanced, alongside delivering the required growth. The plans and policies above will help form decisions on site development for Site D-AGT1 with considerations to the local area.

1.4.9 The site boundary for Site D-AGT1 is shown in **Figure 1.1**. The site comprises approximately 95ha of predominantly undeveloped land and lies to the south east of Aylesbury.

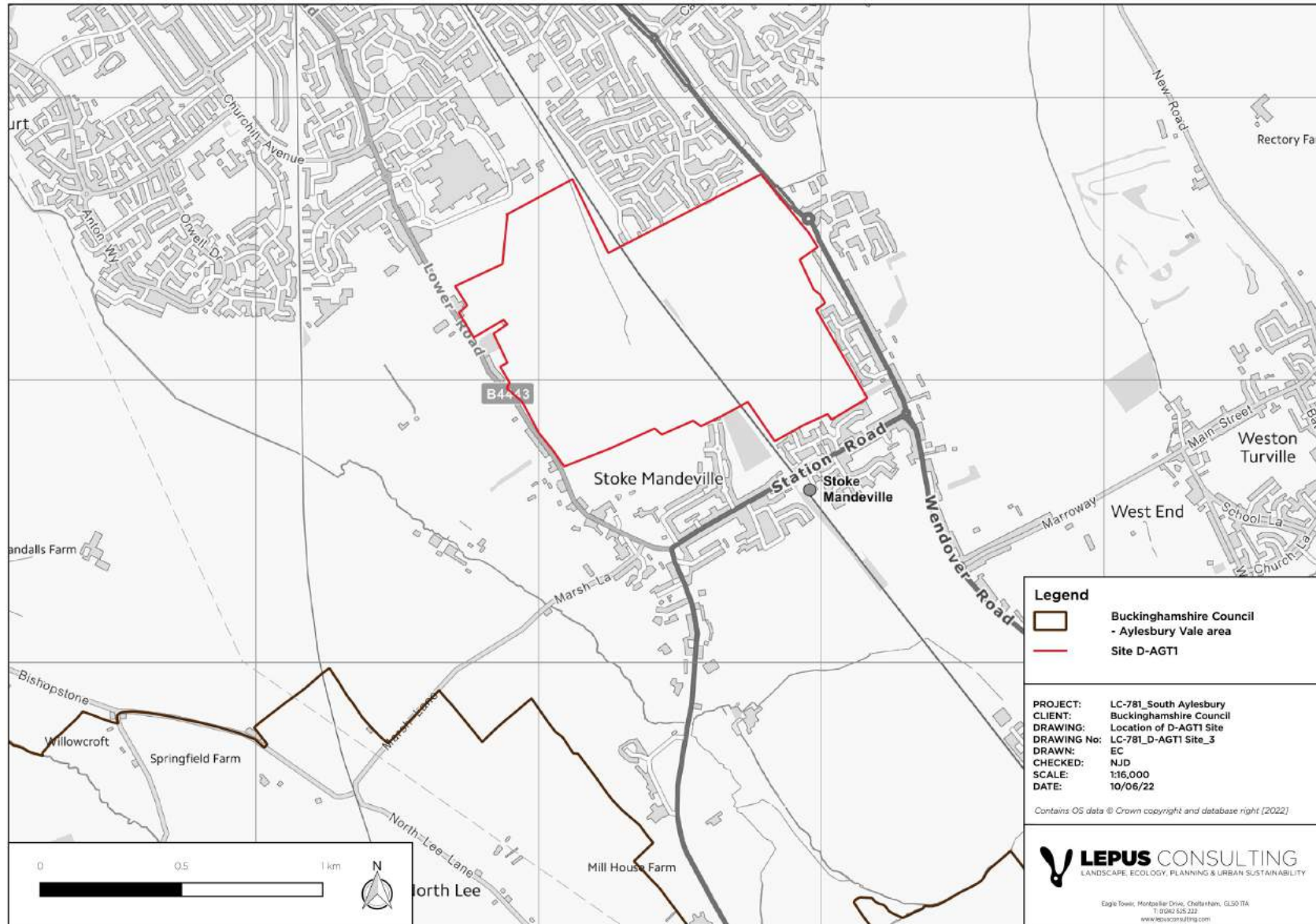


Figure 1.1: Proposed Site D-AGT1 boundary

1.5 Purpose of this report

- 1.5.1 This report has been prepared to help inform the preparation of the South Aylesbury SPD. It is not the role of the SEA to decide which is the most appropriate form of the SPD, but instead to provide an assessment of the Plan and any reasonable alternatives which should be given due consideration in the decision-making process and identify best performing options.
- 1.5.2 Regulation 12 of the SEA Regulations¹⁸ states that the Environmental Report “*shall identify, describe and evaluate the likely significant effects of the environment of – (a) implementing the plan or programme; and (b) reasonable alternatives taking into account the objectives and geographical scope of the plan or programme*”.

1.6 Meeting the requirements of the SEA Regulations

- 1.6.1 **Table 1.2** includes the requirements of the SEA Regulations and shows where they have been met within the SEA process.

Table 1.2: Requirements of the SEA Regulations¹⁹

Requirement for Environmental Report	Location
Include an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes.	See the SEA Scoping Report, and Environmental Report: Section 1.4. and Appendix B.
Include information on the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	See the SEA Scoping Report, and Environmental Report: Chapter 3.
Describe the environmental characteristics of areas likely to be significantly affected.	See the SEA Scoping Report, and Environmental Report: Chapters 5 and 6.
Specify any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.	See the SEA Scoping Report, and Environmental Report: Chapters 3, 5 and 6.
Consider the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	See the SEA Scoping Report, and Environmental Report: Chapters 5 and 6 and Appendix B.

¹⁸ The Environmental Assessment of Plans and Programmes Regulations 2004. Regulation 12. Available at: <https://www.legislation.gov.uk/uksi/2004/1633/regulation/12/made> [Date Accessed: 16/05/22]

¹⁹ Strategic Environmental Assessment Regulations requirements checklist. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/580073/Strategic_Environmental_Assessment_Regulations_requirements_checklist.pdf [Date Accessed: 11/05/22]

Requirement for Environmental Report	Location
Assess the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, and cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.	Environmental Report: Chapter 5, 6, and Appendix C.
Give details of the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment as a result of implementing the plan or programme.	Environmental Report: Chapter 6.
Give an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Environmental Report: Chapter 5 and section 6.1.
Include a description of the measures envisaged concerning monitoring.	Environmental Report Chapter 7.
Include a non-technical summary of the information provided.	Environmental Report: Non-Technical Summary

2 SEA Screening

2.1 Screening

2.1.1 The SEA Screening report²⁰ (October 2021) reviewed the extent to which the D-AGT1 South Aylesbury SPD could potentially result in significant effects on the environment.

2.1.2 Schedule 2 of the SEA Regulations²¹ requires that the SEA process should consider: *“the likely significant effects on the environment, ... on issues such as – (a) biodiversity; (b) population; (c) human health; (d) fauna; (e) flora; (f) soil; (g) water; (h) air; (i) climatic factors; (j) material assets; (k) cultural heritage, including architectural and archaeological heritage; (l) landscape; and (m) the inter-relationship between the issues referred to in sub-paragraphs (a) to (l)”*.

2.1.3 The Screening Report concluded that the D-AGT1 South Aylesbury SPD would be likely to have a significant environmental impact on the surrounding area and would therefore require an SEA in relation to:

- Biodiversity;
- Climate Change;
- Cultural Heritage; and
- Landscape.

2.2 Consultation

2.2.1 The SEA Screening Report was subject to consultation with the statutory consultees of the Environment Agency, Natural England and Historic England. The responses received are summarised in **Table 2.1**.

Table 2.1: Statutory consultee responses to the SEA Screening Report

Consultee	Summary of Consultee Response
Environment Agency	N/A – No comment received.
Natural England (17 th September 2021)	<i>“In our review of the Aylesbury South Masterplan SPD SEA and HRA Screenings we note that a draft SPD has not yet been made public. On the basis of the material supplied Natural England agree with the assessment that the proposal will cause significant effects and therefore a full SEA is required”</i> .
Historic England (17 th September 2021)	<i>“Thank you for consulting Historic England on the screening for strategic environmental assessment (SEA) of the AGT1 Aylesbury South Masterplan SPD. We agree with the conclusion of the report that SEA is required”</i> .

²⁰ Lepus Consulting (2021) Strategic Environmental Assessment of the Aylesbury South Masterplan Supplementary Planning Document - SEA Screening Document [Date Accessed: 09/02/22]

²¹ SEA Regulations. Available at: <https://www.legislation.gov.uk/uksi/2004/1633/schedule/1/made> [Date Accessed: 30/05/22]

2.3 Habitats Regulations Assessment

- 2.3.1 In 2021, a Habitats Regulations Assessment (HRA) Screening of the D-AGT1 South Aylesbury SPD was undertaken by Buckinghamshire Council²² as required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended)²³.
- 2.3.2 The HRA Screening concluded that an Appropriate Assessment (AA) is required due to the potential for likely significant effects associated with increased recreational pressure on Chiltern Beechwoods SAC, as a result of the development of Site D-AGT1 outlined within the SPD.
- 2.3.3 The HRA Screening found that there was a need for a greater level of detail on mitigation (such as details on the type, location and management of GI) to be evaluated in HRA terms. As these details were not available at the time of the VALP HRA, it summarised that an Appropriate Assessment should be carried out for the scope/draft SPD to evaluate if the mitigation details proposed are adequate or if there would be adverse impacts on the integrity of the Chiltern Beechwoods SAC, either alone or in combination with other plans and projects, as a result of the SPD.
- 2.3.4 The emerging HRA, including Appropriate Assessment, has informed potential likely significant effects on the Chiltern Beechwoods SAC, as outlined within **Chapter 6**, and required mitigation.

²² Buckinghamshire Council. October 2021. Aylesbury South (D-AGT 1) Masterplan Supplementary Planning Document. Habitats Regulations Assessment Screening Statement – Final Outcome

²³ The Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents> as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573> [Date Accessed: 19/05/22]

3 SEA Scoping

3.1 Introduction

3.1.1 The scoping stage represents Stage B of the SEA process, according to the strategic environmental assessment requirements²⁴. Scoping is the process of deciding the scope and level of detail of an SEA.

3.1.2 The purpose of Scoping is to set the criteria for assessment (including the SEA Framework), establish the environmental baseline and include a review of relevant policies, plans and programmes (referred to as PPPs). The scoping process can also help to identify key environmental issues relevant to the Plan area, highlighting areas of potential concern.

3.1.3 The SEA Framework is presented in **Appendix A**. Drawing on the information gained from the earlier SEA screening exercise which concluded that the SPD would be likely to lead to a significant environmental impact in relation to the following topics: biodiversity, flora and fauna; climate change; cultural heritage; and landscape. After consideration of the consultation response submitted by the Environment Agency (see **Table 3.1**), it was determined that the topic of water resources should also be addressed in the environmental report. The scope of the SEA is therefore focused on these five objectives.

3.2 Policies, plans and programmes review

3.2.1 A plan or programme may be influenced in various ways by other plans or programmes, or by external environmental protection objectives such as those laid down in policies or legislation.

3.2.2 The scoping exercise presented an analysis of the objectives of the key PPPs (including legislation) that are relevant to the SPD and the SEA assessment process, presented by their geographic relevance, from international to local level. The PPP Review is presented in **Appendix B**.

3.3 Baseline data and key sustainability issues

3.3.1 A key part of the scoping process is the collection of baseline data. The purpose of this exercise is to help identify key issues and opportunities facing the area which might be addressed by the AGT1 South Aylesbury SPD, and to provide an evidence base for the assessment.

3.3.2 Paragraph 016 of the PPG²⁵ states that “*baseline information provides the basis against which to assess the likely effects of alternative proposals in the plan*”.

²⁴ MHCLG (2015) Strategic environmental assessment and sustainability appraisal: Sustainability appraisal requirements for local plans and spatial development strategies. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Date Accessed: 06/05/22]

²⁵ MHCLG (2015) Strategic environmental assessment and sustainability appraisal: Strategic environmental assessment requirements for neighbourhood plans. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal#strategic-environmental-assessment-requirements-for-neighbourhood-plans> [Date Accessed: 09/02/22]

3.3.3 The scoping exercise provided a review of existing environmental conditions within the Plan area and their likely evolution in absence of the D-AGT1 South Aylesbury SPD. **Table 3.1** provides an outline of the identified key sustainability issues and future evolution without the SPD, building on those identified in the Scoping Report.

Table 3.1: Key sustainability issues and evolution without the SPD

SEA Objective	Key Sustainability Issues	Future Evolution of the Baseline without the SPD
Biodiversity, flora and fauna	<ul style="list-style-type: none"> Avoiding damage through recreational pressures, promoting restoration and/or enhancement of protected site Chiltern Beechwoods SAC in line with the NPPF. 	<ul style="list-style-type: none"> Sites designated for their national and international biodiversity and/or geodiversity value will continue to benefit from legislative protection. Without the SPD, it may be difficult to help ensure that development is not of a type, scale and location that could potentially have a major adverse impact on a biodiversity and geodiversity designation or on the functioning ecological network. It would be likely that biodiversity features would be somewhat protected by policies set out the VALP and within the emerging SMNP, however, it is uncertain to what extent.
Climate change	<ul style="list-style-type: none"> Development of the proposed link road between the A143 and B4443 could potentially lead to adverse impacts on local air quality and climate change mitigation through the release of pollutants, including GHGs. Introducing at least 1,000 new dwellings will increase energy consumption, pollution and traffic within the local area. 	<ul style="list-style-type: none"> In the absence of the SPD, future planning applications for the land which encompasses Site D-AGT1 would be required to adhere to local and national policies regarding production of emissions and air pollution, in addition to policies within the emerging SMNP when adopted. The extent to which pollution could result in absence of the SPD is uncertain, and would depend on any future planning applications which would be required to fulfil the housing need. For example, the proposed link road between the A143 and B4443 may not be developed and therefore housing development applications on the land encompassing Site D-AGT1, or land proposed elsewhere, may increase local traffic on current road systems and associated air pollution.
Historic Environment	<ul style="list-style-type: none"> Development within Site D-AGT1 could potentially affect the significance of heritage assets within and outside the site, both designated and non-designated. Archaeological remains, including that which has not yet been discovered, are 	<ul style="list-style-type: none"> In the absence of the SPD, the character and setting of designated and non-designated heritage assets is unlikely to change significantly, primarily due to policies set out in the VALP and the emerging SMNP.

SEA Objective	Key Sustainability Issues	Future Evolution of the Baseline without the SPD
	<p>present in the area and could potentially be affected by development proposals of the Aylesbury South Masterplan SPD.</p> <ul style="list-style-type: none"> A desk-based assessment and, subject to the results of the assessment, field evaluation will be required to inform the development of the masterplan SPD and ensure relevant baseline information is available for the SEA. 	<ul style="list-style-type: none"> The extent to which the accessibility, local awareness or setting of heritage assets may be enhanced over time without the SPD is uncertain. In the absence of the SPD, it is unlikely that archaeological assets (both discovered and undiscovered) will be harmed or threatened.
<p>Landscape</p>	<ul style="list-style-type: none"> The SPD seeks to develop Site D-AGT1 which is located 2.3km from The Chilterns AONB, separated by the settlement Stoke Mandeville. Development outside the AONB should seek to conserve and enhance its setting. Development proposed within the SPD could potentially alter views for users of The Round Aylesbury Walk long distance path and other PRowWs within the site. Assessments from Aylesbury’s Landscape Character Assessment should also be considered. 	<ul style="list-style-type: none"> The Chilterns AONB will continue to be proactively and effectively managed by the Chilterns Conservation Board and, in the absence of the SPD, would be likely to be conserved and enhanced through the Chilterns AONB Management Plan 2019 – 2024 and any future management plans that are published. In the absence of the SPD, housing needs would likely be met through planning applications and it is uncertain whether distinctive and long-distance countryside views within and of the site, and of any alternative site, would be altered, which may include views experienced by local residents and users of the local PRowW network. The SPD outlines green corridors which may protect these routes to some extent. Policies set out in the Vale of Aylesbury Development Plan would be likely to protect some views but may not be specific to Stoke Mandeville and the Chilterns AONB, however without proactive management to conserve landscape features and open space, the quality of these views could potentially deteriorate over time. In the absence of the SPD, the local distinctive and rural landscape character would be unlikely to be altered. Although housing need would still be required to be met, key landscape features would be likely to be preserved in the absence of the SPD through policies set out in the VALP and the emerging SMNP.

SEA Objective	Key Sustainability Issues	Future Evolution of the Baseline without the SPD
Water	<ul style="list-style-type: none"> The Aylesbury Vale Water Cycle Study (WCS)²⁶ identifies Stoke Mandeville Parish (within which the proposed Site D-AGT1 is located) as being of 'Amber' Water Resource Capacity and Local Distribution System Impact, meaning infrastructure and/or treatment upgrades are required to serve the proposed growth. Development proposed within the SPD could potentially place further pressure on water resources. The Council will need to give close consideration to the impacts of development proposals on wastewater treatment in the local area, and the capacity of treatment works, as well as the consequences of new wastewater generation for local water quality and the ecological status of ground and surface water bodies. Development proposed within the SPD may reduce the amount of rainfall that is intercepted by vegetation on the ground. Even very small-scale development can have detrimental implications for surface water run-off. 	<ul style="list-style-type: none"> In the absence of the SPD, planned enhancements to the water resources systems, as identified in the WCS and set out in the VALP, would be expected to continue which may be sufficient to ensure development can be accommodated in the short term. In the longer term, the WCS identifies greater uncertainty regarding potential need to invest in additional capacity to accommodate growth in the Stoke Mandeville Parish area as all the proposed development comes forward. Water abstraction, consumption and treatment in the local area will continue to be managed by the Environment Agency and water companies through the RBMP, WRMP and CAMS in line with the EU Water Framework Directive.

3.4 The SEA Framework

3.4.1 The purpose of the SEA Framework is to provide a way of ensuring that the SPD considers the sustainability needs of Site D-AGT1 and enables the environmental effects of the SPD to be described, analysed and compared.

3.4.2 The SEA Framework consists of objectives, which are measurable using indicators. There is no statutory basis for setting objectives, but they are a recognised way of considering the environmental effects of a Plan and comparing alternatives. The SEA Objectives are used to provide the basis against which effects of the SPD are assessed.

²⁶ JBA Consulting (2017) Aylesbury Vale District Council Water Cycle Study: Phase 1. Final Report, February 2017. Available at: https://www.aylesburyvaldc.gov.uk/sites/default/files/page_downloads/Aylesbury%20Vale%20Water%20Cycle%20Study%20Phase%201%20%28Final%29%20v2.0.pdf [Date Accessed: 30/05/22]

3.4.3 The SEA Framework for the AGT1 South Aylesbury SPD is focused on biodiversity, climate change, cultural heritage, landscape and water resources for the reasons specified within the scoping report²⁷ and the Environment Agency’s comments on the ‘water’ topic (see **Table 3.1**). The SEA Framework has been developed through the PPP review, the baseline data collection and the key issues identified for the Plan area. The SEA topics identified in Schedule 2 of the SEA Regulations²⁸ were one of the key determinants when considering the SEA Objectives to be used for appraisal purposes. The updated SEA Framework, reflecting consultee comments within **Table 3.1**, is presented in **Appendix A**.

3.5 Consultation

3.5.1 Consultation responses on the SEA Scoping Report are summarised within **Table 3.1**.

Table 3.2: Statutory consultee responses to the SEA Scoping Report

Consultee	Summary of Consultee Response
Natural England (5 th January 2022)	<p>SEA Objectives</p> <p>Biodiversity, flora and fauna: <i>“We advise that this object should include “restore”. In addition, sub-objectives could be included to:</i></p> <ul style="list-style-type: none"> <i>protect and enhance habitats and wildlife corridors; and</i> <i>ensure current ecological networks are not compromised, and future improvements in habitat connectivity are not prejudiced”</i> <p><i>“There should be consideration of geodiversity conservation in terms of any geological sites and features in the wider environment. A strategic approach for networks of biodiversity should support a similar approach for green infrastructure. Planning policies and decisions should secure wider environmental gains, as outlined in the NPPF (paragraphs 8, 73, 104, 120,174, 175 and 180).”</i></p> <p>Landscape: <i>“We advise that this objective includes ‘restore.’”</i></p> <p>Indicators and targets</p> <p><i>“Whilst it is not Natural England’s role to prescribe what indicators should be adopted, the following indicators may be appropriate.</i></p> <p><i>Green infrastructure:</i></p> <ul style="list-style-type: none"> <i>To work towards ensuring that the population have access to a natural greenspace within 400 metres of their home.</i> <i>Length of greenways constructed</i> <i>Hectares of accessible open space per 1000 population”</i>
Environment Agency (5 th January 2022)	<p><i>“We have reviewed section 2 and Table 2.1 of the Scoping document and whilst we agree with the topics that have been scoped in in regard to our interests – Biodiversity and Climate change, we do not agree that the topic ‘Water’ should be scoped out.</i></p> <p><i>With the scale of the proposal, it is not clear what the impact of the development will be on water resources in this area when considering issues such as waste water/sewage discharge and water use. The scoping document has not provided information on this to justify why and if water should</i></p>

²⁷ Lepus Consulting (2022) Strategic Environmental Assessment of the South Aylesbury Supplementary Planning Document – SEA Scoping Document.

²⁸ Biodiversity flora and fauna; Population; Human health; Soil; Water; Air; Climatic factors; Material assets; Cultural heritage (including architectural and archaeological heritage); and Landscape.

Consultee	Summary of Consultee Response
	<p><i>be scoped out. We require further information on this matter before we can provide further comments.”</i></p> <p><i>“Appendix A provides details on the SEA objectives in relation to the scoped in topics and the related decision making criteria and target indicators. We however note that some of the target indicators do not clearly match with some of the identified decision making criteria. For example, it is not clear what the target indicators are for the following as listed below;</i></p> <ul style="list-style-type: none"> <i>• Will it protect and enhance the water environment? [under Biodiversity, Flora and Fauna:]</i> <i>• Will it reduce flood risk? [under climate change]</i> <i>• Will it conserve water resources? [under climate change]</i> <p><i>We ask that that the indicators are modified to reflect the criteria listed in Appendix A with the aim of addressing the SEA objectives.”</i></p>
<p>Historic England (21st January 2022)</p>	<p><i>“We have some concerns about how this scoping report addresses the need for the SPD to be supported by appropriate heritage evidence. Heritage assessments will be needed to determine an appropriate setting for Magpie Cottage (and any affected listed buildings outside the site) and the significance and extent of archaeology. In the absence of such assessments, the effects of the SPD could be anywhere from significantly negative to positive, but the SEA would have to default to unknown, which would be unfortunate, given that heritage assessments will be needed later. The scoping report does not seem to deal with this issue.</i></p> <p><i>We therefore recommend that the heritage assessments that will be required to support the SPD are done early enough so that they may also inform the SEA. This is discussed further in the baseline information section below. We also address a number of more minor issues.”</i></p> <p>Introductory paragraphs</p> <p><i>“In addition to impacts on setting, there could also be direct impacts on heritage assets, in on particular below-ground archaeology. Therefore, we would expect all aspects of cultural heritage to be considered, not just those relating to setting.”</i></p> <p>Relevant Plans, Policies and Programmes</p> <p><i>“In general, the scoping report identifies the relevant PPP at international and national level. However, local PPP appear to be absent.</i></p> <p><i>In the summary of PPP at 5.1.1, while there is mention of “unknown and undesignated resources”, we recommend adding “particularly archaeological remains” after “unknown and undesignated resources”, in order to clarify meaning. We would also suggest changing “resources” to “heritage assets”, as this is the term the NPPF uses.”</i></p> <p>Baseline Information</p> <p><i>“We suggest paragraphs 5.2.2 and 5.2.3 are revisited. In 5.2.3, it states “By applying Policy BE1 of the VALP, the proposed development at Site D-AGT1 should ensure the “retention of the Grade II listed Magpie Cottage within an appropriate setting”, however the SPD could usefully add further clarity to this statement to ensure that the cottage and its setting are protected and enhanced in line with its historic significance.</i></p> <p><i>Our reading of the above is that it could be interpreted to mean that no positive actions need to be taken in order for BE1 to be applied. This may or may not have been the intent, but we suggest it is rewritten to clarify that this is not the case, for the reasons below.</i></p> <p><i>The intent of Policy BE1 is clear (retention of Magpie Cottage and an appropriate setting). The question for the SPD is how to apply Policy BE1. In our view, this would require firstly the heritage significance of the cottage to be assessed, so that an appropriate setting can be determined. A heritage assessment would serve for this. This would then be used to inform the layout (and other aspects) of development in the SPD itself so as to avoid harm to heritage and enhance it where</i></p>

Consultee	Summary of Consultee Response
	<p><i>appropriate. Therefore, it is also not strictly correct to say that the SPD “could usefully add further clarity”: this suggests an optional endeavour, whereas in fact, Policy BE1 directs this to be done. This is an essential requirement for the SPD.</i></p> <p><i>Given that one of the main functions of a masterplan is to determine the layout of the development, further information on archaeology will needed before the SPD is developed, in order to identify any areas of archaeological interest and their significance, which would in turn inform the layout of the development. This is especially true given that there are three archaeological notification areas within the site.</i></p> <p><i>To support the SPD, a desk-based assessment should be carried out. Trial trenching may also be required, subject to the results of the desk-based assessment. This cannot be delayed until planning application stage, as this information is needed in order to inform the development of the masterplan SPD. Furthermore, if this information is not available for purposes of the SEA, important baseline information will also be missing, and this SEA will have to give a score of unknown for effects on cultural heritage. This is far from ideal, given that this information will be required for the development SPD itself. We therefore recommend that heritage assessments are done early enough so that they can also inform the SEA.</i></p> <p><i>In addition, despite there being no explicit reference to heritage assets outside the site area in Policy BE1, the SEA still needs to consider them. Para 5.2.2 identifies “several Grade II Listed Buildings within and surrounding the settlement of Stoke Mandeville, including a cluster along the B4443 running north to Aylesbury, which represents the western edge of the proposed scheme. This includes the ‘Stoke Cottage’, ‘Lone Ash’ and ‘Bell Cottage and Tudor Cottage’.” These all need to be included in the assessment.</i></p> <p><i>We recommend that the Historic Environment Record for Bucks is consulted instead of the Archaeology Data Service.”</i></p> <p>Key Sustainable Issues</p> <p><i>“5.1 The first sentence should be amended to “Development within Site D-AGT1 could potentially alter affect the setting significance of historic heritage assets within and outside the site, both designated and non-designated. This would be more consistent with the terminology and policy intent of the NPPF.</i></p> <p><i>After the second bullet, a further sentence should be added: “A desk-based assessment and, subject to the results of the DBA, field evaluation will be required to inform the development of the masterplan SPD and ensure relevant baseline information is available for the SEA.”</i></p> <p>SEA Objectives</p> <p><i>“The SEA objective for cultural heritage covers the key issues in broad terms. Due to the archaeological potential of the site, we recommend a further sentence, such as: “For archaeology this means conserving archaeological remains where practicable, particularly remains of national importance, through masterplan design, to mitigate through archaeological investigation, recording and publication where conservation is not practicable.””</i></p>

4 Methodology

4.1 Approach to assessment

4.1.1 The assessment process has used the SEA Framework, the review of plans, programmes and policies, and the baseline (including various mapped data sources) to assess each policy. Assessments have been undertaken using this empirical evidence and, to a lesser extent, expert judgement. The precautionary principle²⁹ is applied to all assessments.

4.2 Appraisal process

4.2.1 When evaluating significance of effect, the SEA draws on criteria in Schedule 1 of the SEA Regulations, derived from Annex II of the SEA Directive (see **Box 4.1**), and identifies a significance value using the guide in **Table 4.1**.

Box 4.1: Schedule 1 of the SEA Regulations³⁰

Criteria for determining the likely significance of effects (Schedule 1 of the SEA Regulations)

1. The characteristics of plans and programmes, having regard, in particular, to:

- (a) the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources;
- (b) the degree to which the plan or programme influences other plans and programmes including those in a hierarchy;
- (c) the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;
- (d) environmental problems relevant to the plan or programme; and
- (e) the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste management or water protection).

2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:

- (a) the probability, duration, frequency and reversibility of the effects;
- (b) the cumulative nature of the effects;
- (c) the transboundary nature of the effects;
- (d) the risks to human health or the environment (e.g. due to accidents);
- (e) the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);
- (f) the value and vulnerability of the area likely to be affected due to:
 - i. special natural characteristics or cultural heritage;
 - ii. exceeded environmental quality standards or limit values;
 - iii. intensive land-use; and
- (g) the effects on areas or landscapes which have a recognised national, Community or international protection status.

²⁹ Judgment of 7 September 2004 in case C-127/02 (Waddenzee, paragraph 45).

³⁰ The Environmental Assessment of Plans and Programmes Regulations 2004. Available at: <https://www.legislation.gov.uk/ukxi/2004/1633/contents/made> [Date Accessed: 30/05/22]

Table 4.1: Guide to scoring significant effects

Significance	Definition (not necessarily exhaustive)
Major Negative --	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Permanently degrade, diminish or destroy the integrity of a quality receptor, such as a feature of international, national or regional importance; • Cause a very high-quality receptor to be permanently diminished; • Be unable to be entirely mitigated; • Be discordant with the existing setting; and/or • Contribute to a cumulative significant effect.
Minor Negative -	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Not quite fit into the existing location or with existing receptor qualities; and/or • Affect undesignated yet recognised local receptors.
Negligible 0	Either no impacts are anticipated, or any impacts are anticipated to be negligible.
Uncertain +/-	It is entirely uncertain whether impacts would be positive or adverse.
Minor Positive +	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Improve undesignated yet recognised receptor qualities at the local scale; • Fit into, or with, the existing location and existing receptor qualities; and/or • Enable the restoration of valued characteristic features.
Major Positive ++	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Enhance and redefine the location in a positive manner, making a contribution at a national or international scale; • Restore valued receptors which were degraded through previous uses; and/or • Improve one or more key elements/features/characteristics of a receptor with recognised quality such as a specific international, national or regional designation.

4.2.2 The results of the assessment will apply a single value from **Table 4.1** to the corresponding SEA Objective for each reasonable alternative or any other part of the plan which is being assessed as part of the SEA. Justification for the likely impact and corresponding score is presented in an accompanying narrative assessment text.

4.3 Significance

4.3.1 Where an environmental impact has been identified, the significance of effect has been categorised as minor or major. **Table 4.1** lists the significance matrix and explains the terms used. The nature of the significant effect can be either beneficial or adverse depending on the proposal.

4.3.2 Each reasonable alternative that has been assessed in this report has been scored according to its predicted performance in relation to the SEA Objectives in the Framework, using the values in **Table 4.1**.

4.3.3 It is important to note that the scores are high level indicators. The narrative assessment text which details the key decision-making criteria behind each awarded score should always be read alongside the score. Assumptions and limitations to the scores are presented in **Table 4.4** and **sections 4.7** and **4.8**.

4.3.4 Significance of effect is a combination of impact sensitivity and magnitude.

4.4 Impact sensitivity

4.4.1 Impact sensitivity is measured through consideration as to how the receiving environment will be impacted by a Plan proposal. This includes assessment of the value and vulnerability of the area, whether environmental quality standards will be exceeded, and if impacts will affect, for example, designated areas.

4.4.2 A guide to the range of scales used in the impact significance matrix is presented in **Table 4.2**. For most receptors, sensitivity increases with geographic scale.

Table 4.2: Geographic scales of receptors

Scale	Typical criteria
International/ national	Designations that have an international aspect or consideration of transboundary effects beyond national boundaries. This applies to effects and designations/receptors that have a national or international dimension.
Regional	This includes the regional and sub-regional scale, including county-wide level and regional areas.
Local	This is the district and neighbourhood scale.

4.5 Impact magnitude

4.5.1 Impact magnitude relates to the degree of change the receptor will experience, including the probability, duration, frequency and reversibility of the impact. Impact magnitude is determined based on the susceptibility of a receptor to the type of change that will arise, as well as the value of the affected receptor (see **Table 4.3**).

Table 4.3: Impact magnitude

Impact magnitude	Typical criteria
High	Likely total loss of or major alteration to the receptor in question; <ul style="list-style-type: none"> • Provision of a new receptor/feature; or • The impact is permanent and frequent.
Medium	Partial loss/alteration/improvement to one or more key features; or The impact is one of the following: <ul style="list-style-type: none"> • Frequent and short-term; • Frequent and reversible; • Long-term (and frequent) and reversible; • Long-term and occasional; or • Permanent and occasional.
Low	Minor loss/alteration/improvement to one or more key features of the receptor; or The impact is one of the following: <ul style="list-style-type: none"> • Reversible and short-term; • Reversible and occasional; or • Short-term and occasional.

4.6 Predicting effects

4.6.1 SEA is a tool for predicting potential significant effects. Predicting effects relies on an evidence-based approach and incorporates professional judgement. It is often not possible to state with absolute certainty whether effects will occur, as many impacts are influenced by a range of factors such as the design and the success of mitigation measures.

4.6.2 The assessments in this report are based on the best available information. Every attempt has been made to predict effects as accurately as possible.

4.6.3 SEA operates at a strategic level which uses available secondary data for the relevant SEA Objective. All reasonable alternatives are assessed in the same way using the same method. Sometimes, in the absence of more detailed information, forecasting the potential impacts of development can require making reasonable assumptions based on the best available data and trends.

4.7 Assessment assumptions

4.7.1 Assumptions have been used to help incorporate proportionality to the SEA of reasonable alternatives. In terms of published policy guidance, it is assumed that the following policies will apply to Site D-AGT1 and surrounding environments, and have been borne in mind when completing the assessment of reasonable alternatives:

- Adopted VALP 2013 – 2033 policies³¹;
- The Chilterns AONB Management Plan 2019-2024; and
- The NPPF (2021)³² and related PPG advice³³.

4.7.2 Other topic-specific assumptions have been applied to the report. These are presented in **Table 4.4**.

Table 4.4: Assumptions for the SEA Objectives

SEA Objective	Assessment Assumptions
<p>1. Biodiversity: Protect, enhance, restore and manage the flora, fauna biodiversity and geodiversity assets of the areas affected by the development of Site D-AGT1.</p>	<p>The biodiversity objective considers adverse impacts of the proposed development at a landscape-scale. It focuses on an assessment of proposed development on a network of designated and undesignated sites, wildlife corridors and individual habitats within and surrounding Site D-AGT1. Receptors include the following:</p> <p>Designated Sites:</p> <ul style="list-style-type: none"> • Habitats sites; (Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites). • Sites of Special Scientific Interest (SSSI). • National Nature Reserves (NNR). • Local Nature Reserves (LNR). • Local Wildlife Sites (LWS). • Local Geological Sites (LGS). <p>Habitats and Species:</p> <ul style="list-style-type: none"> • Ancient woodland. • Priority habitats. <p>Negative impacts would be expected where the ecological or geological designations listed above may be harmed or lost as a result of proposals. The assessment is largely based on a consideration of the proximity of a site and the attributes and qualities of the receptor in question.</p> <p>For the purposes of this assessment, impacts on priority habitats protected under the 2006 NERC Act³⁴ have been considered in the context of Natural England’s publicly available Priority Habitat Inventory database³⁵. It is acknowledged this may not reflect current local site conditions in all instances.</p>

³¹ Buckinghamshire Council (2021) Vale of Aylesbury Local Plan (VALP) 2013 – 2033. Available at: https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/Aylesbury_local_plan_L46JWaT.pdf [Date Accessed: 17/05/22]

³² Ministry of Housing, Communities & Local Government (2021) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Date Accessed: 17/05/22]

³³ Ministry of Housing, Communities & Local Government (2021) Planning Practice Guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> [Date Accessed: 17/05/22]

³⁴ Natural Environment and Rural Communities Act 2006. Available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents> [Date Accessed: 10/05/22]

³⁵ Natural England (2021) Priority Habitat Inventory (England). Available at: <https://data.gov.uk/dataset/4b6ddab7-6c0f-4407-946e-d6499f19fcde/priority-habitat-inventory-england> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
	<p>It is assumed that construction and occupation of previously undeveloped greenfield land would result in a net reduction in vegetation cover and Green Infrastructure in the Plan area. Development proposals which would be likely to result in the loss of greenfield land are therefore expected to contribute towards a cumulative loss in vegetation cover. This would also be expected to lead to greater levels of fragmentation and isolation across the wider ecological network, such as the loss of habitat stepping-stones and corridors.</p> <p>It should be noted that no detailed ecological surveys have been completed by Lepus to inform the assessments made in this report.</p> <p>It is anticipated that the Council will require detailed ecological surveys and assessments to accompany future planning applications. Such surveys will determine on a site-by-site basis the presence of Priority Species and Priority Habitats protected under the NERC Act.</p> <p>It is assumed that the loss of biodiversity assets, such as ancient woodland or an area of priority habitat, are permanent effects.</p> <p>It is assumed that mature trees and hedgerows will be retained where possible.</p> <p>Where development proposals coincide with a Habitats site, a SSSI, NNR, LNR, CWS, CGS or ancient woodland, or are adjacent to a Habitats site, SSSI or NNR, it is assumed that development would have a permanent impact on these nationally important biodiversity and geodiversity assets, and a major negative impact would be expected.</p> <p>Where development proposals coincide with priority habitats, are adjacent to an ancient woodland, LNR, LWS, are located within a SSSI IRZ³⁶ which states to “consult <i>Natural England</i>” or are located in close proximity to a Habitats site, SSSI, NNR, LNR or stand of ancient woodland, it is assumed that development would have an impact on these biodiversity assets, and a minor negative impact would be expected.</p> <p>Where a development proposal would not be anticipated to significantly impact a biodiversity asset, a negligible impact would be expected for this objective.</p> <p>Where development proposals would be anticipated to enhance biodiversity through the designation of a biodiversity site, a positive impact would be expected.</p> <p>It is assumed that development on previously undeveloped or greenfield land would result in an increase in GHG emissions due to the increase in the local population and the number of operating businesses and occupied homes.</p>
<p>2. Climate change: Mitigate and Reduce Site D-AGT1's contribution towards climate change.</p>	<p>Development proposals which would be likely to increase greenhouse gas emissions in the local area would make it more difficult for the Council to reduce the Plan area's contribution towards the causes of climate change.</p> <p>The incorporation of GI within developments presents several opportunities to mitigate climate change, for example, through providing natural cooling to combat the 'urban heat</p>

³⁶ Natural England (2022) Impact Risk Zones (IRZ) are a Geographical Information System (GIS) tool which allow a rapid initial assessment of the potential risks posed by development proposals to: SSSIs, SACs, SPAs and Ramsar sites. They define zones around each site which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts

Natural England's Impact Risk Zones for Sites of Special Scientific Interest, 03 May 2022. Available at: <https://data.gov.uk/dataset/5ae2af0c-1363-4d40-9d1a-e5a1381449f8/sss-i-impact-risk-zones> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
	<p>island' effect, reducing the effects of air pollution and providing more pleasant outdoor environments to encourage active travel^{37 38}.</p> <p>It is assumed that development on previously undeveloped or greenfield land would result in an increase in GHG emissions due to the increase in the local population and the number of operating businesses and occupied homes.</p> <p>The increase in GHG emissions caused by new developments is associated with impacts of the construction phase, the occupation and operation of homes and businesses, oil, gas and coal consumption and increases in local road transport with associated emissions. This impact is considered to be permanent and non-reversible.</p>
<p>3. Cultural Heritage: Protect, enhance and manage heritage assets, including designated and non-designated, as well as features and areas of and heritage importance.</p>	<p>Impacts on heritage assets will be largely determined by the specific layout and design of the development proposal, as well as the nature and significance of the heritage asset. There is a risk of adverse effects occurring, some of which may be unavoidable. As such, this risk has been reflected in the assessment as a negative impact where a site is in close proximity to heritage assets.</p> <p>Adverse impacts are recorded for options which have the potential to have an adverse impact on sensitive heritage designations, including Grade I, II* and II Listed Buildings, Scheduled Monuments (SM), Registered Parks and Gardens (RPG), and Conservation Areas.</p> <p>Adverse impacts on heritage assets are predominantly associated with impacts on the existing setting of the asset and the character of the local area, as well as adverse impacts on views of, or from, the asset.</p> <p>Where development proposals are not located in close proximity to any heritage asset, or the nature of development is determined not to affect the setting or character of the nearby heritage asset, a negligible impact would be expected for this objective.</p> <p>When considering any planning application that affects a Conservation Area, authorities must pay special attention to the desirability of preserving or enhancing the character or appearance³⁹. A replacement of a building that currently has a detrimental impact on a Conservation Area could potentially result in a neutral or a minor beneficial effect.</p> <p>It is anticipated that the Council will require a Heritage Statement to be prepared to accompany future planning applications, where appropriate. The Heritage Statement should describe the significance of any heritage assets affected by the proposals, including any contribution made by their settings.</p> <p>It is assumed that desk-based assessments will be required on a site-by-site basis for planning proposals which could potentially impact archaeological features (followed by field evaluation / potential trial trenching where appropriate).</p>

³⁷ TCPA (2007) The essential role of green infrastructure: eco-towns green infrastructure worksheet. Available at: <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=dd06b21d-6d41-4c4e-bec5-4f29a192f0c6> [Date Accessed: 10/05/22]

³⁸ Worcestershire County Council (2014) Green Infrastructure Framework 4: Socio-economic Benefits of Green Infrastructure. Available at: http://www.worcestershire.gov.uk/downloads/download/707/worcestershire_green_infrastructure_framework_documents [Date Accessed: 10/05/22]

³⁹ Planning (Listed Buildings and Conservation Areas) Act 1990. Available at: <https://www.legislation.gov.uk/ukpga/1990/9/section/69> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
<p>4. Landscape: Conserve, enhance, restore and manage the character and appearance of the landscape and townscape, maintaining and strengthening their distinctiveness</p>	<p>Impacts on landscape will be largely determined by the specific layout and design of development proposals, as well as the site-specific landscape circumstances. Detailed proposals for each development are uncertain at this stage of the assessment. Therefore, the nature of the potential impacts on the landscape are, to an extent, uncertain. However, there is a risk of negative effects occurring, some of which may be unavoidable. As such, this risk has been reflected in the assessment as a negative impact where a development proposal is located in close proximity to sensitive landscape receptors. The level of impact has been assessed based on the nature and value of, and proximity to, the landscape receptor in question.</p> <p>Where a development proposal would not be anticipated to impact a local or designated landscape, a negligible impact would be expected for this objective. Where the development or enhancement of green infrastructure / landscape features is proposed, which could potentially enhance the local landscape character, a minor positive impact</p> <p>It is anticipated that the Council will require developers to undertake Landscape and Visual Impact Assessments (LVIAs) to accompany any future proposals, where relevant. The LVIAs should seek to provide greater detail in relation to the landscape character of the development proposals and its surroundings, the views available towards the development, the character of those views and the sensitivity and value of the relevant landscape and visual receptors.</p> <p>Development proposals which are considered to increase the risk of future development spreading further into the wider landscape would be expected to have a minor negative impact on the landscape objective.</p> <p>Development proposals which are considered to reduce the separation between existing settlements and increase the risk of the coalescence of settlements would be expected to have a potential minor negative impact on the landscape objective.</p>
<p>5. Water: Conserve, manage, restore and enhance water quality and supply.</p>	<p>The vulnerability of groundwater to pollution is determined by the physical, chemical and biological properties of the soil and rocks, which control the ease with which an unprotected hazard can affect groundwater. Groundwater Source Protection Zones (SPZs) indicate the risk to groundwater supplies from potentially polluting activities and accidental releases of pollutants. As such, any development proposal that is located within a groundwater SPZ could potentially have an adverse impact on groundwater quality. Site D-AGT1 does not coincide with any SPZs.</p> <p>Construction activities in or near watercourses have the potential to cause pollution, impact upon the bed and banks of watercourses and impact on the quality of the water⁴⁰.</p> <p>An approximate 10m buffer zone from a watercourse should be used in which no works, clearance, storage or run-off should be permitted⁴¹. However, it is considered that</p>

⁴⁰ World Health Organisation (1996) Water Quality Monitoring - A Practical Guide to the Design and Implementation of Freshwater Quality Studies and Monitoring Programmes: Chapter 2 - Water Quality. Available at: <https://apps.who.int/iris/handle/10665/41851> [Date Accessed: 06/05/22]

⁴¹ Department of Agriculture, Environment and Rural Affairs (no date) Advice and Information for planning approval on land which is of nature conservation value. Available at: <https://www.daera-ni.gov.uk/articles/advice-and-information-planning-approval-land-which-nature-conservation-value> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
	<p>development further away than this has the potential to lead to adverse impacts such as those resulting from runoff.</p> <p>Thames Water, which covers the town of Aylesbury, is classed to be in an area of serious water stress⁴².</p> <p>It is assumed that development proposals will be in accordance with the VALP Policy I5 which requires higher water efficiency standard of 110 litres per person per day, as set out in the Building Regulations Part G⁴³.</p>

4.8 Limitations

- 4.8.1 SEA is a tool for predicting potential significant effects. Predicting effects relies on an evidence-based approach and incorporates expert judgement. It is often not possible to state with absolute certainty whether effects will occur, as many impacts are influenced by a range of factors such as the design and the success of mitigation measures. The assessments in this report are based on the best available information, including information that is publicly available. Every attempt has been made to predict effects as accurately as possible.
- 4.8.2 All data used is secondary data available from Buckinghamshire Council or freely available on the Internet. No biodiversity records search has been commissioned through the Buckinghamshire and Milton Keynes Environmental Records Centre.

⁴² Environment Agency and DEFRA (2021) Water stressed areas – 2021 classification. Available at: <https://www.gov.uk/government/publications/water-stressed-areas-2021-classification> [Date Accessed: 06/05/22]

⁴³ The Building Regulations 2010. Part G: Sanitation, hot water safety and water efficiency. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/504207/BR_PDF_AD_G_2015_with_2016_amendments.pdf [Date Accessed: 17/05/22]

5 Reasonable Alternatives

5.1 Overview

- 5.1.1 The SEA Regulations require that the SEA process considers “*reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme*” (Regulation 12) and gives “*an outline of the reasons for selecting the alternatives dealt with*” (Schedule 2).
- 5.1.2 The SEA process must record how reasonable alternatives were identified, described, and evaluated. The plan makers must identify all reasonable alternatives, providing an explanation as to their provenance and qualities that qualify them as reasonable.
- 5.1.3 The findings of the SEA can help with refining and further developing these options in an iterative and on-going way. The SEA findings do not form the sole basis for decision-making; other studies, the feasibility of the option and consultation feedback will also contribute to the decision of identifying a preferred option.
- 5.1.4 The SEA results may reveal that there is no single, best performing option. Where there is no obvious discernible difference at a strategic scale, the SEA process will record this as an outcome.

5.2 Identifying reasonable alternatives

- 5.2.1 PPG notes that ‘reasonable alternatives’ are the different realistic options considered by the plan-maker in developing the policies in its plan. It notes that the SEA process should provide conclusions on the overall sustainability of the different alternatives and that the alternatives must be realistic and deliverable⁴⁴.
- 5.2.2 Reasonable alternatives for a development could constitute:
- A) Growth alternatives for housing and employment use e.g., the total number of dwellings or employment floorspace across the development area;
 - B) Alternative site allocations for development; and
 - C) Alternative policies, including a comparison between the inclusion of policies against the ‘do nothing’ approach.
- 5.2.3 Buckinghamshire Council has identified three reasonable alternatives for evaluation in the SEA process:
- D-AGT1 South Aylesbury Draft SPD proposal;
 - Stoke Mandeville NP draft masterplan proposal (June 2021); and

⁴⁴MHCLG (2018) Planning Practice Guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance>
[Date Accessed: 21/02/22]

- Broadway Malyan outline planning application masterplan proposal.

5.2.4 It should be noted that although the Broadway Malyan planning application is considered to be a reasonable alternative, it does not cover the full extent of the SPD area and only covers the area as discussed further in **section 5.3** and shown in **Figure 5.3**.

5.2.5 Furthermore, it should be noted that the Stoke Mandeville NP reasonable alternative as discussed within this report refer to the proposals from the draft NP, prepared in June 2021, which significantly pre-date the latest version of the SPD. A new iteration of the NP is expected in summer 2022 and the Council expects it to have taken account of the March 2022 version of the SPD.

5.2.6 In this instance, a 'do-nothing' approach would not be appropriate as a reasonable alternative, as Policy D1 within the adopted VALP requires an SPD to be produced in order to co-ordinate development at Site D-AGT1.

5.3 Describing the reasonable alternatives

5.3.1 There are three reasonable alternatives which have been identified during the preparation of the SPD, relating to the layout of the proposed development at Site D-AGT1:

- One alternative as proposed in the SPD;
- One as presented within the draft Stoke Mandeville Neighbourhood Plan (2021)⁴⁵. The proposed outline masterplan of the site is presented within the Stoke Mandeville Corridor Policy paper⁴⁶; and
- One as presented within the outline planning application masterplan submitted by Broadway Malyan (19/01628/AOP) which covers approximately half of Site D-AGT1⁴⁷.

5.3.2 The masterplan site boundary presented in the draft D-AGT1 South Aylesbury SPD is shown in **Figure 5.1**, the masterplan site boundary presented in the Stoke Mandeville Corridor Policy Paper is shown in **Figure 5.2**, and the masterplan site boundary presented by Broadway Malyan is shown in **Figure 5.3**. There are no discernible differences between the masterplans at the strategic scale, which SEA concerns; however, there are some minor differences at the local scale related to site layout.

⁴⁵ Stoke Mandeville Parish Council (2021) A Neighbourhood Plan for Stoke Mandeville 2021 -2033. Available at: <https://www.stokemandevilleparishcouncil.org.uk/wp-content/uploads/2021/07/A-Neighbourhood-Plan-for-Stoke-Mandeville-2021-2033-ver2.pdf> [Accessed: 10/05/22]

⁴⁶ Stoke Mandeville Parish Council (2021) Stoke Mandeville Corridor Policy Paper [KPSMC]. Available at: <https://www.stokemandevilleparishcouncil.org.uk/wp-content/uploads/2021/07/Stoke-Mandeville-Corridor-Policy-Paper.pdf> [Accessed: 10/05/22]

⁴⁷ 19/01628/AOP | Outline planning application, for the proposed development of up to 750 dwellings, safeguarded land for delivery of South-East Aylesbury Link Road, Primary school, community hub, vehicular and pedestrian access off Lower Road, pedestrian and emergency access, new internal road and pedestrian footpath network and provision for green infrastructure | Land To East Of Lower Road Stoke Mandeville Buckinghamshire. Available at: <https://publicaccess.aylesburyvaledc.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=PQRMXXCLOPG00> [Date Accessed: 17/05/22]

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- 5.3.3 The site boundary for D-AGT1 is identical between the SPD and the SMNP. The masterplan submitted by Broadway Malyan covers only the western proportion of the Site D-AGT1 between Lower Road and the railway line. The main differences between the masterplans outlined within the SPD and the SMNP are the following:
- Location of the strategic green buffer; and
 - Location of the local centre.
- 5.3.4 The full assessment of reasonable alternatives, which was provided to the Council in May 2022 to help inform the preparation of the SPD, is presented in **Appendix C**.



Green Infrastructure Plan

Key

-  Strategic Buffer
-  Strategic Buffer - Peri-Urban Agriculture
-  Secondary Connections
-  Aylesbury Walk
-  South East Aylesbury Link Road Corridor
-  Railway Corridor
-  Central Open Space
-  School Playing Fields (size & position TBC)
-  Sports Pitches

Figure 5.1: GI Plan for Site D-AGT1 as set out within the D-AGT1 South Aylesbury SPD (Draft - March 2022)

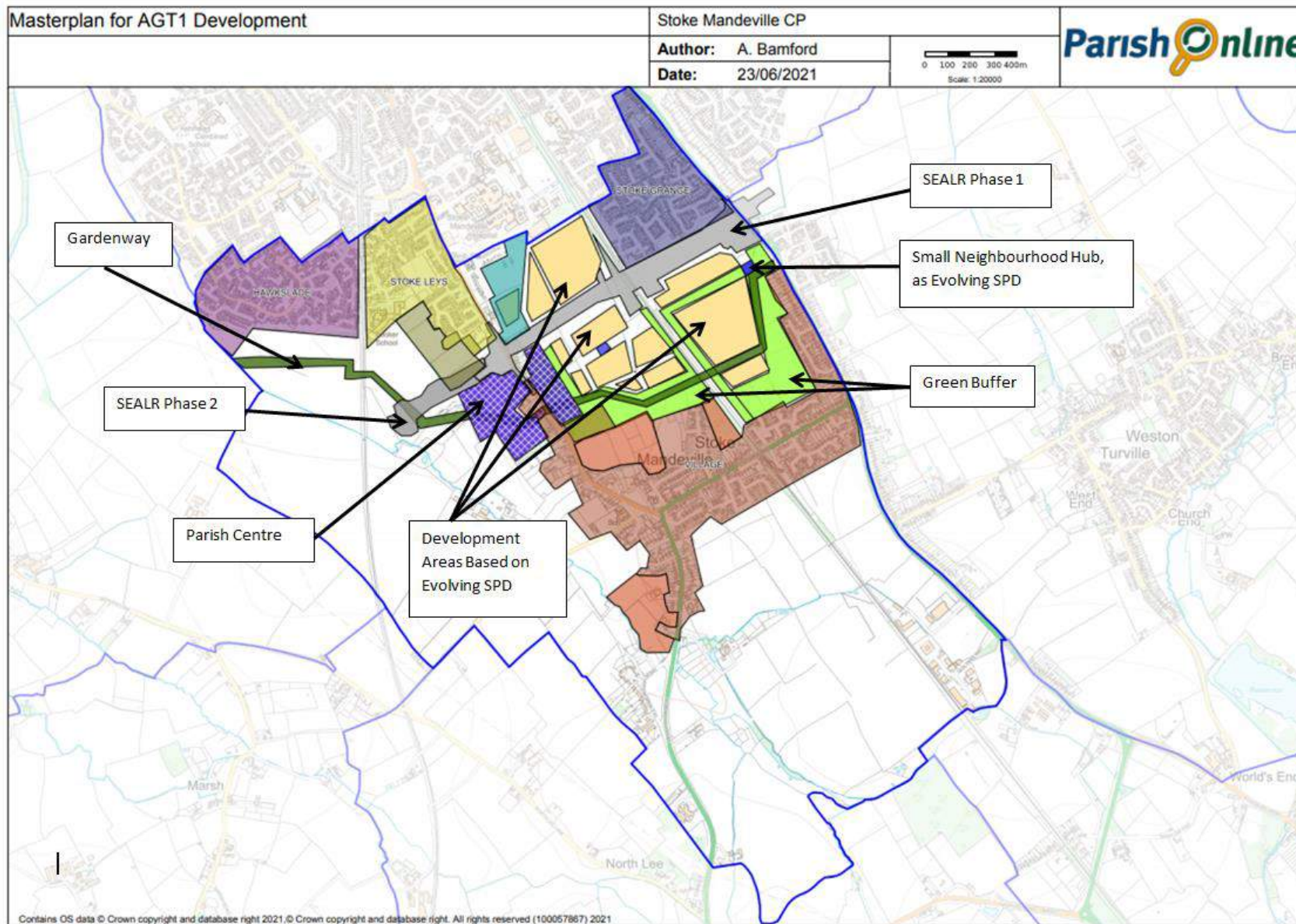


Figure 5.2: Outline masterplan of Site D-AGT1 as set out in the Stoke Mandeville Corridor Policy (Source: Draft Stoke Mandeville Neighbourhood Plan)

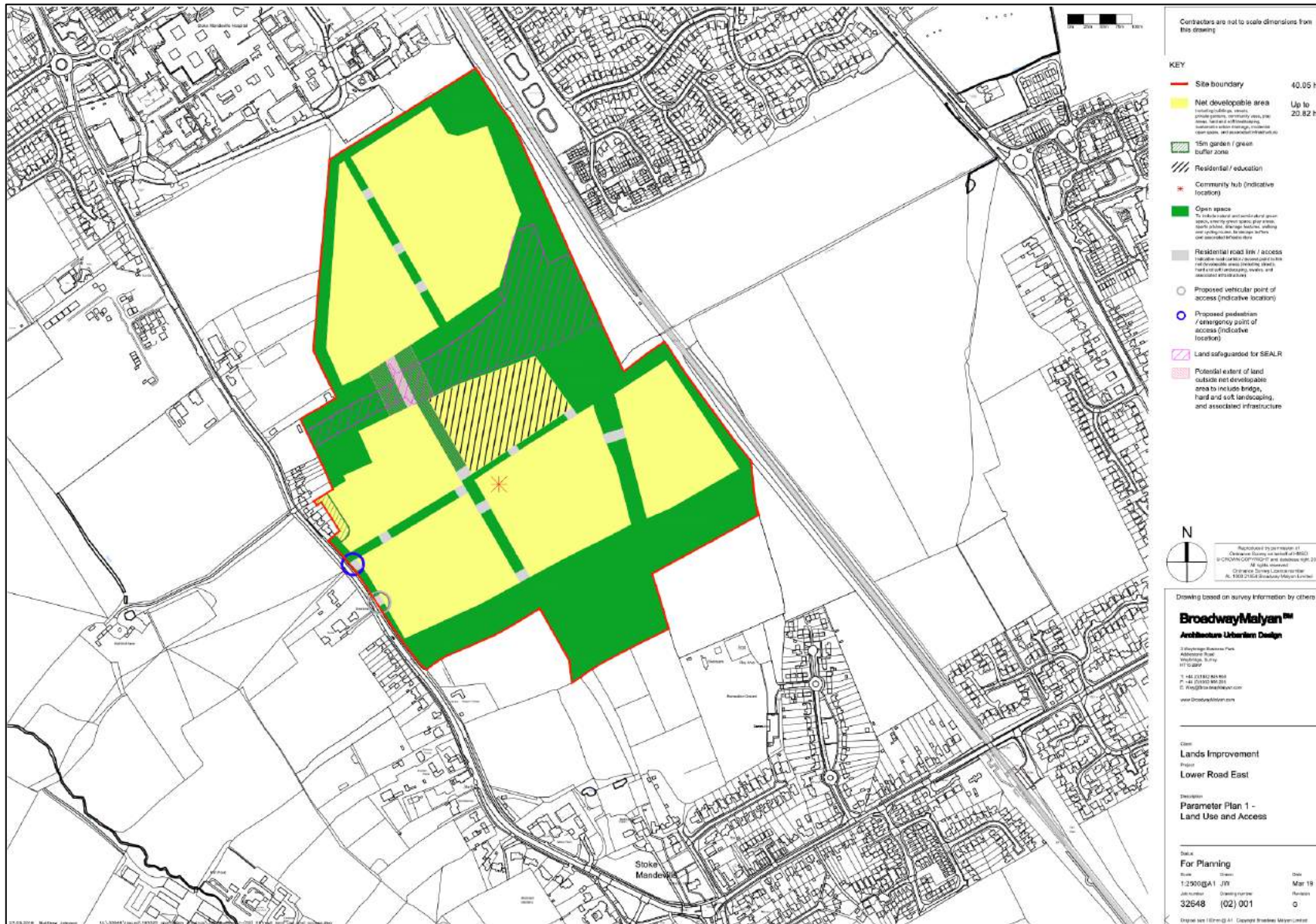


Figure 5.3: Outline masterplan covering part of Site D-AGT1 as set out in the Broadway Malyan planning application (Source: Buckinghamshire Council)

5.4 Evaluating the reasonable alternatives

- 5.4.1 Each reasonable alternative has been assessed against the SEA Framework, which itself focuses on biodiversity, climate change, cultural heritage, landscape and water.
- 5.4.2 The impact matrices for each reasonable alternative assessed in the SEA have been brought together in **Table 5.1**. These impacts should be read in conjunction with the assessment text narratives in **Appendix C**, as well as the topic-specific methodologies and assumptions presented in **Chapter 4**.
- 5.4.3 Whilst the assessment findings have drawn on the assumptions in **Table 4.4**, all assessment information excludes consideration of detailed mitigation i.e. additional detail or modification to the reasonable alternative that has been introduced specifically to reduce identified environmental effects of that site. Presenting assessment findings in this way facilitates transparency to the decision makers.
- 5.4.4 The three reasonable alternatives perform similarly in the SEA, with no single, best performing option identified owing to the small-scale differences identified between the options. In summary, the assessment presented in **Appendix C** identified the following effects:
- **Biodiversity** – For all options, a precautionary minor negative impact was identified with respect to potential adverse impacts associated with recreational pressure to the Chilterns Beechwoods SAC.
 - **Climate change** – Under any of the options, the introduction of at least 1,000 new dwellings would be likely to cause an increase in energy consumption, pollution, and traffic during both the construction and occupancy stages, to some extent, resulting in a minor negative impact on climate change.
 - **Cultural heritage** – Each of the options are likely to perform similarly at the strategic scale, in relation to cultural heritage, where potential minor negative impacts are associated with Site D-AGT1's coincidence with and close proximity to Grade II Listed Buildings and archeological remains.
 - **Landscape** – All options would be expected to have positive impacts in terms of promoting access to multi-functional greenspace, through various GI provisions including amenity greenspace alongside the proposed residential development. However, due to the nature and scale of the proposed development at Site D-AGT1, potential minor negative impacts on the landscape including views from the Chilterns AONB and urban sprawl/coalescence, could not be ruled out.
 - **Water** – All options would be expected to make positive contributions towards the protection and enhancement of river corridors and seek to protect water quality, and set out requirements for SuDS schemes. However, the potential implications of the development on water resources and water supply was uncertain.

Table 5.1: Impact matrix for reasonable alternatives

Reasonable Alternative	Topic	Overall Score
Stoke Mandeville Neighbourhood Plan	Biodiversity, flora and fauna	-
	Climate change	-
	Cultural heritage	-
	Landscape	-
	Water	+/-
D-AGT1 South Aylesbury Supplementary Planning Document	Biodiversity, flora and fauna	-
	Climate change	-
	Cultural heritage	-
	Landscape	-
	Water	+/-
Broadway Malyan Planning Application Masterplan	Biodiversity, flora and fauna	-
	Climate change	-
	Cultural heritage	-
	Landscape	-
	Water	+/-

6 The Preferred Approach

6.1 Selection of reasonable alternatives

6.1.1 PPG states that the Environmental Report accompanying the SPD should outline the reasons why alternatives were selected and the reasons that the rejected options were not taken forward.

6.1.2 As discussed in **section 5.4** and **Appendix C**, the three reasonable alternatives perform similarly in the SEA, with no single, best performing option identified owing to the small-scale differences identified between the options.

6.1.3 As Site D-AGT1 is allocated as a strategic site for Aylesbury, a 'do nothing' scenario is not considered to be a reasonable alternative. The SPD is also deemed to have an overall positive outcome as the SPD will guide the delivery of development through a timely and well-planned approach.

6.2 Preferred option

6.2.1 **Table 6.1** presents an assessment of the likely significant effects associated with the SPD in relation to the topics of biodiversity, cultural heritage, landscape, climate change and water.

6.2.2 Each of the topic sections have drawn on information presented in the SEA Scoping Report and **Chapter 3** in terms of baseline, impacts and key issues for the area affected by the SPD.

6.2.3 The assessments include consideration of the impacts arising as a consequence of the inter-relationship between the different topics and identify secondary, cumulative and synergistic effects where they arise.

Table 6.1: Summary of identified impacts by SEA Objective

Objective 1: Biodiversity, flora and fauna

- Site D-AGT1 comprises previously undeveloped land which is primarily agricultural in nature with hedgerow boundaries to fields and pockets of scrub which would be expected to provide some ecological value. Whilst in many cases these habitats can be conserved alongside development, it is possible that fragmentation or loss of habitats and connections between habitats could occur. This could lead to direct and cumulative effects associated with fragmentation of the habitat mosaic, with indirect or secondary impacts on reduction of genetic diversity and loss of species richness. However, given the relatively small size of the site these are unlikely to be significant especially if the existing features, especially the Black Poplars, are maintained and enhanced as part of the development proposals.
- Potential adverse recreational impacts have been identified upon the Ashridge Commons and Woods SSSI component of the Chilterns Beechwoods SAC from Site D-AGT1. This is discussed further in the HRA⁴⁸.

⁴⁸ Lepus Consulting (2022) Habitats Regulations Assessment of the South Aylesbury (D-AGT 1) Supplementary Planning Document. Habitats Regulations Assessment Report, August 2022.

Objective 2: Climate change

- The introduction of 1,000 or more new dwellings will inevitably cause an increase in energy consumption, pollution, and traffic during both the construction and occupancy stages, to some extent, resulting in an increase in GHG emissions. It is therefore expected that the development at Site D-ATG1 could have an adverse impact on climate change, to some extent. An increase in carbon emissions is likely to contribute towards cumulative effects which exacerbate global events such as extreme weather events.
- The proposed new link road between the A413 to B4443 Lower Road could potentially cause some negative impacts in terms of climatic factors, such as increased carbon footprint.
- The proposed incorporation of Green Infrastructure within the site alongside the residential development would be expected to help offset GHG emissions, to some extent, and would be expected to provide areas of shade and shelter which may have beneficial impacts in terms of adapting to climate change.
- Although Site D-AGT1 is located wholly within Flood Zone 1, with likely benefits in terms of situating new development away from areas currently at risk of flooding, it is possible that flood risk will become more prevalent in future years due to higher flood plain levels and climate change introducing more extreme weather events including higher volumes of rainfall.

Objective 3: Cultural heritage

- There are several Grade II Listed Buildings situated in close proximity to the proposed Site D-AGT1, including 'Magpie Cottage' which lies within the southwest corner of the site. The proposed development has potential to cause a negative impact on cultural heritage, in relation to these heritage assets and their settings. In particular, the proposed development has the potential to irreversibly change the setting of Magpie Cottage, potentially resulting in a significant adverse impact on this Listed Building.
- The Archaeology Data Service shows three records of physical archaeological evidence in the location of Site D-AGT1⁴⁹. This includes records of known features as well as digs and excavations, some of which resulted in archaeological finds. Development on Site D-ATG1 could potentially directly impact archaeological remains and therefore a minor negative impact on these heritage assets could be expected.

Objective 4: Landscape

- The Chilterns AONB occupies partially elevated land, located approximately 2.3km to the south east of the site, at its closest point. New development can lead to the loss of landscape features and changes to landscape character and views. Changes in landscape character have the potential to adversely affect the Chilterns AONB and its setting in some locations. The proposed development at Site D-AGT1 could potentially have a minor negative impact on the surrounding landscape by altering views from the Chilterns AONB. Adverse effects may also arise as a consequence of development proposals at other locations in the Plan area, with the potential to result in cumulative adverse impact on views from more sensitive locations within the designated landscape.
- Site D-AGT1 is located to the south of Aylesbury and north of Stoke Mandeville. Development proposals which are considered to reduce the separation between existing settlements and increase the risk of the coalescence of settlements could potentially have a minor negative impact on the landscape character.

⁴⁹ Archaeology Data Service (2018) ARCHSEARCH. Available at: <http://archaeologydataservice.ac.uk/> [Date Accessed: 09/05/22]

Objective 5: Water resources

- A minor watercourse runs through the eastern parcel of Site D-AGT1. The construction and occupation of development in close proximity to watercourses has the potential to increase the risk of contamination of the watercourse network and reduction in water quality, through pollution of surface water runoff.
- The proposed development of at least 1,000 dwellings as proposed within the SPD would be likely to increase the demand for water resources and wastewater treatment, with potential implications for water resource capacity. It is acknowledged that there are planned enhancements to the water resources systems, as identified in the WCS⁵⁰ and set out in the VALP, to accommodate development including for Site D-AGT1; however, in the longer term, the WCS identifies greater uncertainty regarding potential need to invest in additional capacity to accommodate growth in the Stoke Mandeville Parish area as all the proposed development in the area comes forward.

6.3 Mitigation considerations

- 6.3.1 The mitigation hierarchy is a sequential process that operates in the following way: firstly, if possible, negative impacts should be avoided. Failing this, the nature of the effect should be reduced, if possible, so that it is no longer significant. If neither avoidance nor reduction is feasible, compensation measures should be considered.

Table 6.2: Summary of mitigation measures by SEA Objective

Objective 1: Biodiversity, flora and fauna

- The proposed development at Site D-AGT1 must be in accordance with VALP policies including Policies NE1 (Biodiversity and Geodiversity) and NE8 (Trees, hedgerows and woodlands) which seek to protect and enhance designated sites, protected habitats/species and GI, and deliver biodiversity net gain. This could lead to longer term positive effects on biodiversity if net gains are successful.
- VALP Policy D-AGT1 states that “*existing vegetation should be retained where practicable, including existing woodlands and hedgerows*”. This is reflected in the Open Space and Green / Blue Infrastructure provisions within the SPD.
- The HRA⁵¹ concluded that there would be no adverse impact on site integrity, when taking into consideration the proposed mitigation measures including the provision of 50% Accessible Natural Green Space Standards (ANGSt) compliant GI, provision of connections to existing recreational resource within the local area, and commitment to meet provision Suitable Alternative Natural Greenspaces (SANG) guidelines and Strategic Access Management and Monitoring (SAMM) contributions in line with the emerging Ashridge Estate Mitigation Strategy. These provisions are outlined in Section 5 of the SPD.

Objective 2: Climate change

- The SPD sets out measures for mitigating climate change including reducing energy use, promotion of energy efficiency measures and use of renewable energy throughout the development, in line with Policy C3 of the VALP.

⁵⁰ JBA Consulting (2017) Aylesbury Vale District Council Water Cycle Study: Phase 1. Final Report, February 2017. Available at: https://www.aylesburyvaledc.gov.uk/sites/default/files/page_downloads/Aylesbury%20Vale%20Water%20Cycle%20Study%20Phase%201%20%28Final%29%20v2.0.pdf [Date Accessed: 30/05/22]

⁵¹ Lepus Consulting (2022) Habitats Regulations Assessment of the South Aylesbury (D-AGT 1) Supplementary Planning Document. Habitats Regulations Assessment Report, August 2022.

- The SPD seeks to create a strategic open space circular non-vehicular route, the 'Gardenway', which would be expected to improve connectivity to local amenities for new residents, encourage active travel and reduce reliance on private cars, potentially helping to reduce associated greenhouse gas emissions.
- The SPD sets out provision of a new local centre, to provide new residents in closer proximity to community facilities than current facilities available further away in Aylesbury and Stoke Mandeville, which would have positive impacts on active travel in the local area and reducing reliance on private cars.
- Policy PSGI 1 of the Draft SMNP also sets out the requirement for new developments to meet the Garden Town principles by providing at least 50% green infrastructure in the proposal. This criterion is also reflected in Policy D-AGT1 of the VALP. Vegetation acts as a carbon sink, providing an important ecosystem service and helping to mitigate the effects of climate change.
- VALP Policy D-AGT1 seeks to ensure that development is informed by detailed flood risk modelling to take account of climate change extents on ordinary watercourses and associated with surface water flood risk.

Objective 3: Cultural heritage

- The SPD, in line with the site-specific requirement of VALP Policy D-AGT1, seeks to retain Grade II Listed Building 'Magpie Cottage' within an appropriate setting, and states that "*green buffers should be provided to separate adjacent listed buildings from the new development*". The setting of Magpie Cottage must be subject to careful consideration as part of a detailed landscape and heritage evaluation at the Planning Application stage.
- Various VALP policies, such as BE1 (Heritage Assets) seeks to ensure that development in Aylesbury minimises impacts on heritage assets. According to the VALP, all development should seek to conserve heritage assets in a manner appropriate to their significance, including their setting, and seek enhancement wherever possible.
- With regard to the archaeological remains present within the Site D-AGT1 boundary, the SPD states that "*an effective mitigation strategy of evaluation, for example, through geophysics and trial trenching, should be developed in consultation with the Archaeology Officer, Planning, Growth and Sustainability at Buckinghamshire Council, at the planning stage of development*".

Objective 4: Landscape

- The VALP sets out policies and strategic objectives for the built environment. This provides guidelines for new buildings and seeks to ensure that all developments conserves and enhances the natural, built and historic environment of the site.
- As a site-specific requirement, the VALP sets out to provide a buffer between the new development and Stoke Mandeville. The SPD sets out various principles for the proposed strategic buffer, to ensure that the provision of GI and retained agricultural land will "*preserve the separate identity of Stoke Mandeville village*" in addition to providing visual interest and amenity space for new residents. The buffer may help to reduce the extent of coalescence.
- According to VALP Policy D-AGT1, "*The development should be designed using a landscape-led approach including consideration of the long-distance views of the AONB*".

Objective 5: Water resources

- In relation to water management, the draft SPD (July 2022) recognises that local borehole records show that groundwater levels are close to the surface and outlines that "*development is to be designed using a sequential approach with drainage designs designed to exceed and accommodate existing surface water*"

flows". The SPD seeks to implement above-ground vegetative Sustainable Drainage Systems (SuDS) including rainwater harvesting, grey water systems and rain gardens to effectively manage surface water which could indirectly have positive consequences for drainage and wastewater during flood events.

- The SPD states that *"the existing watercourse which runs through the eastern parcel and proposed buffer will be enhanced and its ecological status improved, whilst through the modification of the channel it will provide flood elevation measures, reducing the risk of flooding downstream"*.
- The VALP sets out policies which seek to promote sustainability in water use, maintain and enhance water quality and ensure adequate water resources are available. VALP Policy I5 also requires development proposals to adhere to the higher water efficiency standard of 110 litres per person per day, as set out in the Building Regulations Part G.

6.4 Residual effects and recommendations

6.4.1 Following consideration of mitigation measures as outlined in **Table 6.2**, the following conclusions have been made, as presented in **Table 6.3**, regarding the residual effects of the SPD.

Table 6.3: Summary of identified residual effects by SEA Objective

SEA Topic	Identified Residual Effects	SEA Score
Objective 1: Biodiversity, flora and fauna	At this stage, there is anticipated to be no adverse impact on the integrity of the Chilterns Beechwoods SAC as a result of the SPD, so long as the mitigation provisions as outlined in the HRA ⁵² are achieved. No adverse residual effect on biodiversity, flora and fauna is anticipated.	0
Objective 2: Climate change	The VALP and SPD set out various requirements which aim to help mitigate the adverse impacts relating to climatic factors. However, the implementation of these requirements would not be expected to fully mitigate the adverse impacts associated with net increases in greenhouse gases. An increase in carbon emissions would be likely to be a long term but potentially temporary significant effect.	-
Objective 3: Cultural heritage	Despite the provisions made in the VALP and SPD regarding the conservation of heritage assets, there is anticipated to be a residual adverse effect on the setting of the Grade II Listed Building, Magpie Cottage.	-
Objective 4: Landscape	Various VALP and SPD provisions would help to mitigate adverse impacts on the landscape character arising from the proposed development. Due to the scale of development proposed, particularly when considering the location of the site with respect to the AONB, these provisions are not expected to fully mitigate the potential impacts associated with urbanisation of the countryside although it is unlikely that these residual impacts would be significant. Overall, no adverse residual effect is anticipated.	0
Objective 5: Water resources	<p>Increased pressures on demand for water resources and wastewater treatment as a consequence of the proposed development has the potential to be a long-term and potentially permanent significant effect. The WCS indicates that more detailed study would be required to confirm the conclusions regarding the local distribution system impact within Stoke Mandeville.</p> <p>The proposed development could also contribute towards a cumulative adverse effect on river quality as a consequence of storm events and associated sewage discharge releases.</p> <p>In line with the precautionary principle, a minor negative residual effect has been identified.</p>	-

⁵² Lepus Consulting (2022) Habitats Regulations Assessment of the South Aylesbury (D-AGT 1) Supplementary Planning Document. Habitats Regulations Assessment Report, August 2022.

6.4.2 Therefore, the SPD is considered to have potential to lead to minor residual adverse effects in relation to climate change (SA Objective 2), cultural heritage (SA Objective 3) and water resources (SA Objective 5).

6.4.3 **Table 6.4** outlines further recommendations which may help to mitigate or offset identified adverse impacts, or further enhance the sustainability of the SPD.

Table 6.4: Recommendations to further improve sustainability of the SPD

SEA Topic	Recommendations
Objective 1: Biodiversity, flora and fauna	<ul style="list-style-type: none"> The SPD should seek to incorporate the aims, objectives and principles of the Biodiversity Action Plan to ensure that the land can be effectively managed to support Buckinghamshire’s biodiversity beyond protected sites and sites managed for wildlife, and seek to embrace the priorities of the future publications from the Natural Environment Partnership including the upcoming Local Nature Recovery Strategy. The development should secure management and monitoring of biodiversity features on and off-site, and to consider opportunities for enhancing connectivity of the wider ecological networks associated with designated biodiversity sites.
Objective 2: Climate change	<ul style="list-style-type: none"> Opportunities for increasing the proportion of trips made through sustainable transport should be understood and pursued, in line with the hierarchy of decarbonisation recommended in the RTPI’s Net Zero Transport⁵³. In line with the NPPF, the SPD should seek to prioritise renewable and low carbon energy sources, opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers. Energy statements could be required in order to demonstrate how carbon emissions have been minimised for the development over its lifetime. The SPD could seek Net Zero design principles to be prepared for the construction and operation of the site, such as with reference to the guide prepared by LETI⁵⁴.
Objective 3: Cultural heritage	<ul style="list-style-type: none"> It is acknowledged that the SPD seeks to retain Grade II Listed Building ‘Magpie Cottage’ within an appropriate setting, however the SPD could benefit from further detail regarding the conservation and, where possible, enhancement of this heritage asset in line with its significance. This should be informed by a heritage assessment. Consultation with Historic England and the Council’s Conservation Officer is recommended with respect to this asset. Where there is potential for development to adversely affect a heritage asset, including the setting of that asset, an assessment should be undertaken to establish the extent of

⁵³ RTPI (2021) Net Zero Transport: the role of spatial planning and place-based solutions. Available at: <https://www.rtpi.org.uk/research/2020/june/net-zero-transport-the-role-of-spatial-planning-and-place-based-solutions/> [Date Accessed: 31/05/22]

⁵⁴ LETI (2020) Climate Emergency Design Guide: How new buildings can meet UK climate change targets. Available at: http://b80d7a04-1c28-45e2-b904-e0715cface93.filesusr.com/ugd/252d09_3b0f2acf2bb24c019f5ed9173fc5d9f4.pdf [Date Accessed: 31/05/22]

SEA Topic	Recommendations
	<p>this potential effect as per guidelines provided by Historic England⁵⁵. Historic England have also produced specific advice on rural planning⁵⁶ and guidance on the management of Conservation Areas⁵⁷.</p> <ul style="list-style-type: none"> • Where possible development should consider sensitive design around existing cultural assets and maintain the setting of such assets, including the use of screening (where appropriate). • It is also recommended that, where the opportunity exists, proposals should seek to increase the local awareness of cultural heritage assets in the local area.
Objective 4: Landscape	<ul style="list-style-type: none"> • It is anticipated that the Council will require developers to undertake Landscape and Visual Impact Assessments (LVIAs) or Landscape and Visual Appraisals (LVAs) to accompany any future proposals, where relevant. The LVIAs or LVAs should seek to provide greater detail in relation to the landscape character of the proposal and its surroundings, the views available towards the development proposal, the character of those views and the sensitivity and value of the relevant landscape and visual receptors. • Landscaping proposals should include the use locally important native tree and hedge species and be guided by the Aylesbury Vale Landscape Character Assessments. Where screening is considered appropriate, guidelines for species selection and conditions for screening foliage are provided by the Royal Horticultural Society⁵⁸.
Objective 5: Water resources	<ul style="list-style-type: none"> • The permeability of soil reduces as compaction increases. It is therefore recommended that construction workers adopt best practice measures to avoid the compaction of soils and exacerbating surface water flood risk during construction⁵⁹. • In line with the NPPF, development should seek to, wherever possible, help to improve environmental conditions, such as water quality. • Development proposals should be built in accordance with recommendations within the WCS and other relevant documents within the Evidence Base, including Water Resource Management Plans, Catchment Flood Management Plan and Basin Management Plans.

⁵⁵ Historic England (2017) The Setting of Heritage Assets - Historic Environment Good Practice Advice in Planning: 3. Available at: <https://historicengland.org.uk/images-books/publications/apa3-setting-of-heritage-assets/> [Date Accessed: 28/02/22]

⁵⁶ Historic England (2021) Rural Planning. Available at: <https://historicengland.org.uk/advice/planning/rural-planning/> [Date Accessed: 28/02/22]

⁵⁷ Historic England (2021) Designating and Managing a Conservation Area. Available at: <https://historicengland.org.uk/advice/planning/conservation-areas/> [Date Accessed: 08/02/22]

⁵⁸ Royal Horticultural Society (2017) Plants for Screening. Available at: <https://www.rhs.org.uk/advice/profile?PID=636> [Date Accessed: 31/05/22]

⁵⁹ DEFRA (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. Available at: <https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites> [Date Accessed: 31/05/22]

7 Monitoring

7.1 Monitoring proposals

7.1.1 Regulation 17(1) of the SEA Regulations states that “*The responsible authority shall monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action*”.

7.1.2 According to Schedule 2 of the SEA Regulations, the ER should also provide information on a “*description of the measures envisaged concerning monitoring*”.

7.1.3 The monitoring requirements typically associated with the SEA process are recognised as placing heavy demands on authorities with SEA responsibilities. For this reason, the proposed monitoring framework should focus on those aspects of the environment that are likely to be negatively impacted upon, where the impact is uncertain or where particular opportunities for improvement might arise.

7.1.4 The purpose of monitoring is to measure the environmental effects of a plan, as well as to measure success against the plan’s objectives. It is therefore beneficial if the monitoring strategy builds on monitoring systems that are already in place. It should also be noted that monitoring could provide useful information for future plans and programmes.

7.1.5 Monitoring is particularly useful in answering the following questions:

- Were the assessment’s predictions of sustainability effects accurate?
- Does the development contribute to the achievement of desired sustainability objectives?
- Are mitigation measures performing as well as expected?
- Are there any unforeseen adverse effects? Are these within acceptable limits, or is remedial action required?

7.1.6 The SEA guidance suggests that SEA monitoring and reporting activities can be integrated into the regular planning cycle. As part of the monitoring process, Buckinghamshire Council are required to prepare Annual Monitoring Reports⁶⁰. It is anticipated that elements of the SEA monitoring programme for the development could be incorporated into these processes. The monitoring targets will be informed by the SEA Framework and its indicators (see **Appendix A**).

⁶⁰ Buckinghamshire Council (2022) Planning Reports. Available at: <https://www.buckinghamshire.gov.uk/planning-and-building-control/planning-policy/planning-reporting/#:~:text=The%20Buckinghamshire%20Council%20Authority%20Monitoring,much%20development%20is%20taking%20pl ace> [Date Accessed: 28/02/22].

7.1.7 Whilst the SEA process has not identified any significant negative effects associated with the development it is considered that monitoring may be beneficial to ensure the successful implementation of recommended mitigation and enhancement measures set out within the SPD. Monitoring suggestions are provided in **Table 7.1**.

Table 7.1: Proposals for monitoring adverse sustainability impacts of the SPD

SEA Topic	Indicator	Scale and frequency	Target
Biodiversity, flora and fauna	Percentage of SSSIs in favourable condition	Annually, Plan area wide	Increase
	Number of Planning Approvals granted contrary to the advice of Natural England or the Wildlife Trust	Annually, Plan area wide	Zero
	Percentage loss of the ecological network	Annually, Plan area wide	Zero
Climate change	CO ₂ emissions per capita	Annually, Plan area wide	Decrease
	Renewable energy generation	Annually, Plan area wide	Increase
Cultural heritage	Number of heritage assets identified as 'heritage at risk'	Annually, Plan area wide	Decrease
	Quantity of development in the open countryside	Annually, Plan area wide	Zero
	Change in tranquillity in the open countryside	Annually, Plan area wide	Zero
Water	Number of planning permissions granted contrary to Environment Agency advice	Annually, Plan area wide	Zero
	Quality of watercourses	Annually, Plan area wide	Increase
	Water efficiency in new homes	Annually, Plan area wide	Increase

7.1.8 Details of any monitoring programme are, at this stage, preliminary and may evolve over time based on the results of consultation and the identification of additional data sources (as in some cases information will be provided by outside bodies). The monitoring of individual schemes/proposals should also be addressed at project level.

8 Conclusion and Next Steps

8.1 Overview

8.1.1 This document constitutes an Environmental Report for the purposes of the SEA Regulations, in order to:

- Provide an outline of the contents and main objectives of the SPD and its relationship with other relevant plans;
- Consider the environmental protection objectives established at international, national or community level and how these objectives are relevant to the SPD;
- Assess the likely significant effects on the environment caused by the SPD (including biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, and cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors);
- Give details of the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the SPD;
- Give an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information; and
- Include a description of the measures envisaged concerning monitoring.

8.1.2 Assessment of reasonable alternatives identified that the three reasonable alternatives perform similarly in the SEA, with no single, best performing option identified owing to the small-scale differences identified between the options.

8.1.3 The Council are pursuing the approach as set out in the outline masterplan of Site D-AGT1, based on the various findings and documents comprising their evidence base and the adopted Buckinghamshire Local Plan⁶¹ policies.

8.1.4 The impact assessment identified potential negative effects as a result of the proposed development on:

- **Biodiversity, flora and fauna** – primarily related to potential adverse recreational impacts on the Chiltern Beechwoods SAC;

⁶¹ Buckinghamshire County Council (2021) Adopted Vale of Aylesbury Local Plan. Available at: <https://www.buckinghamshire.gov.uk/planning-and-building-control/planning-policy/local-development-plans/> [Date Accessed: 05/05/22]

- **Climate change** – due to an increase in energy consumption, pollution, and traffic during both the construction and occupancy stages associated with the development of at least 1,000 dwellings;
- **Cultural heritage** – in particular, impacts on the setting of surrounding Listed Buildings and areas of archaeological remains;
- **Landscape** – including potential for minor adverse effects on views from the Chilterns AONB and urbanisation of the countryside; and
- **Water** – in terms of potential effects on water supply/resources and water quality arising from the proposed development of at least 1,000 dwellings.

8.1.5 The SPD would be anticipated to result in a range of positive effects including the opportunity to provide new homes, community facilities and pedestrian routes for the enjoyment of current and future residents, as well as having the potential to deliver enhanced multi-functional GI and biodiversity net gain. Various provisions proposed within the SPD and policies outlined in VALP would help to ensure that future development takes into account the surrounding built and natural environment, historic assets and landscape character.

8.1.6 Following consideration of mitigation measures (see **Table 6.2**), as well as the outputs of the emerging HRA and other evidence base documents, a residual adverse effect on biodiversity and landscape have been ruled out (see **Table 6.3**).

8.1.7 Potential residual minor adverse effects have been identified in relation to:

- **Climate change** – it is not expected that the identified adverse impacts from GHG emissions associated with the large scale of proposed development would be fully mitigated;
- **Cultural heritage** – it is likely that the setting of the Grade II Listed Building ‘Magpie Cottage’ would be altered to some extent by the proposed development; and
- **Water** – at this stage, the potential for increased pressure on demand for water resources and wastewater treatment cannot be ruled out.

8.1.8 Several recommendations have been made in this SEA report (see **Table 6.4**) to potentially enhance the sustainability of the proposals within the SPD or to provide further clarity regarding certain issues.

8.2 Next steps

8.2.1 This ER will be subject to consultation with the statutory bodies and the public.

8.2.2 Following the consultation period, responses will be considered by the Council to inform the final version of the SPD. If the Council members vote in favour of the D-AGT1 South Aylesbury SPD, the SPD will become adopted as part of the statutory development plan.

8.2.3 SEA Regulations 16.3(c) (iii) and 16.4 require that a ‘statement’ be made available to accompany the plan, as soon as possible after the adoption of the plan or programme, known as a post-adoption statement. The purpose of the SEA statement is to outline how the SEA process has influenced and informed the SPD development process and demonstrate how consultation on the SEA has been taken into account.

8.2.4 In accordance with the SEA Regulations, the statement should contain the following information:

- The reasons for choosing the preferred policies for the SPD as adopted in the light of other reasonable alternatives dealt with;
- How environmental considerations have been integrated into the SPD;
- How consultation responses have been taken into account; and
- Measures that are to be taken to monitor the significant environmental effects of the SPD.

8.3 Commenting on the Environmental Report

8.3.1 Any comments on this SEA Report should be directed through Buckinghamshire Council.

Appendix A: SEA Framework

SEA Objective	Decision making criteria	Indicators
<p>1</p> <p>Biodiversity, Flora and Fauna: Protect, enhance, restore and manage the flora, fauna, biodiversity and geodiversity assets of the areas affected by the development of Site D-AGT1.</p>	Will it result in a net loss or a net gain for biodiversity?	<ul style="list-style-type: none"> • Number of new residents which generate adverse impacts on sites of biodiversity importance, such as the Chiltern Beechwoods SAC. • Creation of new biodiversity assets. • Provision of multi-functional green infrastructure. • Enhancement and protection of habitats and wildlife corridors. • Ensure current ecological networks are not compromised and secure future improvement in habitat connectivity. • Protection of existing vegetation and hedgerows. • Protection and enhancement of watercourses.
	Will it protect or enhance wildlife sites or biodiversity?	
	Will it protect sites and habitats designated for nature conservation including protected species?	
	Will it protect and enhance the water environment?	
<p>2</p> <p>Climate Change: Mitigate and reduce Site D-AGT1's contribution towards climate change.</p>	Will it reduce emissions from transport and the built environment?	<ul style="list-style-type: none"> • Provision of green infrastructure. • Public transport and cycling and walking provision for new development. • Length of greenways constructed. • Natural greenspace within 400m of residential development. • Increased local traffic. • Drainage designed for 'exceedence' flood events (e.g. SuDS). • Design incorporating water conservation methods.
	Will it reduce flood risk?	
	Will it conserve water resources?	

SEA Objective	Decision making criteria	Indicators
<p>3</p> <p>Cultural Heritage: Protect, enhance and manage heritage assets, including designated and non-designated, as well as features and areas of and heritage importance.</p>	<p>Will it preserve buildings of historic interest and, where necessary, encourage their conservation?</p>	<ul style="list-style-type: none"> • Protection of local heritage features including Listed Buildings, such as Grade II Listed Building ‘Magpie Cottage’. • Annual number of visitors to historic attractions. • Below ground remains – For archaeology this means conserving archaeological remains where practicable, particularly remains of national importance, through masterplan design, to mitigate through archaeological investigation, recording and publication where conservation is not practicable.
	<p>Will it preserve or enhance archaeological sites?</p>	
	<p>Will it preserve or enhance the setting or character of cultural heritage assets or areas?</p>	
<p>4</p> <p>Landscape: Conserve, enhance, restore and manage the character and appearance of the landscape and townscape, maintaining and strengthening their distinctiveness.</p>	<p>Will it protect and enhance the local landscape?</p>	<ul style="list-style-type: none"> • Landscape-led development with consideration of long-distance views of the AONB. • Use of locally sourced materials. • Is development in-keeping with surroundings (e.g. character of Stoke Mandeville)? • Increase of coalescence. • Protection of local PRoWs.
	<p>Will it protect and enhance the local townscape?</p>	
<p>5</p> <p>Water: Maintain and enhance water quality and ensure the most efficient use of water.</p>	<p>Will it maximise water efficiency?</p>	<ul style="list-style-type: none"> • Water efficiency in new homes (i.e. all new housing schemes to achieve water efficiency standard of 110 litres/person/day (lpd) • No indicators for water infrastructure have been identified. • Protect local watercourses and improve their water quality.
	<p>Will it minimise impact on water quality?</p>	
	<p>Will it impact on water discharges that affect designated sites?</p>	
	<p>Will it contribute to achieving the River Basin Management Plan actions and objectives?</p>	

Appendix B: Plans, Policies and Programmes Review

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Biodiversity, Flora and Fauna	
A Green Future: Our 25 Year Plan to Improve the Environment (2018)	<p>The document sets out government action to help achieve natural world regain and retain good health. The main goals of the Plan are to achieve:</p> <ul style="list-style-type: none"> • Clean air; • Clean and plentiful water; • Thriving plants and wildlife; • A reduced risk of harm from environmental hazards such as flooding and drought; • Using resources from nature more sustainably and efficiently; and • Enhanced beauty, heritage and engagement with the natural environment.
EC Seventh Environmental Action Programme 2013-2020 (2013)	<p>The main concern of the EEB was the need to describe in an un-ambivalent manner the environmental challenges the EU is faced with, including accelerating climate change, deterioration of our eco-systems and increasing overuse of natural resources.</p>
Our life insurance, our natural capital: an EU biodiversity strategy to 2020 (2011)	<p>The EU biodiversity strategy follows on from the EU Biodiversity Action Plan (2006). It aims to halt the loss of biodiversity and ecosystem services across the EU by 2020. The strategy contains six targets and 20 actions. The six targets cover:</p> <ul style="list-style-type: none"> • Full implementation of EU nature legislation to protect biodiversity; • Better protection for ecosystems, and more use of green infrastructure; • More sustainable agriculture and forestry; • Better management of fish stocks; • Tighter controls on invasive alien species; and • A bigger EU contribution to averting global biodiversity loss.
The Pan-European Biological and Landscape Diversity Strategy (1995)	<p>The strategy aims to stop and reverse the degradation of biological and landscape diversity values in Europe.</p>
UN Convention on Biological Diversity (1992)	<p>The aims of the Convention include the conservation of biological diversity (including a commitment to significantly reduce the current rate of biodiversity loss), the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.</p>
Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)	<p>The Convention seeks to conserve wild flora and fauna and their natural habitats, and to monitor and control endangered and vulnerable species.</p>

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Biodiversity, Flora and Fauna	
<p>Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora 1992 (the Habitats Directive)</p>	<p>The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance. In applying these measures Member States are required to take account of economic, social and cultural requirements, as well as regional and local characteristics.</p> <p>The provisions of the Directive require Member States to introduce a range of measures, including:</p> <ul style="list-style-type: none"> • Maintain or restore European protected habitats and species listed in the Annexes at a favourable conservation status as defined in Articles 1 and 2; • Contribute to a coherent European ecological network of protected sites by designating Special Areas of Conservation (SACs) for habitats listed on Annex I and for species listed on Annex II. These measures are also to be applied to Special Protection Areas (SPAs) classified under Article 4 of the Birds Directive. Together SACs and SPAs make up the Natura 2000 network (Article 3); • Ensure conservation measures are in place to appropriately manage SACs and ensure appropriate assessment of plans and projects likely to have a significant effect on the integrity of an SAC. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest. In such cases compensatory measures are necessary to ensure the overall coherence of the Natura 2000 network (Article 6); • Member States shall also endeavour to encourage the management of features of the landscape that support the Natura 2000 network (Articles 3 and 10); • Undertake surveillance of habitats and species (Article 11); • Ensure strict protection of species listed on Annex IV (Article 12 for animals and Article 13 for plants). <p>Report on the implementation of the Directive every six years (Article 17), including assessment of the conservation status of species and habitats listed on the Annexes to the Directive.</p>
<p>The Conservation of Habitats and Species Regulations 2010 (Habitats regulations)</p>	<p>This transposes into national law the Habitats Directive and also consolidates all amendments that have been made to the previous 1994 Regulations. This means that competent authorities have a general duty in the exercise of any of their functions to have regard to the Directive.</p>
<p>The Countryside and Rights of Way Act 2000</p>	<p>The Act provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for better management of Areas of Outstanding Natural Beauty (AONB)</p>
<p>The Natural Environment and Rural Communities Act 2006</p>	<p>The Act makes provision in respect of biodiversity, pesticides harmful to wildlife and the protection of birds, and in respect of invasive non-native species. It alters enforcement powers in connection with wildlife protection and extends time limits for prosecuting certain wildlife offences. It addresses a small number of gaps and uncertainties which have been identified in relation to the law on sites of special scientific interest. And it amends the functions and constitution of National Park authorities, the functions of the Broads Authority and the law on rights of way.</p>

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Biodiversity, Flora and Fauna	
DEFRA Wildlife and Countryside Act (1981, as amended)	The principle mechanism for the legislative protection of wildlife in Great Britain.
DEFRA. Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011)	<p>The England biodiversity strategy 2020 ties in with the EU biodiversity strategy in addition to drawing links to the concept of ecosystem services. The strategy's vision for England is:</p> <p>"By 2050 our land and seas will be rich in wildlife, our biodiversity will be valued, conserved, restored, managed sustainably and be more resilient and able to adapt to change, providing essential services and delivering benefits for everyone".</p> <p>The Strategy's overall mission is "to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people".</p>
DoE Biodiversity: The UK Action Plan (1994)	Government's strategy for protection and enhancement of biodiversity, from 1992 convention on Biodiversity commitments. Advises on opportunities and threats for biodiversity.
TCPA: Biodiversity by Design: A Guide for Sustainable Communities (2004)	The development process should consider ecological potential of all areas including both greenfield and brownfield sites. Local authorities and developers have a responsibility to mitigate impacts of development on designated sites and priority habitats and species and avoid damage to ecosystems.
National Planning Policy Framework (MHCLG 2021)	<p>The recently released NPPF seeks to streamline the planning system and sets out the Governments planning policies and how these should be applied. At the heart of the NPPF is presumption in favour of sustainable development.</p> <p>The NPPF includes guidance on promoting the conservation and enhancement of the natural environment. It requires the planning system to contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> • protecting and enhancing valued landscapes, geological conservation interests and soils; • recognising the wider benefits of ecosystem services; • minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; • preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and • remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
Making Space for Nature: a review of England's wildlife sites and ecological network (2010)	<p>The Making Space for Nature report, which investigated the resilience of England's ecological network to multiple pressures, concluded that England's wildlife sites do not comprise a coherent and resilient ecological network. The report advocates the need for a step change in conservation of England's wildlife sites to ensure they are able to adapt and become part of a strong and resilient network. The report summarises what needs to be done to improve England's wildlife sites to enhance the resilience and coherence of England's ecological network in four words; more, bigger, better, and joined. There are five key approaches which encompass these, which also take into account of the land around the ecological network:</p> <ul style="list-style-type: none"> • Improve the quality of current sites by better habitat management.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Biodiversity, Flora and Fauna	
	<ul style="list-style-type: none"> • Increase the size of current wildlife sites. • Enhance connections between, or join up, sites, either through physical corridors, or through ‘stepping stones’. • Create new sites. • Reduce the pressures on wildlife by improving the wider environment, including through buffering wildlife sites. <p>To establish a coherent ecological network 24 wide ranging recommendations have been made which are united under five key themes:</p> <ul style="list-style-type: none"> • There is a need to continue the recent progress in improving the management and condition of wildlife sites, particularly our SSSIs. We also make recommendations for how these should be designated and managed in ways that enhance their resilience to climate change. • There is a need to properly plan ecological networks, including restoration areas. Restoration needs to take place throughout England. However, in some areas, both the scale of what can be delivered to enhance the network, and the ensuing benefits for wildlife and people, will be very high. These large areas should be formally recognised as Ecological Restoration Zones. • There are a large number of surviving patches of important wildlife habitat scattered across England outside of SSSIs, for example in Local Wildlife Sites. We need to take steps to improve the protection and management of these remaining wildlife habitats. ‘Protection’ will usually be best achieved through incentive-based mechanisms, but at times may require designation. • There is a need to become better at deriving multiple benefits from the ways we use and interact with our environment. There are many things that society has to do that may seem to have rather little to do with nature conservation, but could have, or even should have if we embrace more radical thinking; e.g. flood management by creating wetlands. <p>It will not be possible to achieve a step-change in nature conservation in England without society accepting it to be necessary, desirable, and achievable. This will require strong leadership from government and significant improvements in collaboration between local authorities, local communities, statutory agencies, the voluntary and private sectors, farmers, landowners and other land-managers and individual citizens.</p>
DEFRA England's Trees, Woods and Forests Strategy (2007)	<p>The England's Trees, Woods, and Forest Strategy (2007) aims to:</p> <ul style="list-style-type: none"> • provide, in England, a resource of trees, woods and forests in places where they can contribute most in terms of environmental, economic and social benefits now and for future generations • ensure that existing and newly planted trees, woods and forests are resilient to the impacts of climate change and also contribute to the way in which biodiversity and natural resources adjust to a changing climate • protect and enhance the environmental resources of water, soil, air, biodiversity and landscapes (both woodland and non-woodland), and the cultural and amenity values of trees and woodland • increase the contribution that trees, woods and forests make to the quality of life for those living in, working in or visiting England; and • improve the competitiveness of woodland businesses and promote the development of new or improved markets for sustainable woodland products and ecosystem services where this will deliver identify able public benefits, nationally or locally, including the reduction of carbon emissions.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Biodiversity, Flora and Fauna	
<p>The Natural Choice: Securing the Value of Nature. The Natural Environment White Paper. (HM Government 2011)</p>	<p>Published in June 2011, the Natural Environment White paper sets out the Government's plans to ensure the natural environment is protected and fully integrated into society and economic growth. The White Paper sets out four key aims:</p> <p>(i) <u>Protecting and improving our natural environment</u></p> <p>There is a need to improve the quality of our natural environment across England, moving to a net gain in the value of nature. It aims to arrest the decline in habitats and species and the degradation of landscapes. It will protect priority habitats and safeguard vulnerable non-renewable resources for future generations. It will support natural systems to function more effectively in town, in the country and at sea. It will achieve this through joined-up action at local and national levels to create an ecological network which is resilient to changing pressures.</p> <p>(ii) <u>Growing a green economy</u></p> <p>The ambition is for a green and growing economy which not only uses natural capital in a responsible and fair way but also contributes to improving it. It will properly value the stocks and flows of natural capital. Growth will be green because it is intrinsically linked to the health of the country's natural resources. The economy will capture the value of nature. It will encourage businesses to use natural capital sustainably, protecting and improving it through their day-to-day operations and the management of their supply chains.</p> <p>(iii) <u>Reconnecting people and nature</u></p> <p>The ambition is to strengthen the connections between people and nature. It wants more people to enjoy the benefits of nature by giving them freedom to connect with it. Everyone should have fair access to a good-quality natural environment. It wants to see every child in England given the opportunity to experience and learn about the natural environment. It wants to help people take more responsibility for their environment, putting local communities in control and making it easier for people to take positive action.</p> <p>(iv) <u>International and EU leadership</u></p> <p>The global ambitions are:</p> <ul style="list-style-type: none"> • <i>internationally, to achieve environmentally and socially sustainable economic growth, together with food, water, climate and energy security; and</i> • <i>to put the EU on a path towards environmentally sustainable, low-carbon and resource-efficient growth, which is resilient to climate change, provides jobs and supports the wellbeing of citizens.</i>
<p>UK National Ecosystem Assessment (2011)</p>	<p>The UK National Ecosystem Assessment is the first analysis of the UK's natural environment and the benefits it provides to society and economic prosperity. The assessment leads on from the Millennium Ecosystem Assessment (2005) and analyses services provided by ecosystem set against eight broad habitat types. The ecosystem services provided by these habitat types have been assessed to find their overall condition. The assessment sought to answer ten key questions:</p> <ol style="list-style-type: none"> 1) What are the status and trends of the UK's ecosystems and the services they provide to society? 2) What are the drivers causing changes in the UK's ecosystems and their services? 3) How do ecosystem services affect human well-being, who and where are the beneficiaries, and how does this affect how they are valued and managed? 4) Which vital UK provisioning services are not provided by UK ecosystems?

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Biodiversity, Flora and Fauna	
	5) What is the current public understanding of ecosystem services and the benefits they provide? 6) Why should we incorporate the economic values of ecosystem services into decision-making? 7) How might ecosystems and their services change in the UK under plausible future scenarios? 8) What are the economic implications of different plausible futures? 9) How can we secure and improve the continued delivery of ecosystem services? 10) How have we advanced our understanding of the influence of ecosystem services on human well-being and what are the knowledge constraints on more informed decision making?
DEFRA Guidance for Local Authorities on Implementing Biodiversity Duty (2007)	The Duty is set out in Section 40 of the Natural Environment and Rural Communities Act (NERC) 2006, and states that: “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Particular areas of focus include: Policy, Strategy and Procurement; Management of Public Land and Buildings; Planning, Infrastructure and Development; and Education, Advice and Awareness.
CABE Making Contracts Work for Wildlife: How to Encourage Biodiversity in Urban Parks (2006)	Advises on how to make the most of the potential for biodiversity in urban parks and it shows how the commitment of individuals and employers can make the difference between failure and inspiring success.
Vale of Aylesbury Local Plan 2013 - 2033	The adopted Local Plan, which covers the area of proposed development Site D-AGT1, seeks to ensure that development adheres to relevant policies within the Plan which will protect and enhance the local environment. The Aylesbury South Masterplan SPD is outlined within the Local Plan as a component of the strategic policy, which allocates the site as part of delivering the ‘Garden Town’ status.
Stoke Mandeville Neighbourhood Development Plan 2021 – 2033 (emerging)	The emerging Stoke Mandeville Neighbourhood Development Plan seeks to incorporate the Aylesbury Garden Town project into the Plan and aims to take a holistic view on the need to ensure comprehensive planning of the whole Parish. The SPD will be required to adhere to the relevant supporting policies outlined within the Plan, to ensure the development provides seamless interaction with the community.
Forward to 2030: Biodiversity Action Plan More, Bigger, Better and More Joined-up across Buckinghamshire and Milton Keynes	This plan aims to build upon the previous Biodiversity Action Plan (BAP), the timeline of which completed in 2020, produced by the partnership of the Buckinghamshire and Milton Keynes councils. The plan aims to ensure that the unique local environment and biodiversity is promoted and protected, where local residents can connect to nature and promote health benefits. The BAP serves as the interim Biodiversity Strategy, with a focus on nature’s recovery, until such time as formal Local Nature Recovery Strategies are finalised to cover Buckinghamshire and Milton Keynes, and includes the following: <ul style="list-style-type: none"> • Extends the Priority Habitats biodiversity targets, set out in our Forward to 2020 Biodiversity Action Plan, to 2030. • Retains a focus on Biodiversity Opportunity Areas for the Plan’s spatial delivery. • Includes a series of broader, but connected and supporting objectives and principles, which together encourage the creation, improvement and connection of a broader range of habitats to achieve the Lawton principles of “<i>more, bigger, better and more joined-up</i>”.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Biodiversity, Flora and Fauna	
	<ul style="list-style-type: none">• Provides tailored example actions needed to achieve the aim and objectives and follow the principles within specific landscape character areas within Buckinghamshire and Milton Keynes, using Natural England's National Character Areas as a guide, as well as across the area as a whole.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Climate change	
UN Framework Convention on Climate Change (1992)	Sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change.
UN Paris Climate Change Agreement (2015)	The Paris Agreement builds upon the UN Framework Convention on Climate Change. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C.
IPCC Kyoto Protocol to the United Nations Framework Convention on Climate Change (1997)	Commits member nations to reduce their emissions of carbon dioxide and other greenhouse gases or engage in emissions trading if they maintain or increase emissions of these gases.
European Sustainable Development Strategy (2006)	This Strategy identifies key priorities for an enlarged Europe. This includes health, social inclusion and fighting global poverty. It aims to achieve better policy integration in addressing these challenges, and to ensure that Europe looks beyond its boundaries in making informed decisions about sustainability. The Sustainable Development Strategy was reviewed in 2009 and “underlined that in recent years the EU has mainstreamed sustainable development into a broad range of its policies. In particular, the EU has taken the lead in the fight against climate change and the promotion of a low-carbon economy. At the same time, unsustainable trends persist in many areas and the efforts need to be intensified”. Sustainable development is a key focus of the EU and the strategy continues to be monitored and reviewed.
European Floods Directive (2007)	Requires Local Authorities to feed into the Preliminary Flood Risk Assessment, as well as the Local Flood Risk Strategy (already completed) and ensure that objectives within Local Plans compliment the objectives of the Directive.
UK Renewable Energy Strategy (2009)	The UK has committed to sourcing 15% of its energy from renewable sources by 2020 – an increase in the share of renewables from about 2.25% in 2008. The Renewable Energy Strategy sets out how the Government will achieve this target through utilising a variety of mechanisms to encourage Renewable Energy provision in the UK. This includes streamlining the planning system, increasing investment in technologies as well as improving funding for advice and awareness raising.
UK Renewable Energy Roadmap Update (2013)	This is the second Update to the 2011 Renewable Energy Roadmap. It sets out the progress that has been made and the changes that have occurred in the sector over the past year. It also describes the continuing high ambitions and actions along with the challenges going forward.
The UK Low Carbon Transition Plan (2009)	<p>The UK Low Carbon Transition Plan sets out how the UK will meet the Climate Change Act's legally binding target of a 34% cut in emissions on 1990 levels by 2020. It also seeks to deliver emissions cuts of 18% on 2008 levels.</p> <p>The main aims of the Transition Plan include the following:</p> <ul style="list-style-type: none"> Producing 30% of energy from renewables by 2020;

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Climate change	
	<ul style="list-style-type: none"> • Improving the energy efficiency of existing housing; • Increasing the number of people in 'green jobs'; and • Supporting the use and development of clean technologies.
<p>National Planning Policy Framework (MHCLG, 2021)</p>	<p>The NPPF seeks to streamline the planning system and sets out the Government's planning policies and how these should be applied. At the heart of the NPPF is presumption in favour of sustainable development.</p> <p>The NPPF includes guidance on climate change, flooding, and coastal change. Plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.</p> <p>To increase the use and supply of renewable and low carbon energy and heat, plans should:</p> <ul style="list-style-type: none"> • provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts); • consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and • identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers. • Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change, by: <ul style="list-style-type: none"> • applying the sequential test and then, if necessary, applying the exception test; • safeguarding land from development that is required for current and future flood management; • using opportunities offered by new development to reduce the causes and impacts of flooding; and • where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to facilitate the relocation of development, including housing, to more sustainable locations.
<p>Department for Transport: An Evidence Base Review of Public</p>	<p>This is a summary report of the findings of an evidence base review investigating the research base on public attitudes towards climate change and transport behaviour.</p>

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Climate change	
Attitudes to Climate Change and Transport Behaviour (2006)	
Carbon Trust: The Climate Change Challenge: Scientific Evidence and Implications (2005)	This report summarises the nature of the climate change issue. It explains the fundamental science and the accumulating evidence that climate change is real and needs to be addressed. It also explains the future potential impacts, including the outstanding uncertainties.
Energy Saving Trust: Renewable Energy Sources for Homes in Urban Environments (2005)	This document provides information about the integration of renewable energy sources into new and existing dwellings in urban environments. It covers the basic principles, benefits, limitations, costs and suitability of various technologies.
HM Government: The Road to Zero (2018)	This report outlines how the Government will support the transition to zero-emission road transport. This includes measures to reduce emissions from vehicles including specific targets for Heavy Goods Vehicles (HGVs), promoting low- and zero- emission cars and developing high quality electric vehicle infrastructure networks.
Environment Agency, Adapting to Climate Change: A Checklist for Development (2005)	The document contains a checklist and guidance for new developments to adapt to climate change. The main actions are summarised in a checklist.
Environment Agency: Building a Better Environment: A Guide for Developers (2013)	Guidance on addressing key environmental issues through the development process (focusing mainly on the issues dealt with by the Environment Agency), including managing flood risk, surface water management, use of water resources and preventing pollution.
DECC Energy White Paper: Meeting the Energy Challenge (2007)	<p>Sets out Government's long-term energy policy, including requirements for cleaner, smarter energy; improved energy efficiency; reduced carbon emissions; and reliable, competitive and affordable supplies. The White Paper sets out the UK's international and domestic energy strategy, in the shape of four policy goals:</p> <ul style="list-style-type: none"> • aiming to cut CO₂ emissions by some 60% by about 2050, with real progress by 2020; • maintaining the reliability of energy supplies; • promoting competitive markets in the UK and beyond; and • ensuring every home is heated adequately and affordably.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Climate change	
Department of Energy and Climate Change: Microgeneration Strategy (2011)	The strategy aims to improve the effectiveness of the Microgeneration Certification Scheme (MCS), enable policy makers and industry to understand the consumer protection structure and suitably sign post schemes in policy and create regulatory environment and assessment framework that enables accurate representation of contribution of microgeneration technologies to low carbon homes and buildings.
Vale of Aylesbury Local Plan 2013 - 2033	The adopted Local Plan, which covers the area of proposed development Site D-AGT1, seeks to ensure that development adheres to relevant policies within the Plan which will protect and enhance the local environment. The Aylesbury South Masterplan SPD is outlined within the Local Plan as a component of the strategic policy, which allocates the site as part of delivering the 'Garden Town' status.
Vision and Principles for the Improvement of Green Infrastructure in Buckinghamshire and Milton Keynes (2016)	The document sets out what is meant by "green infrastructure", the collective vision for green infrastructure in Buckinghamshire and Milton Keynes, and the considerations that should be taken into account when planning for green infrastructure, from strategic scales to individual projects. The document seeks to use the principles to influence and advocate good practice at all development scales within Buckinghamshire and Milton Keynes. This document is accompanied by Green Infrastructure opportunities mapping.
Buckinghamshire Green Infrastructure Delivery Plan (2013)	The Buckinghamshire Green Infrastructure Delivery Plan builds on the GI planning framework and has been developed in parallel with work to enable the Buckinghamshire and Milton Keynes Natural Environment Partnership (Local Nature Partnership or NEP) which was set up from 2011. The GI Delivery Plan identifies a suite of area specific GI proposals and projects within the strategic GI framework, which the NEP can begin taking forward with other key stakeholders. It also provides guidance on how these can be achieved, plus notes on synergies with other complementary projects, potential funding streams and governance models.
Stoke Mandeville Neighbourhood Development Plan 2021 – 2033 (emerging)	The emerging Stoke Mandeville Neighbourhood Development Plan seeks to incorporate the Aylesbury Garden Town project into the Plan and aims to take a holistic view on the need to ensure comprehensive planning of the whole Parish. The SPD will be required to adhere to the relevant supporting policies outlined within the Plan, to ensure the development provides seamless interaction with the community.
Buckinghamshire County Council: Climate Change and Air Quality Strategy (2021)	<p>The strategy seeks to reduce emissions, improve air quality and adapt to climate change and sets out the following targets to achieve aims through various objectives including:</p> <ul style="list-style-type: none"> • Achieve net zero carbon emissions across council operations no later than 2050 and possibly before this, potentially by 2030, subject to resources. • Support communities to achieve net zero carbon emissions <p>The strategy guides activity for nearly 30 years, and sets out actions required to meet the targets outlined within the document.</p>
Aylesbury Transport Strategy (2017)	The strategy is intended to address current issues on the transport network and accommodate future planned growth. Additionally, it allows for the single coordinated approach to planning improvements and contains objectives aimed at improving transport connectivity

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Climate change	
	within Aylesbury town, air quality and pollution and accessibility to other urban centres and new growth areas outside Aylesbury town, such as the site of the Aylesbury South Masterplan SPD.
Buckinghamshire County Council: Local Flood Risk Management Strategy (2015)	The strategy seeks to explain the current understanding of flood risk across the county and ensure that development does not increase flood risk, for example through encouraging the use of sustainable drainage techniques and working with natural processes.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Historic environment	
UNESCO World Heritage Convention (1972)	<p>The Convention stipulates the obligation of States Parties to report regularly to the World Heritage Committee on the state of conservation of their World Heritage properties. These reports are crucial to the work of the Committee as they enable it to assess the conditions of the sites, decide on specific programme needs and resolve recurrent problems.</p> <p>Strategic Objectives, the “Five C’s”, are:</p> <ul style="list-style-type: none"> • Credibility; • Conservation; • Capacity-building; • Communities; and • Communication.
Council of Europe: European Landscape Convention (2006)	Aims to promote the protection, management and planning (including active design and creation of Europe’s landscapes, both rural and urban, and to foster European co-operation on landscape issues.
Council of Europe: Convention on the Protection of the Architectural Heritage of Europe (1985)	Aims for signatories to protect their architectural heritage by means of identifying monuments, buildings and sites to be protected; preventing the disfigurement, dilapidation or demolition of protected properties; providing financial support by the public authorities for maintaining and restoring the architectural heritage on its territory; and supporting scientific research for identifying and analysing the harmful effects of pollution and for defining ways and means to reduce or eradicate these effects.
Council of Europe: The Convention on the Protection of Archaeological	The convention defines archaeological heritage and identifies measures for its protection. Aims include integrated conservation of the archaeological heritage and financing of archaeological research and conservation.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Historic environment	
Heritage (Revised) (Valetta Convention) (1992)	
DCMS Ancient Monuments and Archaeological Areas Act (1979)	An act to consolidate and amend the law retain to ancient monuments, to make provision of matters of archaeological or historic interest, and to provide grants by secretary of state to the Architectural Heritage fund.
National Planning Policy Framework (MHCLG, 2021)	<p>The NPPF seeks to streamline the planning system and sets out the Governments planning policies and how these should be applied. At the heart of the NPPF is presumption in favour of sustainable development.</p> <p>The NPPF and related guidance given within the PPG includes direction on conserving and enhancing the historic environment. It seeks to ensure local authorities plan recognise heritage assets as an irreplaceable resource and conserve them in a manner that reflects their significance.</p> <p>Local planning authorities should take into account:</p> <ul style="list-style-type: none"> • the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation; • the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring; • the desirability of new development making a positive contribution to local character and distinctiveness; and opportunities to draw on the contribution made by the historic environment to the character of a place.
Planning Practice Guidance (2019)	Advises on various topics in relation to planning, including the enhancement and conservation of the historic environment. Topics within the PPG regarding heritage assets includes plan making, decision making, designated and non-designated heritage assets, heritage consent and consultation.
Planning (Listed Buildings and Conservation Areas) Act (1990)	An act to consolidate certain enactments relating to special controls in respect of buildings and areas of special architectural or historic interest with amendments to give effect to recommendations to give effect to recommendations of the Law Commissions.
Circular on the Protection of World Heritage Sites, CLG 07/2009 2	<p>The purpose of this circular, which applies only to England, is to provide updated policy guidance on the level of protection and management required for World Heritage Sites.</p> <p>The circular explains the national context and the Government’s objectives for the protection of World Heritage Sites, the principles which underpin those objectives, and the actions necessary to achieve them.</p>
Office of the Deputy Prime minister (ODPM) Secure and Sustainable Buildings Act (2004)	Amends the Building act, and others, with regard to sustainable construction practices and conservation of historic buildings. Also states the general nature of security provisions which should be in place at the construction stage and beyond.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Historic environment	
Heritage 2020: strategic priorities for England's historic environment 2015-2020	<p>Over the next five years the commitment to the Heritage 2020 framework will achieve a step change in the understanding, valuing, caring and enjoyment of the historic environment of England. The vision concentrates on five strategic areas:</p> <ul style="list-style-type: none"> • Discovery, identification & understanding • Constructive conservation and sustainable management • Public engagement • Capacity building • Helping things to happen.
Historic England: Historic Environment Good Practice Advice in Planning Note 1, 2 and 3 (2015)	<p>These three notes provide information on good practice to assist local authorities, planning and other consultants, owners, applicants and other interested parties in implementing historic environment policy in the National Planning Policy Framework (NPPF) and the related guidance given in the PPG.</p>
Chilterns AONB Management Plan 2019 - 2024	<p>This management plan of the Chilterns AONB sets out a series of policies and actions that, through effective long-term planning and decision making, aim to:</p> <ul style="list-style-type: none"> • Conserve and enhance the natural beauty of the Chilterns • Enhance public understanding and enjoyment of the special quality of the AONB <p>The management plans notes the special qualities of the AONB to be protected, including panoramic views which can be harmed by development, and has produced Position Statements on Development Affecting the Setting of the Chilterns AONB and their cumulative impacts, to help protect the long-term interests of the landscape.</p>
Vale of Aylesbury Local Plan 2013 - 2033	<p>The adopted Local Plan, which covers the area of proposed development Site D-AGT1, seeks to ensure that development adheres to relevant policies within the Plan which will protect and enhance the local environment. The Aylesbury South Masterplan SPD is outlined within the Local Plan as a component of the strategic policy, which allocates the site as part of delivering the 'Garden Town' status.</p>
Stoke Mandeville Neighbourhood Development Plan 2021 – 2033 (emerging)	<p>The emerging Stoke Mandeville Neighbourhood Development Plan seeks to incorporate the Aylesbury Garden Town project into the Plan and aims to take a holistic view on the need to ensure comprehensive planning of the whole Parish. The SPD will be required to adhere to the relevant supporting policies outlined within the Plan, to ensure the development provides seamless interaction with the community.</p>

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Landscape	
Council of Europe: European Landscape Convention (2006)	Aims to promote the protection, management and planning (including active design and creation of Europe's landscapes, both rural and urban, and to foster European co-operation on landscape issues.
National Planning Policy Framework (MHCLG, 2021)	The NPPF and related guidance given within the PPG states that development could seek to promote or reinforce local distinctiveness; both aesthetic considerations and connections between people and places should be considered. The NPPF also promotes the protection and enhancements of valued landscapes, giving greatest weight to National Parks and Areas of Outstanding Natural Beauty.
English Heritage and CABE: Guidance on Tall Buildings (2007)	Provides advice and guidance on good practice in relation to tall buildings in the planning process and to highlight other related issues, which need to be considered, i.e. where tall buildings would and would not be appropriate.
Vale of Aylesbury Local Plan 2013 - 2033	The adopted Local Plan, which covers the area of proposed development Site D-AGT1, seeks to ensure that development adheres to relevant policies within the Plan which will protect and enhance the local environment. The Aylesbury South Masterplan SPD is outlined within the Local Plan as a component of the strategic policy, which allocates the site as part of delivering the 'Garden Town' status.
Stoke Mandeville Neighbourhood Development Plan 2021 – 2033 (emerging)	The emerging Stoke Mandeville Neighbourhood Development Plan seeks to incorporate the Aylesbury Garden Town project into the Plan and aims to take a holistic view on the need to ensure comprehensive planning of the whole Parish. The SPD will be required to adhere to the relevant supporting policies outlined within the Plan, to ensure the development of Site D-AGT1 provides seamless interaction with the community.
Chilterns AONB Management Plan 2019 - 2024	<p>This management plan of the Chilterns AONB sets out a series of policies and actions that, through effective long-term planning and decision making, aim to:</p> <ul style="list-style-type: none"> • Conserve and enhance the natural beauty of the Chilterns • Enhance public understanding and enjoyment of the special quality of the AONB <p>The management plans notes the special qualities of the AONB to be protected, including panoramic views which can be harmed by development, and has produced Position Statements on Development Affecting the Setting of the Chilterns AONB and their cumulative impacts, to help protect the long-term interests of the landscape.</p>
Buckinghamshire County Council: Aylesbury Landscape Character Assessment (2008)	Explains the modern concepts of landscape and landscape character. Summarises the 13 landscape character types.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
Water	
European Water Framework Directive (2000)	This provides an overarching strategy, including a requirement for EU Member States to ensure that they achieve 'good ecological status' by 2015. River Basin Management Plans were defined as the key means of achieving this. They contain the main issues for the water environment and the actions we all need to take to deal with them.
HM Government Strategy for Sustainable Construction (2008)	This Strategy encourages the construction industry to adopt a more sustainable approach towards development and identifies eleven themes for targeting action, which includes conserving water resources.
DEFRA: The Water Environment (Water Framework Directive) (England and Wales) Regulations (2003)	<p>Requires all inland and coastal waters to reach 'good status' by 2015. It mandates that:</p> <ul style="list-style-type: none"> • development must not cause a deterioration in status of a waterbody; and • development must not prevent future attainment of 'good status', hence it is not acceptable to allow an impact to occur just because other impacts are causing the status of a water body to already be less than good. <p>This is being done by establishing a river basin district structure within which demanding environmental objectives are being set, including ecological targets for surface waters.</p>
Environment Agency: Building a Better Environment: A Guide for Developers (2013)	Guidance on addressing key environmental issues through the development process (focusing mainly on the issues dealt with by the Agency), including managing flood risk, surface water management, use of water resources, preventing pollution.
European Nitrates Directive (1991)	The European Nitrates Directive aims to protect water quality across Europe by preventing nitrates from agricultural sources polluting ground and surface waters and by promoting the use of good farming practices.
European Drinking Water Directive (1998)	The Drinking Water Directive sole aim is to is to protect human health from adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean
European Landfill Directive (1999)	This Directive aims to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from the landfilling of waste, during the whole lifecycle of the landfill.
European Urban Waste Water Directive (1991)	<p>The Directive's main objective is to protect the environment from the adverse effects of urban waste water discharges and discharges from certain industrial sectors and concerns the collection, treatment and discharge of:</p> <ul style="list-style-type: none"> • Domestic wastewater; • Mixture of wastewater; and • Wastewater from certain industrial sectors.

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
<p>Environment Agency: Water for people and the environment - A Strategy for England and Wales (2009)</p>	<p>The strategy looks at the steps needed, in the face of climate change, to manage water resources to the 2040s and beyond, with the overall aim of improving the environment while allowing enough water for human uses.</p> <p>The strategy sets out actions with the aim to:</p> <ul style="list-style-type: none"> • support housing and associated development where the environment can cope with the additional demands placed on it; • allow a targeted approach where stress on water resources is greatest; • ensure water is used efficiently in homes and buildings, and by industry and agriculture; • provide greater incentives for water companies and individuals to manage demand; • share existing water resources more effectively; • further reduce leakage; • ensure that reliable options for resource development are considered; and • allocate water resources more effectively in the future.
<p>DEFRA (2015) Water for Life and Livelihoods: River Basin Management Plan, Thames River Basin District</p>	<p>River Basin Management Plans are prepared under the Water Framework Directive in order to identify the pressures facing the water environment and identify actions to address these pressures. Within the Thames River Basin District, South Bucks and Chiltern lie within both the Thames (Maidenhead to Sunbury) catchment and the Colne catchment.</p> <p>Key actions for the Colne catchment include:</p> <ul style="list-style-type: none"> • Improving flows in the River Misbourne; • Promoting soil and nutrient management plans to local farmers; and • Assess improvements to fish passage on the River Colne at Denham Country Park. <p>Key actions for the Thames (Maidenhead to Sunbury) catchment include:</p> <ul style="list-style-type: none"> • Investigate improvements to sewage treatment works; • Assess the impact of abstraction on the ecology, recreation and navigation of the Lower Thames; and • Carry out further monitoring and investigation to allow targeting of additional measures to improve the status of this catchment.
<p>Environment Agency (2014) Thames Catchment Abstraction Licensing Strategy</p>	<p>Catchment Abstraction Management Strategies (CAMS) set out how water resources are to be managed, particularly in terms of water abstraction and guide decisions regarding granting abstraction licenses. Initial resource assessment indicates that there is no water available for licensing in the Thames catchment. Due to the heavily managed nature of the Thames and its importance to the area, a bespoke licensing strategy has been adopted. This includes a multi-tier Hands Off Flow (HOF), depending on the quantity of new consumptive abstractions.</p>
<p>Thames Water: Water Resources Management Plan 2019</p>	<p>Thames Water provides water supply across part of the Plan area and sewerage services across the entire Plan area. The Water Resources Management Plan (WRMP) sets out how Thames Water plans to maintain the balance between supply and demand for water. This includes forecasting future supply and demand and proposing measures to align these two. The baseline demand is expected to</p>

Plan, policy and/or programme (PPP)	Main objectives and environmental / socio-economic requirements of PPP
	<p>increase by more than 250MI/d and supply is expected to decrease by approximately 90 MI/d between 2015 and 2040. Thames Water aims to meet demand through the following measures:</p> <ul style="list-style-type: none">• Demand management;• Leakage reduction;• New raw water trading agreement with RWE N-Power; and• Groundwater schemes.

Appendix C: Assessment of Reasonable Alternatives

Strategic Environmental Assessment of the D-AGT1 South Aylesbury Supplementary Planning Document

Assessment of Reasonable Alternatives

May 2022



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY



Report for Internal Use Only

Strategic Environmental Assessment of the D-AGT1 South Aylesbury Supplementary Planning Document

Assessment of Reasonable Alternatives

LC-718	Document Control Box
Client	Buckinghamshire Council
Report Title	Strategic Environmental Assessment of the D-AGT1 South Aylesbury Supplementary Planning Document: Draft Assessment of Reasonable Alternatives
Filename	LC-718_Aylesbury_Reasonable_Alternatives_4_180522LB.docx
Date	May 2022
Author	RI
Reviewed	LB
Approved	ND

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The conclusions below are based on the best available information, including information that is publicly available. No attempt to verify these secondary data sources has been made and they have been assumed to be accurate as published.

This report was prepared during May 2022 and is subject to and limited by the information available during this time.

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Client comments can be sent to Lepus using the following address.

Eagle Tower,

Cheltenham

Gloucestershire

GL50 1TA

Telephone: 01242 525222

E-mail: enquiries@lepusconsulting.com

www.lepusconsulting.com

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Acronyms

AA	Appropriate Assessment
DEFRA	Department for Environment, Food and Rural Affairs
HRA	Habitats Regulations Assessment
LGS	Local Green Space
LWS	Local Wildlife Site
MHCLG	Ministry for Housing, Communities and Local Government
NP	Neighbourhood Plan
NPPF	National Planning Policy Framework
ODPM	Office of the Deputy Prime Minister
PPP	Plan, Policy and Programme
PPG	Planning Policy Guidance
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SMNP	Stoke Mandeville Neighbourhood Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SPD	Supplementary Planning Document
VALP	Vale of Aylesbury Local Plan

1 Introduction

1.1 This report

1.1.1 Lepus Consulting has been appointed by Buckinghamshire Council to undertake a Strategic Environmental Assessment (SEA) of the draft D-AGT1 South Aylesbury Supplementary Planning Document (SPD)¹.

1.1.2 The role of SEA is to inform the plan-making group in their selection and assessment of alternatives. The findings of the SEA can help with refining and further developing these reasonable alternatives in an iterative and on-going way. The SEA findings do not form the sole basis for decision-making; other evidence studies, the feasibility of the reasonable alternatives and consultation feedback will also contribute to the decision.

1.1.3 The purpose of this document is to provide an appraisal of the reasonable alternatives considered by the D-AGT1 South Aylesbury SPD during their plan-making process, in line with Article 5 Paragraph 1 of Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment² (SEA Directive):

“Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated”.

1.1.4 Buckinghamshire Council has identified three reasonable alternatives for evaluation in the SEA process:

- D-AGT1 South Aylesbury Draft SPD proposal;
- Stoke Mandeville Neighbourhood Plan (SMNP) draft masterplan proposal; and
- Planning application masterplan submitted by Broadway Malyan (19/O1628/AOP).

¹ Buckinghamshire Council (2022) D-AGT1 South Aylesbury Supplementary Planning Document: Draft for Discussion (March 2022)

² SEA Directive. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN> [Date Accessed: 10/05/22]

- 1.1.5 In this instance, a 'do-nothing' approach would not be appropriate as a reasonable alternative, as Policy D1 within the adopted VALP requires an SPD to be produced in order to co-ordinate development at Site D-AGT1.
- 1.1.6 Each reasonable alternative has been assessed against the SEA Framework, which itself focuses on biodiversity, climate change, cultural heritage, landscape and water.

1.2 The D-AGT1 South Aylesbury Supplementary Plan Document

- 1.2.1 The South Aylesbury Masterplan SPD will provide a framework for the development of the proposed Site D-AGT1, 'South Aylesbury', allocated within the adopted Vale of Aylesbury Local Plan (VALP)³. Site D-AGT1 is a strategic site which forms part of the proposed Aylesbury Garden Town, which is the focus for the majority of Aylesbury District's growth.
- 1.2.2 Site D-AGT1 is proposed to include the development of:
- At least 1,000 dwellings;
 - One primary school;
 - Multi-functional green infrastructure;
 - South-East Aylesbury East Link Road (A413 to B4443 Lower Road);
 - Local Centre; and
 - Cycling and walking links.
- 1.2.3 The SPD takes the proposals from the VALP and outlines the aspirations of the area as well as responses and key issues that will influence the new development. The SPD will be a material consideration, which expands on policies set out in the VALP, to help guide the preparation and assessment of future planning applications within the site.

1.3 Relationship to the Vale of Aylesbury Local Plan

- 1.3.1 The SPD is a planning document, produced at the local level to provide more detail, advice or guidance on local policies. This SPD sets out the agreed strategy for mitigating the impact of new development on the environment, by ensuring that the Masterplan is comprehensive in regard to the delivery of future development and its implications within Buckinghamshire Council, arising as a consequence of the VALP.

³ Buckinghamshire Council (2021) Vale of Aylesbury Local Plan (VALP) 2013 – 2033. Available at: https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/Aylesbury_local_plan_L46JWaT.pdf [Date Accessed: 17/05/22]

1.3.2 The purpose of the SPD is to provide further guidance and information for the development of the strategic allocated site D-AGT1 which has been proposed in the adopted VALP. The strategy for mitigation includes retaining and enhancing on-site GI and habitats, providing improved transport links including walking and cycle paths as well as public transport infrastructure, and a requirement to carry out detailed modelling with regards to flood risk and water management. The SPD does not seek to introduce any new policies.

1.4 Best Practice SEA Guidance

1.4.1 A range of documents have informed the approach to the SEA of the D-AGT1 South Aylesbury SPD, including national guidance and best practice standards set out for SEA:

- National Planning Policy Framework (NPPF) (July 2021);
- Planning Practice Guidance (June 2021);
- Natural Environment and Rural Communities Act (2006): Biodiversity Duty (sections 40 and 41 of the Natural Environment and Rural Communities Act 2006);
- HM Government's 'A Green Future: Our 25 Year Plan to Improve the Environment' (2018);
- Environment Act (2021);
- Biodiversity Action Plan: Forward to 2030 for Buckinghamshire and Milton Keynes;
- Vision and Principles for the Improvement of Green Infrastructure in Buckinghamshire and Milton Keynes (2018) and the accompanying Green Infrastructure opportunities mapping (2018);
- Buckinghamshire Green Infrastructure Delivery Plan (2013) and Strategy (2009);
- Transport schemes under Policy T2 (Supporting and Protecting Transport Schemes) as within the adopted VALP (2013-2033);
- Infrastructure provision under Policy S5 of the adopted VALP;
- Policies D2 and D4 which regard residential development delivery as within the adopted VALP (2013-2033); and
- Other relevant Local Plan policies.

2 Methodology

2.1 Screening

2.1.1 The SEA Screening report⁴ (October 2021) reviewed the extent to which the D-AGT1 South Aylesbury SPD could potentially result in significant effects on the environment.

2.1.2 Annex 1(f) of the SEA Directive⁵ requires that the SEA process should consider:

“The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors”.

2.1.3 The Screening Report concluded that the D-AGT1 South Aylesbury SPD would be likely to have a significant environmental impact on the surrounding area and would therefore require an SEA in relation to:

- Biodiversity;
- Climate Change;
- Cultural Heritage; and
- Landscape.

2.2 Habitats Regulations Assessment

2.2.1 In 2021, a Habitats Regulations Assessment (HRA) Screening of the AGT-1 South Aylesbury SPD was completed under the Conservation of Habitats and Species Regulations 2018⁶ where the D-AGT1 South Aylesbury SPD was screened in line with these regulations. The HRA Screening concludes that an Appropriate Assessment (AA) is required regarding associated recreational pressure on Chiltern Beechwoods SAC, in relation to the development of Site D-AGT1 as outlined within the SPD.

⁴ Lepus Consulting (2021) Strategic Environmental Assessment of the Aylesbury South Masterplan Supplementary Planning Document - SEA Screening Document [Date Accessed: 09/02/22]

⁵ European Union (2001) SEA Guidance, Available at: http://ec.europa.eu/environment/archives/eia/pdf/030923_sea_guidance.pdf [Date Accessed: 09/02/22]

⁶ UK Government (2018) The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018 Available at: http://www.legislation.gov.uk/ukxi/2018/1307/pdfs/ukxi_20181307_en.pdf [Date Accessed: 09/02/22]

2.3 SEA scoping stage

- 2.3.1 Following screening, the second stage of the SEA process was the scoping stage. The D-AGT1 South Aylesbury Scoping Report was prepared by Lepus Consulting in December 2021⁷. This represented Stage B of SEA, according to the strategic environmental assessment requirements⁸.
- 2.3.2 In considering the scope and level of detail of the information that must be included in the SEA process, and importantly the environmental report, the Scoping Report identified biodiversity, climate change, cultural heritage and landscape issues associated with Site D-AGT1.
- 2.3.3 The topic of 'water' has since been scoped into the SEA process to reflect comments received during consultation on the Scoping Report from the Environment Agency concerning water resources and wastewater relating to Site D-AGT1.
- 2.3.4 All other topics in Annex 1(f) of the SEA Directive have been scoped out of further consideration in the assessment process.

2.4 Assessment of Reasonable Alternatives

- 2.4.1 The assessment process has used the SEA Framework, the review of plans, programmes and policies, and the baseline (including various mapped data sources), as presented in the SEA Scoping Report, to assess each reasonable alternative. The precautionary principle⁹ is applied to all assessments.
- 2.4.2 When evaluating significance of effect, the SEA draws on criteria in Annex II of the SEA Directive (see **Box 2.1**) and identifies a significance value using the guide in **Table 2.1**.

⁷ Lepus Consulting (2019) Strategic Environmental Assessment of the Creech St Michael Neighbourhood Development Plan: Scoping Report.

⁸ MHCLG (2015) Strategic environmental assessment and sustainability appraisal: Sustainability appraisal requirements for local plans and spatial development strategies. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Date Accessed: 06/05/22]

⁹ Judgment of 7 September 2004 in case C-127/02 (Waddenzee, paragraph 45).

Box 2.1: Annex II of the SEA Directive¹⁰

Criteria for determining the likely significance of effects referred to in Article 3(5) of the SEA Directive

The characteristics of plans and programmes, having regard, in particular, to:

- the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources;
- the degree to which the plan or programme influences other plans and programmes including those in a hierarchy;
- the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;
- environmental problems relevant to the plan or programme; and
- the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste- management or water protection).

Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:

- the probability, duration, frequency and reversibility of the effects;
- the cumulative nature of the effects;
- the transboundary nature of the effects;
- the risks to human health or the environment (e.g. due to accidents);
- the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);
- the value and vulnerability of the area likely to be affected due to:
 - special natural characteristics or cultural heritage;
 - exceeded environmental quality standards or limit values;
 - intensive land-use; and
- the effects on areas or landscapes which have a recognised national, Community or international protection status.

¹⁰ EU Council (2001) Directive 2001/42/EC. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN> [Date Accessed: 18/05/22]

Table 2.1: Guide to scoring significant effects

Significance	Definition (not necessarily exhaustive)
Major Negative --	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Permanently degrade, diminish or destroy the integrity of a quality receptor, such as a feature of international, national or regional importance; • Cause a very high-quality receptor to be permanently diminished; • Be unable to be entirely mitigated; • Be discordant with the existing setting; and/or • Contribute to a cumulative significant effect.
Minor Negative -	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Not quite fit into the existing location or with existing receptor qualities; and/or • Affect undesignated yet recognised local receptors.
Negligible 0	Either no impacts are anticipated, or any impacts are anticipated to be negligible.
Uncertain +/-	It is entirely uncertain whether impacts would be positive or adverse.
Minor Positive +	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Improve undesignated yet recognised receptor qualities at the local scale; • Fit into, or with, the existing location and existing receptor qualities; and/or • Enable the restoration of valued characteristic features.
Major Positive ++	The size, nature and location of a reasonable alternative would be likely to: <ul style="list-style-type: none"> • Enhance and redefine the location in a positive manner, making a contribution at a national or international scale; • Restore valued receptors which were degraded through previous uses; and/or • Improve one or more key elements/features/characteristics of a receptor with recognised quality such as a specific international, national or regional designation.

2.4.3 The results of the assessment will apply a single value from **Table 2.1** to the corresponding SEA Objective for each reasonable alternative or any other part of the plan which is being assessed as part of the SEA. Justification for the likely impact and corresponding score is presented in an accompanying narrative assessment text.

2.5 Significance

2.5.1 Where an environmental impact has been identified, the significance of effect has been categorised as minor or major. **Table 2.1** lists the significance matrix and explains the terms used. The nature of the significant effect can be either beneficial or adverse depending on the proposal.

- 2.5.2 Each reasonable alternative that has been assessed in this report has been scored according to its predicted performance in relation to the SEA Objectives in the Framework, using the values in **Table 2.1**.
- 2.5.3 It is important to note that the scores are high level indicators. The narrative assessment text which details the key decision-making criteria behind each awarded score should always be read alongside the score. Assumptions and limitations to the scores are presented in **Table 2.4** and **sections 2.7** and **2.8**.
- 2.5.4 Significance of effect is a combination of impact sensitivity and magnitude.

2.6 Impact sensitivity

- 2.6.1 Impact sensitivity is measured through consideration as to how the receiving environment will be impacted by a Plan proposal. This includes assessment of the value and vulnerability of the area, whether environmental quality standards will be exceeded, and if impacts will affect, for example, designated areas.
- 2.6.2 A guide to the range of scales used in the impact significance matrix is presented in **Table 2.2**. For most receptors, sensitivity increases with geographic scale.

Table 2.2: Geographic scales of receptors

Scale	Typical criteria
International/ national	Designations that have an international aspect or consideration of transboundary effects beyond national boundaries. This applies to effects and designations/receptors that have a national or international dimension.
Regional	This includes the regional and sub-regional scale, including county-wide level and regional areas.
Local	This is the district and neighbourhood scale.

2.7 Impact magnitude

- 2.7.1 Impact magnitude relates to the degree of change the receptor will experience, including the probability, duration, frequency and reversibility of the impact. Impact magnitude is determined based on the susceptibility of a receptor to the type of change that will arise, as well as the value of the affected receptor (see **Table 2.3**).

Table 2.3: Impact magnitude

Impact magnitude	Typical criteria
High	Likely total loss of or major alteration to the receptor in question; <ul style="list-style-type: none"> • Provision of a new receptor/feature; or • The impact is permanent and frequent.
Medium	Partial loss/alteration/improvement to one or more key features; or The impact is one of the following: <ul style="list-style-type: none"> • Frequent and short-term; • Frequent and reversible; • Long-term (and frequent) and reversible; • Long-term and occasional; • Permanent and occasional.
Low	Minor loss/alteration/improvement to one or more key features of the receptor; or The impact is one of the following: <ul style="list-style-type: none"> • Reversible and short-term; • Reversible and occasional; or • Short-term and occasional.

2.8 Predicting effects

2.8.1 SEA is a tool for predicting potential significant effects. Predicting effects relies on an evidence-based approach and incorporates professional judgement. It is often not possible to state with absolute certainty whether effects will occur, as many impacts are influenced by a range of factors such as the design and the success of mitigation measures.

2.8.2 The assessments in this report are based on the best available information. Every attempt has been made to predict effects as accurately as possible.

2.8.3 SEA operates at a strategic level which uses available secondary data for the relevant SEA Objective. All reasonable alternatives are assessed in the same way using the same method. Sometimes, in the absence of more detailed information, forecasting the potential impacts of development can require making reasonable assumptions based on the best available data and trends.

2.9 Assessment assumptions

2.9.1 Assumptions have been used to help incorporate proportionality to the SEA of reasonable alternatives. In terms of published policy guidance, it is assumed that the following policies will apply to Site D-AGT1 and surrounding environments, and have been borne in mind when completing the assessment of reasonable alternatives:

- Adopted VALP 2013 – 2033 policies¹¹;
- The Chilterns AONB Management Plan 2019-2024; and
- The NPPF (2021)¹² and related PPG advice¹³.

2.9.2 Other topic-specific assumptions have been applied to the report. These are presented in **Table 2.4**.

Table 2.4: Assumptions for the SEA Objectives

SEA Objective	Assessment Assumptions
<p>1. Biodiversity: Protect, enhance, restore and manage the flora, fauna biodiversity and geodiversity assets of the areas affected by the development of Site D-AGT1.</p>	<p>The biodiversity objective considers adverse impacts of the proposed development at a landscape-scale. It focuses on an assessment of proposed development on a network of designated and undesignated sites, wildlife corridors and individual habitats within and surrounding Site D-AGT1. Receptors include the following:</p> <p>Designated Sites:</p> <ul style="list-style-type: none"> • Habitats sites; (Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites). • Sites of Special Scientific Interest (SSSI). • National Nature Reserves (NNR). • Local Nature Reserves (LNR). • Local Wildlife Sites (LWS). • Local Geological Sites (LGS). <p>Habitats and Species:</p> <ul style="list-style-type: none"> • Ancient woodland. • Priority habitats. <p>Negative impacts would be expected where the ecological or geological designations listed above may be harmed or lost as a result of proposals. The assessment is largely based on a consideration of the proximity of a site and the attributes and qualities of the receptor in question.</p> <p>For the purposes of this assessment, impacts on priority habitats protected under the 2006 NERC Act¹⁴ have been considered in the context of Natural England’s publicly available Priority Habitat Inventory database¹⁵. It is acknowledged this may not reflect current local site conditions in all instances.</p> <p>It is assumed that construction and occupation of previously undeveloped greenfield land would result in a net reduction in vegetation cover and Green Infrastructure in the Plan</p>

¹¹ Buckinghamshire Council (2021) Vale of Aylesbury Local Plan (VALP) 2013 – 2033. Available at: https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/Aylesbury_local_plan_L46JWaT.pdf [Date Accessed: 17/05/22]

¹² Ministry of Housing, Communities & Local Government (2021) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Date Accessed: 17/05/22]

¹³ Ministry of Housing, Communities & Local Government (2021) Planning Practice Guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> [Date Accessed: 17/05/22]

¹⁴ Natural Environment and Rural Communities Act 2006. Available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents> [Date Accessed: 10/05/22]

¹⁵ Natural England (2021) Priority Habitat Inventory (England). Available at: <https://data.gov.uk/dataset/4b6ddb7-6c0f-4407-946e-d6499f19fcde/priority-habitat-inventory-england> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
	<p>area. Development proposals which would be likely to result in the loss of greenfield land are therefore expected to contribute towards a cumulative loss in vegetation cover. This would also be expected to lead to greater levels of fragmentation and isolation across the wider ecological network, such as the loss of habitat stepping-stones and corridors.</p> <p>It should be noted that no detailed ecological surveys have been completed by Lepus to inform the assessments made in this report.</p> <p>It is anticipated that the Council will require detailed ecological surveys and assessments to accompany future planning applications. Such surveys will determine on a site-by-site basis the presence of Priority Species and Priority Habitats protected under the NERC Act.</p> <p>It is assumed that the loss of biodiversity assets, such as ancient woodland or an area of priority habitat, are permanent effects.</p> <p>It is assumed that mature trees and hedgerows will be retained where possible.</p> <p>Where development proposals coincide with a Habitats site, a SSSI, NNR, LNR, CWS, CGS or ancient woodland, or are adjacent to a Habitats site, SSSI or NNR, it is assumed that development would have a permanent impact on these nationally important biodiversity and geodiversity assets, and a major negative impact would be expected.</p> <p>Where development proposals coincide with priority habitats, are adjacent to an ancient woodland, LNR, LWS, are located within a SSSI IRZ¹⁶ which states to “consult <i>Natural England</i>” or are located in close proximity to a Habitats site, SSSI, NNR, LNR or stand of ancient woodland, it is assumed that development would have an impact on these biodiversity assets, and a minor negative impact would be expected.</p> <p>Where a development proposal would not be anticipated to significantly impact a biodiversity asset, a negligible impact would be expected for this objective.</p> <p>Where development proposals would be anticipated to enhance biodiversity through the designation of a biodiversity site, a positive impact would be expected.</p> <p>It is assumed that development on previously undeveloped or greenfield land would result in an increase in GHG emissions due to the increase in the local population and the number of operating businesses and occupied homes.</p>
<p>2. Climate change: Mitigate and Reduce Site D-AGT1’s contribution towards climate change.</p>	<p>Development proposals which would be likely to increase greenhouse gas emissions in the local area would make it more difficult for the Council to reduce the Plan area’s contribution towards the causes of climate change.</p> <p>The incorporation of GI within developments presents several opportunities to mitigate climate change, for example, through providing natural cooling to combat the ‘urban heat</p>

¹⁶ Natural England (2022) Impact Risk Zones (IRZ) are a Geographical Information System (GIS) tool which allow a rapid initial assessment of the potential risks posed by development proposals to: SSSIs, SACs, SPAs and Ramsar sites. They define zones around each site which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts

Natural England’s Impact Risk Zones for Sites of Special Scientific Interest, 03 May 2022. Available at: <https://data.gov.uk/dataset/5ae2af0c-1363-4d40-9d1a-e5a1381449f8/sss-i-impact-risk-zones> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
	<p>island' effect, reducing the effects of air pollution and providing more pleasant outdoor environments to encourage active travel^{17 18}.</p> <p>It is assumed that development on previously undeveloped or greenfield land would result in an increase in GHG emissions due to the increase in the local population and the number of operating businesses and occupied homes.</p> <p>The increase in GHG emissions caused by new developments is associated with impacts of the construction phase, the occupation and operation of homes and businesses, oil, gas and coal consumption and increases in local road transport with associated emissions. This impact is considered to be permanent and non-reversible.</p>
<p>3. Cultural Heritage: Protect, enhance and manage heritage assets, including designated and non-designated, as well as features and areas of and heritage importance.</p>	<p>Impacts on heritage assets will be largely determined by the specific layout and design of the development proposal, as well as the nature and significance of the heritage asset. There is a risk of adverse effects occurring, some of which may be unavoidable. As such, this risk has been reflected in the assessment as a negative impact where a site is in close proximity to heritage assets.</p> <p>Adverse impacts are recorded for options which have the potential to have an adverse impact on sensitive heritage designations, including Grade I, II* and II Listed Buildings, Scheduled Monuments (SM), Registered Parks and Gardens (RPG), and Conservation Areas.</p> <p>Adverse impacts on heritage assets are predominantly associated with impacts on the existing setting of the asset and the character of the local area, as well as adverse impacts on views of, or from, the asset.</p> <p>Where development proposals are not located in close proximity to any heritage asset, or the nature of development is determined not to affect the setting or character of the nearby heritage asset, a negligible impact would be expected for this objective.</p> <p>When considering any planning application that affects a Conservation Area, authorities must pay special attention to the desirability of preserving or enhancing the character or appearance¹⁹. A replacement of a building that currently has a detrimental impact on a Conservation Area could potentially result in a neutral or a minor beneficial effect.</p> <p>It is anticipated that the Council will require a Heritage Statement to be prepared to accompany future planning applications, where appropriate. The Heritage Statement should describe the significance of any heritage assets affected by the proposals, including any contribution made by their settings.</p> <p>It is assumed that desk-based assessments will be required on a site-by-site basis for planning proposals which could potentially impact archaeological features (followed by field evaluation / potential trial trenching where appropriate).</p>

¹⁷ TCPA (2007) The essential role of green infrastructure: eco-towns green infrastructure worksheet. Available at: <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=dd06b21d-6d41-4c4e-bec5-4f29a192f0c6> [Date Accessed: 10/05/22]

¹⁸ Worcestershire County Council (2014) Green Infrastructure Framework 4: Socio-economic Benefits of Green Infrastructure. Available at: http://www.worcestershire.gov.uk/downloads/download/707/worcestershire_green_infrastructure_framework_documents [Date Accessed: 10/05/22]

¹⁹ Planning (Listed Buildings and Conservation Areas) Act 1990. Available at: <https://www.legislation.gov.uk/ukpga/1990/9/section/69> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
<p>4. Landscape: Conserve, enhance, restore and manage the character and appearance of the landscape and townscape, maintaining and strengthening their distinctiveness</p>	<p>Impacts on landscape will be largely determined by the specific layout and design of development proposals, as well as the site-specific landscape circumstances. Detailed proposals for each development are uncertain at this stage of the assessment. Therefore, the nature of the potential impacts on the landscape are, to an extent, uncertain. However, there is a risk of negative effects occurring, some of which may be unavoidable. As such, this risk has been reflected in the assessment as a negative impact where a development proposal is located in close proximity to sensitive landscape receptors. The level of impact has been assessed based on the nature and value of, and proximity to, the landscape receptor in question.</p> <p>Where a development proposal would not be anticipated to impact a local or designated landscape, a negligible impact would be expected for this objective. Where the development or enhancement of green infrastructure / landscape features is proposed, which could potentially enhance the local landscape character, a minor positive impact</p> <p>It is anticipated that the Council will require developers to undertake Landscape and Visual Impact Assessments (LVIAs) to accompany any future proposals, where relevant. The LVIAs should seek to provide greater detail in relation to the landscape character of the development proposals and its surroundings, the views available towards the development, the character of those views and the sensitivity and value of the relevant landscape and visual receptors.</p> <p>Development proposals which are considered to increase the risk of future development spreading further into the wider landscape would be expected to have a minor negative impact on the landscape objective.</p> <p>Development proposals which are considered to reduce the separation between existing settlements and increase the risk of the coalescence of settlements would be expected to have a potential minor negative impact on the landscape objective.</p>
<p>5. Water: Conserve, manage, restore and enhance water quality and supply.</p>	<p>The vulnerability of groundwater to pollution is determined by the physical, chemical and biological properties of the soil and rocks, which control the ease with which an unprotected hazard can affect groundwater. Groundwater Source Protection Zones (SPZs) indicate the risk to groundwater supplies from potentially polluting activities and accidental releases of pollutants. As such, any development proposal that is located within a groundwater SPZ could potentially have an adverse impact on groundwater quality. Site D-AGTI does not coincide with any SPZs.</p> <p>Construction activities in or near watercourses have the potential to cause pollution, impact upon the bed and banks of watercourses and impact on the quality of the water²⁰.</p> <p>An approximate 10m buffer zone from a watercourse should be used in which no works, clearance, storage or run-off should be permitted²¹. However, it is considered that</p>

²⁰ World Health Organisation (1996) Water Quality Monitoring - A Practical Guide to the Design and Implementation of Freshwater Quality Studies and Monitoring Programmes: Chapter 2 - Water Quality. Available at: <https://apps.who.int/iris/handle/10665/41851> [Date Accessed: 06/05/22]

²¹ Department of Agriculture, Environment and Rural Affairs (no date) Advice and Information for planning approval on land which is of nature conservation value. Available at: <https://www.daera-ni.gov.uk/articles/advice-and-information-planning-approval-land-which-nature-conservation-value> [Date Accessed: 10/05/22]

SEA Objective	Assessment Assumptions
	<p>development further away than this has the potential to lead to adverse impacts such as those resulting from runoff.</p> <p>Thames Water, which covers the town of Aylesbury, is classed to be in an area of serious water stress²².</p> <p>It is assumed that development proposals will be in accordance with the VALP Policy I5 which requires higher water efficiency standard of 110 litres per person per day, as set out in the Building Regulations Part G²³.</p>

2.10 Limitations

- 2.10.1 SEA is a tool for predicting potential significant effects. Predicting effects relies on an evidence-based approach and incorporates expert judgement. It is often not possible to state with absolute certainty whether effects will occur, as many impacts are influenced by a range of factors such as the design and the success of mitigation measures. The assessments in this report are based on the best available information, including information that is publicly available. Every attempt has been made to predict effects as accurately as possible.
- 2.10.2 All data used is secondary data available from Buckinghamshire Council or freely available on the Internet. No biodiversity records search has been commissioned through the Buckinghamshire and Milton Keynes Environmental Records Centre.

²² Environment Agency and DEFRA (2021) Water stressed areas – 2021 classification. Available at: <https://www.gov.uk/government/publications/water-stressed-areas-2021-classification> [Date Accessed: 06/05/22]

²³ The Building Regulations 2010. Part G: Sanitation, hot water safety and water efficiency. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/504207/BR_PDF_AD_G_2015_with_2016_amendments.pdf [Date Accessed: 17/05/22]

3 Assessment of Reasonable Alternatives

3.1 Overview

- 3.1.1 The SEA Directive requires that the SEA process considers “reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme” (Article 5) and gives “an outline of the reasons for selecting the alternatives dealt with” (Annex I).
- 3.1.2 The purpose of this Reasonable Alternatives SEA Report is to enable plan makers to make an informed decision about the final content of the plan. The role of SEA is to inform the plan making group in their selection and assessment of reasonable alternatives.
- 3.1.3 The findings of this Reasonable Alternatives SEA Report can help with refining and further developing these options in an iterative and on-going way. The SEA findings do not form the sole basis for decision-making; other studies, the feasibility of the option and consultation feedback will also contribute to the decision of identifying a preferred option.
- 3.1.4 The results of the Reasonable Alternatives SEA Report may reveal that there is no single, best performing option. Where there is no obvious discernible difference at a strategic scale, the SEA process will record this as an outcome.
- 3.1.5 It should be noted that a further SEA Report will be produced, known as an Environmental Report.
- 3.1.6 PPG notes that ‘reasonable alternatives’ are the different realistic options considered by the plan-maker in developing the policies in its plan. It notes that the SEA process should provide conclusions on the overall sustainability of the different alternatives and that the alternatives must be realistic and deliverable²⁴.
- 3.1.7 Reasonable alternatives for a development could constitute:
- A) Growth alternatives for housing and employment use e.g., the total number of dwellings or employment floorspace across the development area;
 - B) Alternative site allocations for development; and
 - C) Alternative policies, including a comparison between the inclusion of policies against the ‘do nothing’ approach.

²⁴MHCLG (2021) Planning Practice Guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance>
[Date Accessed: 09/05/22]

3.1.8 The remainder of this chapter sets out the SEA of reasonable alternatives. Identified impact ‘scores’ have been presented by SEA Objective in tables which include assessment narrative text. The reasonable alternatives have been assessed per the methodology set out in **Chapter 2**.

3.2 Reasonable Alternatives

3.2.1 There are three reasonable alternatives which have been identified during the preparation of the SPD, relating to the layout of the proposed development Site D-AGT1:

- One alternative as proposed in the SPD;
- One as presented within the draft Stoke Mandeville Neighbourhood Plan²⁵. The proposed outline masterplan of the site is presented within the Stoke Mandeville Corridor Policy paper²⁶; and
- One as presented within the outline planning application masterplan submitted by Broadway Malyan (19/01628/AOP) which covers approximately half of Site D-AGT1²⁷.

3.2.2 The masterplan site boundary presented in the draft D-AGT1 South Aylesbury SPD is shown in **Figure 3.1**, the masterplan site boundary presented in the Stoke Mandeville Corridor Policy Paper is shown in **Figure 3.2**, and the masterplan site boundary presented by Broadway Malyan is shown in **Figure 3.3**. There are no discernible differences between the masterplans at the strategic scale, which SEA concerns; however, there are some minor differences at the local scale related to site layout.

3.2.3 The site boundary for D-AGT1 is identical between the SPD and the SMNP. The masterplan submitted by Broadway Malyan covers only the western proportion of the Site D-AGT1 between Lower Road and the railway line. The main differences between the masterplans outlined within the SPD and the SMNP are the following:

- Location of the strategic green buffer; and
- Location of the local centre.

²⁵ Stoke Mandeville Parish Council (2021) A Neighbourhood Plan for Stoke Mandeville 2021 -2033. Available at: <https://www.stokemandevilleparishcouncil.org.uk/wp-content/uploads/2021/07/A-Neighbourhood-Plan-for-Stoke-Mandeville-2021-2033-ver2.pdf> [Accessed: 10/05/22]

²⁶ Stoke Mandeville Parish Council (2021) Stoke Mandeville Corridor Policy Paper [KPSMC]. Available at: <https://www.stokemandevilleparishcouncil.org.uk/wp-content/uploads/2021/07/Stoke-Mandeville-Corridor-Policy-Paper.pdf> [Accessed: 10/05/22]

²⁷ 19/01628/AOP | Outline planning application, for the proposed development of up to 750 dwellings, safeguarded land for delivery of South-East Aylesbury Link Road, Primary school, community hub, vehicular and pedestrian access off Lower Road, pedestrian and emergency access, new internal road and pedestrian footpath network and provision for green infrastructure | Land To East Of Lower Road Stoke Mandeville Buckinghamshire. Available at: <https://publicaccess.aylesburyvaledc.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=PQRMXXCLOPG00> [Date Accessed: 17/05/22]

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- 3.2.4 The SPD seeks to place development adjacent to existing development in Stoke Mandeville, to the south east of Site D-AGT1 separated from the central and western site areas by a strategic buffer (see **Figure 3.1**). However, the green buffer proposed by the masterplan for D-AGT1 development in the SMNP would separate development of the proposed site from existing development within Stoke Mandeville in the south east of the proposed site (see **Figure 3.2**). The Broadway Malyan masterplan does not cover the eastern area of Site D-AGT1, but matches the SPD layout in terms of the strategic buffer location in the western area of the site. The Broadway Malyan masterplan also provides further detail for a proposed layout of the site, including areas of formal and informal greenspace and retained / proposed trees.
- 3.2.5 The SPD presents two alternative locations of a proposed local centre within Site D-AGT1, to the east and to the west of the site. Conversely, the SMDP proposes that the local centre with associated amenities should be located at the Parish Centre site to the west of Site D-AGT1, outside of the proposed D-AGT1 site boundary as outlined by Policy PSBF1 of the NP. The Broadway Malyan 'Land Use and Access' Plan shows an indicative location for a community hub in the centre of the site (see **Figure 3.3**).



Green Infrastructure Plan

Key

-  Strategic Buffer
-  Strategic Buffer - Peri-Urban Agriculture
-  Secondary Connections
-  Aylesbury Walk
-  South East Aylesbury Link Road Corridor
-  Railway Corridor
-  Central Open Space
-  School Playing Fields (size & position TBC)
-  Sports Pitches

Figure 3.1: GI Plan for Site D-AGT1 as set out within the D-AGT1 South Aylesbury SPD (Draft - March 2022)

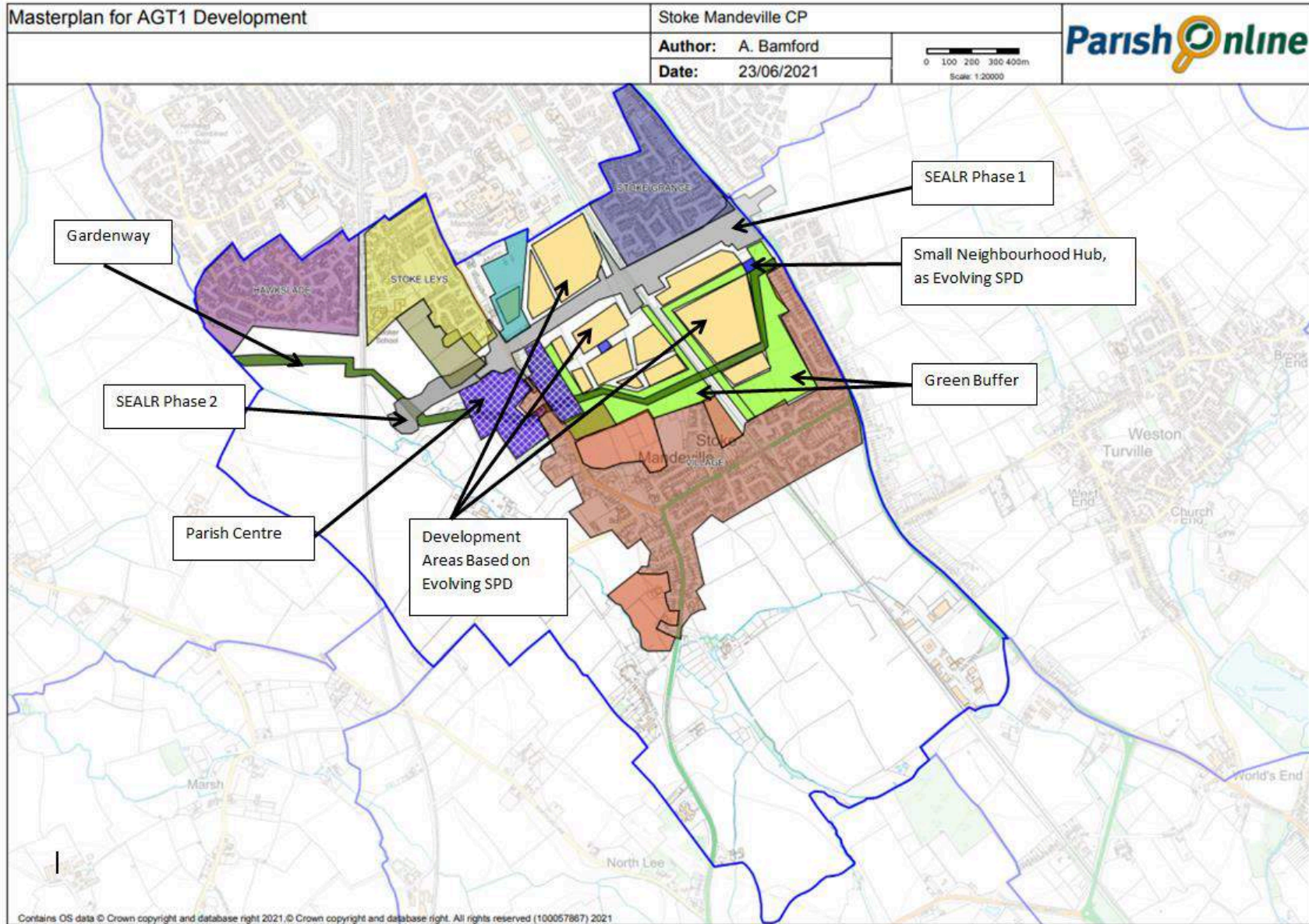


Figure 3.2: Outline masterplan of Site D-AGT1 as set out in the Stoke Mandeville Corridor Policy (Source: Draft Stoke Mandeville Neighbourhood Plan)

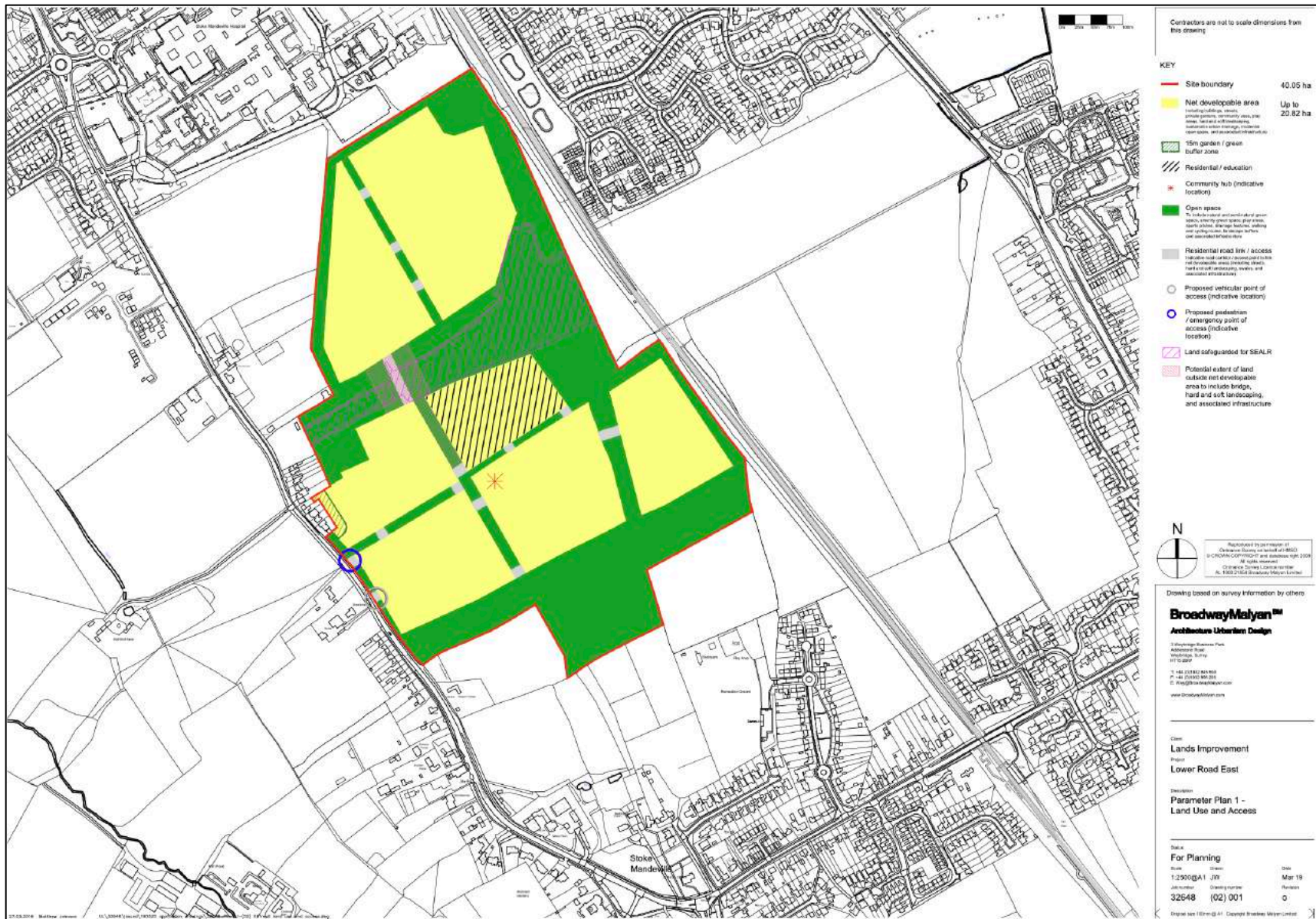


Figure 3.3: Outline masterplan covering part of Site D-AGT1 as set out in the Broadway Malyan planning application (Source: Buckinghamshire Council)

3.3 Assessment of alternatives

3.3.1 The impact matrices for each reasonable alternative assessed in this report have been brought together in **Tables 2.2 - 2.6**. These impacts should be read in conjunction with the assessment text narratives in **sections 3.4 - 3.8**, as well as the topic-specific methodologies and assumptions presented in **Chapter 2**. Whilst the assessment findings have drawn on the assumptions in **Table 2.4**, all assessment information excludes consideration of detailed mitigation i.e. additional detail or modification to the reasonable alternative that has been introduced specifically to reduce identified environmental effects of that site. Presenting assessment findings in this way facilitates transparency to the decision makers.

3.4 SEA Objective 1 – Biodiversity

3.4.1 The site is located approximately 4.2km from Chilterns Beechwoods SAC which potentially could lead to a minor negative impact on the SAC through recreational pressure. An HRA has been carried out parallel to the preparation of the VALP to inform the plan-making process to ensure that potential impacts arising from the VALP in relation to this SAC and other Habitats sites have been suitably addressed and mitigated.

3.4.2 An HRA Screening exercise of the SPD has been completed by Buckinghamshire Council²⁸. The screening process identified likely significant effects arising from recreational pressure associated with Site D-AGT1. Consequently, the Council proposes to prepare an Appropriate Assessment of the SPD.

3.4.3 Site D-AGT1 does not coincide with any known sites of national or local importance for biodiversity, however there is a small section of deciduous woodland priority habitat adjacent to the north of the site boundary, close to Stoke Mandeville Hospital.

3.4.4 The proposed development at Site D-AGT1 must be in accordance with VALP policies including Policies NE1 (Biodiversity and Geodiversity) and NE8 (Trees, hedgerows and woodlands) which seek to protect and enhance designated sites, protected habitats/species and GI, and deliver biodiversity net gain. This could lead to longer term positive effects on biodiversity if net gains are successful.

3.4.5 The details proposed within the SPD, the SMNP and the Broadway Malyan application regarding the development of Site D-AGT1 are likely to perform similarly at the strategic scale, in relation to biodiversity, where a minor negative impact could be attributed to the potential recreational impacts on Chilterns Beechwoods SAC. The emerging HRA will provide greater details on these impacts and the potential for mitigation, therefore a precautionary minor negative impact upon development of Site D-AGT1 has been identified in relation to the biodiversity topic for SEA purposes, relating to impacts on this designated site.

²⁸ Aylesbury South (D-AGT 1) Masterplan Supplementary Planning Document. Draft Strategic Environmental Assessment and Habitats Regulations Assessment Screening Statement. Last updated: 04 June 2021 Version: 1.1 – 04 June 2021

Table 3.1: Impact matrix for Site D-AGT1 (Biodiversity)

Reasonable alternative for Site D-ATG1	SEA Objective 1 - Biodiversity						Overall score
	Habitats Site	Site of Special Scientific Interest (IRZ)	National Nature Reserve	Ancient Woodland	Local Nature Reserve	Priority Habitat	
Stoke Mandeville NP	-	0	0	0	0	0	-
South Aylesbury SPD	-	0	0	0	0	0	-
Broadway Malyan planning application	-	0	0	0	0	0	-

3.5 SEA Objective 2 – Climate change

- 3.5.1 Air quality within the Vale of Aylesbury is generally good²⁹, and there are no Air Quality Management Areas (AQMAs) within or in close proximity to Site D-AGT1.
- 3.5.2 The proposed new link road between the A413 to B4443 Lower Road could potentially cause some negative impacts in terms of climatic factors, such as an increase in local air pollution. However, the SPD would be expected to facilitate alternative transport modes including active travel through the provision of new routes and multi-functional Green Infrastructure (GI).
- 3.5.3 The introduction of 1,000 new dwellings will inevitably cause an increase in energy consumption, pollution, and traffic during both the construction and occupancy stages, to some extent. It is therefore expected that the development at Site D-ATG1 could have an adverse impact on climate change, to some extent.
- 3.5.4 Climate change is anticipated to increase the risk of extreme weather events. Of particular concern in the UK is the rising risk of fluvial, pluvial (surface water) and coastal flooding. In 2009 the EA estimated 2.4 million properties in England were susceptible to fluvial and/or coastal flooding, whilst 3.8 million properties in England were susceptible to pluvial flooding³⁰.

²⁹ Buckingham Council (2021) Air Quality. Available at: <https://www.aylesburyvaldc.gov.uk/section/air-quality> [Date Accessed: 18/05/22]

³⁰ Environment Agency (2009) Flooding in England: National Assessment of Flood Risk. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/292928/aeo0609bads-e-e.pdf [Date Accessed: 10/05/22]

- 3.5.5 Although Site D-AGT1 is located wholly within Flood Zone 1, it is likely that flood risk will become more prevalent in future years due to higher flood plain levels and climate change introducing more extreme weather events including higher volumes of rainfall, which the SPD should ensure to consider.
- 3.5.6 The SPD sets out measures for mitigating climate change including reducing energy use, promotion of energy efficiency measures and use of renewable energy throughout the development, in line with Policy C3 of the VALP. Additionally, the SPD seeks to create a strategic open space circular non-vehicular route, the ‘Gardenway’, which would improve connectivity to local amenities for new residents, encourage active travel and reduce reliance on private cars, potentially helping to reduce associated greenhouse gas emissions.
- 3.5.7 The SPD sets out provision of a new local centre to be situated in either the east or the west of the site, to provide new residents in closer proximity to community facilities than current facilities available further away in Aylesbury and Stoke Mandeville, which would have positive impacts on active travel and reducing reliance on private cars. The layout proposed within the Broadway Malyan masterplan indicates that a new community hub would be provided in the centre of the western section of D-AGT1, connected via a network of existing and proposed footpaths, potentially resulting in similar benefits to the SPD in terms of promoting a walkable neighbourhood and encouraging more sustainable travel for new residents in this proportion of the site. However, the SMNP proposes that the local centre is placed to the west of Site D-AGT1, situated outside of the site boundary. Therefore, the SPD and Broadway Malyan proposal would place the local centre more centrally with potentially greater benefits for new residents at the proposed site. Overall, this difference is deemed to be minimal in strategic terms.
- 3.5.8 The details proposed within the SPD and within the SMNP regarding the development of Site D-AGT1 are likely to perform similarly at the strategic scale, in relation to climate change, where a minor negative impact would be attributed to increased energy consumption and emissions from the development of at least 1,000 dwellings during construction and occupation. Additionally, the development of the South East Aylesbury Link Road could lead to an increase in local air pollution and potentially result in minor negative impacts on climate change mitigation targets.

Table 3.2: Impact matrix for Site D-AGT1 (Climate change)

Reasonable alternative for Site D-ATG1	SEA Objective 2 – Climate change				
	AQMA	Main road	Increased energy consumption related GHG emissions	Flood Zone	Overall score
Stoke Mandeville NP	+	-	-	+	-
South Aylesbury SPD	+	-	-	+	-
Broadway Malyan planning application	+	-	-	+	-

3.6 SEA Objective 3 – Cultural heritage

- 3.6.1 There are several Grade II Listed Buildings within and surrounding the settlement of Stoke Mandeville, including a cluster along the B4443 running north to Aylesbury, which represents the western edge of the proposed scheme. This includes the ‘Stoke Cottage’, ‘Lone Ash’ and ‘Bell Cottage and Tudor Cottage’. The Grade II Listed Building, ‘Magpie Cottage’, lies within the southwest corner of Site D-AGT1 itself. Therefore, the proposed development at Site D-ATG1 has potential to cause a minor negative impact on cultural heritage, in relation to these assets and their settings.
- 3.6.2 The Archaeology Data Service shows three records of physical archaeological evidence in the location of Site D-AGT1³¹. This includes records of known features as well as digs and excavations, some of which resulted in archaeological finds. Development on Site D-ATG1 could potentially directly impact archaeological remains and therefore a minor negative impact on these heritage assets could be expected. The SPD could benefit from a desk-based archaeological assessment of the site, followed by relevant investigatory fieldwork.
- 3.6.3 It is acknowledged that the SPD seeks to retain Grade II Listed Building ‘Magpie Cottage’ within an appropriate setting, however the SPD could benefit from further detail regarding the conservation and, where possible, enhancement of this heritage asset in line with its significance. This should be informed by a heritage assessment.
- 3.6.4 The details proposed within the SPD, the SMNP and the Broadway Malyan application regarding the development of Site D-AGT1 are likely to perform similarly at the strategic scale, in relation to cultural heritage, where potential minor negative impacts are associated with Site D-AGT1’s coincidence and close proximity to heritage assets as outlined within **paragraphs 3.6.1 and 3.6.2.**

Table 3.3: Impact matrix for Site D-AGT1 (Cultural heritage)

Reasonable alternative for Site D-ATG1	SEA Objective 3 – Cultural heritage						
	Listed Buildings (Grades I, II* and II)	Conservation Area	Scheduled Monument	Registered Parks and Gardens	Archaeology	Heritage at Risk	Overall score
Stoke Mandeville NP	-	0	0	0	-	0	-
South Aylesbury SPD	-	0	0	0	-	0	-
Broadway Malyan planning application	-	0	0	0	-	0	-

³¹ Archaeology Data Service (2018) ARCHSEARCH. Available at: <http://archaeologydataservice.ac.uk/> [Date Accessed: 09/05/22]

3.7 SEA Objective 4 – Landscape

- 3.7.1 Site D-AGT1 lies within the National Character Area (NCA) ‘Upper Thames Clay Vales’. Key characteristics of this NCA include *“low-lying clay-based flood plains ... gently undulating topography ... fields are regular and hedged”*³².
- 3.7.2 Site D-AGT1 is located within Landscape Character Area ‘Southern Vale’³³ which has key characteristics of:
- Flat landscape in the north rising gently to a rolling landform on the southern edge;
 - Parliamentary enclosure;
 - Streams and ditches draining off the chalk scarp to the south marked by belts of mature black poplar;
 - Landscape continuity interrupted by development and communication corridors;
 - Predominance of large open arable fields; and
 - Pockets of grazing land and smaller field parcels associated with settlements.
- 3.7.3 The Chilterns Area of Outstanding Natural Beauty (AONB) is located approximately 2.3km to the south east of the site, at its closest point. The settlement of Stoke Mandeville lies between the proposed site and the AONB, although Stoke Mandeville is still separated from the AONB by approximately 1.9km of primarily arable land. The Chilterns AONB is partially elevated, including the area to the south of the site. The proposed development could therefore have a minor negative impact on the surrounding landscape by potentially altering the view from the Chilterns AONB.
- 3.7.4 As stated in the Sustainability Appraisal (SA) of the Vale of Aylesbury Local Plan³⁴, completed in 2018, a main concern was the potential impacts on the AONB from the expansion of Aylesbury to the south and southeast. The SA examined the ‘cumulative effects’ of growth at Aylesbury and paragraph 10.9.2 (page 95) of the SA report concludes:

³² Natural England (2014) NCA Profile: 108 Upper Thames Clay Vales (NE570). Available at: <http://publications.naturalengland.org.uk/publication/5865554770395136> [Date Accessed: 09/05/22]

³³ Aylesbury Vale District Council (2008) Landscape Character Assessment. Available at: <https://www.aylesburyvaledc.gov.uk/landscape-character-assessment> [Date Accessed: 09/05/22]

³⁴ AECOM (2018) Sustainability Appraisal (SA) of the Vale of Aylesbury Local Plan. Available at: https://www.aylesburyvaledc.gov.uk/sites/default/files/page_downloads/VALP%20-%20SA%20Report%20170918.pdf [Date Accessed 09/05/22]

“There would be direct visual effects on the AONB as a result of the cumulative development sites. The visual extent of the cumulative development sites, combined with the existing development at Aylesbury and nearby settlements, would be readily apparent. However, development across the sites will be predominantly low-rise and incorporate substantial mitigation planting, reducing the impact on views across the low-lying vale landscape from the elevated viewpoints within the AONB. The key characteristics of views across the wider landscape would be fundamentally unchanged, in that they would remain expansive across the settled vale landscape. It is considered unlikely that there would be significant cumulative residual landscape and visual effects on the AONB”.

- 3.7.5 Development proposals which are considered to reduce the separation between existing settlements and increase the risk of the coalescence of settlements would be expected to have a potential minor negative impact on the landscape objective.
- 3.7.6 The SMNP proposes a masterplan for Site D-AGT1 where a green buffer sits between the settlement of Stoke Mandeville and the site, which could reduce the extent of coalescence between the existing settlement and the proposed ‘Garden Town’. However, the site itself could increase the likelihood of urban sprawl and coalescence between the settlements and therefore both the SPD and SMNP could have potential for minor negative impacts on the local landscape. It is acknowledged that providing a buffer between existing and future developments, as proposed in the SMNP, could help to retain the identity of Stoke Mandeville to a slightly greater degree than the SPD version.
- 3.7.7 Whilst the Broadway Malyan application masterplan does not cover the eastern proportion of D-AGT1 where the proposed green buffer lies in the SMNP (as discussed in **paragraph 3.7.6**), the development would nonetheless be expected to result in adverse impacts at the strategic scale when considering the scale of expansion to the existing settlement, although the masterplan could result in varying impacts on landscape at the local level due to the specific location of GI provisions such as the retained and proposed trees and woodland as shown on the ‘proposed illustrative masterplan’³⁵.
- 3.7.8 Overall, using the precautionary principle and reflecting on points made in **paragraph 3.7.4**, potential minor negative impacts on the landscape including, views from the Chilterns AONB and urban sprawl/coalescence, cannot be ruled out at this stage upon development of Site D-AGT1 due to the scale and nature of the proposals.

³⁵ Available at: https://publicaccess.aylesburyvaledc.gov.uk/online-applications/files/BD5E8793674057042F83F0E33F97629E/pdf/19_01628_AOP-PROPOSED_ILLUSTRATIVE_MASTERPLAN-2005301.pdf [Date Accessed: 17/05/22]

Table 3.4: Impact matrix for Site D-AGT1 (Landscape)

Reasonable alternative for Site D-ATG1	SEA Objective 4 – Landscape						Overall score
	AONB	National Park	Country Park	Altered view from PRoWs	Urban sprawl/coalescence	Access to multi-functional greenspace	
Stoke Mandeville NP	-	0	0	0	-	+	-
South Aylesbury SPD	-	0	0	0	-	+	-
Broadway Malyan planning application	-	0	0	0	-	+	-

3.8 SEA Objective 5 – Water

3.8.1 The Environment Agency provided comments on the SEA Scoping report of the D-AGT1 South Aylesbury SPD which included “*With the scale of the proposal, it is not clear what the impact of the development will be on water resources in this area when considering issues such as waste water/sewage discharge and water use. The scoping document has not provided information on this to justify why and if water should be scoped out*”. The SEA topic of water has therefore been included within the SEA to address these comments and provide recommendations to enhance the SPD regarding this topic.

3.8.2 Therefore, the SPD should seek to ensure that demand for water in an area which is under “*serious water stress*”³⁶ is kept to a minimum, for example by ensuring that water-saving measures are implemented within the design of the developments. It is recommended that the SPD outlines what measures are to be taken to ensure that water supply is not negatively impacted by the development of Site D-AGT1.

3.8.3 In relation to water management, the draft SPD (March 2022) recognises that local borehole records show that groundwater levels are close to the surface and outlines that “*development is to be designed using a sequential approach with drainage designs designed to exceed and accommodate existing surface water flows*”. The SPD seeks to implement above-ground vegetative Sustainable Drainage Systems (SuDS) including rainwater harvesting, grey water systems and rain gardens to effectively manage surface water which could indirectly have positive consequences for drainage and wastewater during flood events.

³⁶ Environment Agency and DEFRA (2021) Water stressed areas – 2021 classification. Available at: <https://www.gov.uk/government/publications/water-stressed-areas-2021-classification> [Date Accessed: 06/05/22]

- 3.8.4 However, reflecting upon Environment Agency comments, it is recommended that the SPD should clarify the method in which resulting wastewater and sewage from the development of Site D-AGT1 would be processed in terms of capacity, acknowledging the aims and objectives of local River Basin Management Plans and environmental consequences of sewage discharges into water bodies due to over-subscribed treatment plants.
- 3.8.5 For the purposes of SEA assessment, the reasonable alternatives have been assessed in relation to their potential impacts on water quality, in particular watercourses and groundwater Source Protection Zones (SPZs).
- 3.8.6 A minor watercourse runs through the eastern parcel of Site D-AGT1. The SPD seeks to encourage growth of native vegetation along streams and other watercourses, which could enhance local watercourse quality. Policy PSBCC3 of the SMNP seeks to “ensure that all watercourses are protected from contamination”. Although the Broadway Malyan application masterplan does not cover the eastern parcel of D-AGT1, a number of water provisions are set out for the western parcel including indicative areas for watercourse improvements, swales and SuDS, alongside both retained and proposed trees. Therefore, minor positive impacts on local watercourses could be expected as a result of each reasonable alternative in relation to watercourses in the vicinity of Site D-AGT1.
- 3.8.7 There are no SPZs within the site area and therefore it is likely that development of Site D-AGT1 would have a negligible impact on groundwater quality.
- 3.8.8 At this stage, an overall uncertain impact is identified for SEA Objective 5 – Water as the potential implications of the development on water resources and water supply is unknown.

Table 3.5: Impact matrix for Site D-AGT1 (Water)

Reasonable alternative for Site D-ATG1	SEA Objective 5 – Water			
	Watercourse	SPZ	Water Resources	Overall score
Stoke Mandeville NP	+	0	+/-	+/-
South Aylesbury SPD	+	0	+/-	+/-
Broadway Malyan planning application	+	0	+/-	+/-

3.9 Overview of Assessments

Reasonable Alternative	Topic	Overall Score
Stoke Mandeville Neighbourhood Plan	Biodiversity, flora and fauna	-
	Climate change	-
	Cultural heritage	-
	Landscape	-
	Water	+/-
D-AGT1 South Aylesbury Supplementary Planning Document	Biodiversity, flora and fauna	-
	Climate change	-
	Cultural heritage	-
	Landscape	-
	Water	+/-
Broadway Malyan Planning Application Masterplan	Biodiversity, flora and fauna	-
	Climate change	-
	Cultural heritage	-
	Landscape	-
	Water	+/-

4 Conclusion

4.1 Overview

- 4.1.1 This report has assessed the reasonable alternatives of the draft D-AGT1 South Aylesbury SPD. Each reasonable alternative has been assessed against the SEA Framework, which itself focuses on biodiversity, climate change, cultural heritage, landscape and water.
- 4.1.2 Overall, the reasonable alternatives assessed in this report would be expected to result in minor negative impacts relating to the issues outlined in **Chapter 3**, including biodiversity, climate change, cultural heritage and landscape. A degree of uncertainty remains in terms of water resource issues.
- 4.1.3 The three reasonable alternatives perform similarly in the SEA, with no single, best performing option identified owing to the small-scale differences identified between the options.
- 4.1.4 Various policies outlined in VALP would help to ensure that all future development takes into account the surrounding environment, historic assets and landscape. Several recommendations have been made in this SEA report (see **Chapter 3**) to potentially enhance the sustainability of the proposals within the SPD or to provide further clarity regarding certain issues, such as addressing water resource issues.

4.2 Next steps

- 4.2.1 At this stage of the SEA process, no defining conclusions can be made following the assessment of reasonable alternatives. The sustainability benefits and best performing options identified for all options should be considered in detail prior to the preparation of the Environmental Report.

Appendix A: SEA Framework

SEA Objective	Decision making criteria	Indicators
<p>1</p> <p>Biodiversity, Flora and Fauna: Protect, enhance, restore and manage the flora, fauna, biodiversity and geodiversity assets of the areas affected by the development of Site D-AGT1.</p>	Will it result in a net loss or a net gain for biodiversity?	<ul style="list-style-type: none"> • Number of new residents which generate adverse impacts on sites of biodiversity importance, such as the Chiltern Beechwoods SAC. • Creation of new biodiversity assets. • Provision of multi-functional green infrastructure. • Enhancement and protection of habitats and wildlife corridors. • Ensure current ecological networks are not compromised and secure future improvement in habitat connectivity. • Protection of existing vegetation and hedgerows. • Protection and enhancement of watercourses.
	Will it protect or enhance wildlife sites or biodiversity?	
	Will it protect sites and habitats designated for nature conservation including protected species?	
	Will it protect and enhance the water environment?	
<p>2</p> <p>Climate Change: Mitigate and reduce Site D-AGT1's contribution towards climate change.</p>	Will it reduce emissions from transport and the built environment?	<ul style="list-style-type: none"> • Provision of green infrastructure. • Public transport and cycling and walking provision for new development. • Length of greenways constructed. • Natural greenspace within 400m of residential development. • Increased local traffic. • Drainage designed for 'exceedence' flood events (e.g. SuDS). • Design incorporating water conservation methods.
	Will it reduce flood risk?	
	Will it conserve water resources?	

SEA Objective	Decision making criteria	Indicators
Cultural Heritage: Protect, enhance and manage heritage assets, including designated and non-designated, as well as features and areas of and heritage importance.	Will it preserve buildings of historic interest and, where necessary, encourage their conservation?	<ul style="list-style-type: none"> • Protection of local heritage features including Listed Buildings, such as Grade II Listed Building 'Magpie Cottage'. • Annual number of visitors to historic attractions. • Below ground remains. For archaeology this means conserving archaeological remains where practicable, particularly remains of national importance, through masterplan design, to mitigate through archaeological investigation, recording and publication where conservation is not practicable.
	Will it preserve or enhance archaeological sites?	
	Will it preserve or enhance the setting or character of cultural heritage assets or areas?	
Landscape: Conserve, enhance, restore and manage the character and appearance of the landscape and townscape, maintaining and strengthening their distinctiveness.	Will it protect and enhance the local landscape?	<ul style="list-style-type: none"> • Landscape-led development with consideration of long-distance views of the AONB? • Use of locally sourced materials. • Is development in-keeping with surroundings (e.g. character of Stoke Mandeville)? • Increase of coalescence. • Protection of local PRowS.
	Will it protect and enhance the local townscape?	
Water: Maintain and enhance water quality and ensure the most efficient use of water.	Will it maximise water efficiency?	<ul style="list-style-type: none"> • Water efficiency in new homes (i.e. all new housing schemes to achieve water efficiency standard of 110 litres/person/day (lpd)) • No indicators for water infrastructure have been identified. • Protect local watercourses and improve their water quality.
	Will it minimise impact on water quality?	
	Will it impact on water discharges that affect designated sites?	
	Will it contribute to achieving the River Basin Management Plan actions and objectives?	

Habitat Regulations Assessments

Sustainability Appraisals

Strategic Environmental Assessments

Landscape Character Assessments

Landscape and Visual Impact Assessments

Green Belt Reviews

Expert Witness

Ecological Impact Assessments

Habitat and Ecology Surveys



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

© Lepus Consulting Ltd

Eagle Tower

Cheltenham

GL50 1TA

T: 01242 525222

E: enquiries@lepusconsulting.com

www.lepusconsulting.com

CHELTENHAM



Lepus Consulting
Eagle Tower
Cheltenham
Gloucestershire GL50 1TA

t: 01242 525222
w: www.lepusconsulting.com
e: enquires@lepusconsulting.com

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Eagle Tower

Cheltenham

GL50 1TA

T: 01242 525222

E: enquiries@lepusconsulting.com

www.lepusconsulting.com

CHEL TENHAM



Lepus Consulting
Eagle Tower
Cheltenham
Gloucestershire GL50 1TA

t: 01242 525222
w: www.lepusconsulting.com
e: enquires@lepusconsulting.com