

Chippenham Site Allocations Plan Sustainability Appraisal Report

Wiltshire Council

Updated Non-Technical Summary

May 2017

ATKINS

Plan Design Enable

Notice

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Document history

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Client signoff

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| Client | Wiltshire Council |
| Project | Chippenham Site Allocations Plan |
| Document title | SA Report |
| Job no. | 5139589 |
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Non-Technical Summary

Introduction

This is the Non-Technical Summary of the Sustainability Appraisal (SA) Report, setting out the SA process and outcomes for the Chippenham Site Allocation (CSA) Plan. The Final SA Report is compiled from a suite of documents which cover the different stages of the plan making process:

- SA Report Part One A – Chapters 1 to 6 (May 2016)
- SA Report Part One B – Review of the SA of Strategic Areas (May 2016)
- SA Report Part Two (Addendum 1) – SA of Strategic Site Options (May 2016)
- SA Report Part Three (Addendum 2) – SA of Alternative Development Strategies (May 2016)
- SA Report Part Four – SA of Proposed Modifications (May 2016)
- SA Note of Further Modifications (October 2016)
- SA Note of Inspectors Modifications (May 2017)

Readers are advised to read the full contents of the SA Report for more detailed information. The SA report has been produced by Atkins for Wiltshire County Council.

Wiltshire Council is preparing the CSA Plan, which will set the long term pattern and direction of growth for the town's expansion. The purpose of this plan is to identify large mixed use strategic sites for businesses, new homes and the infrastructure necessary to support these sites.

The Inspector examining the soundness of the Draft CSA Plan expressed concerns about the adequacy of the Sustainability Appraisal prepared to support the Plan's preparation. Due to this, the examination of the CSA Plan was suspended in November 2015 and further work was undertaken on the Plan and the SA. The February 2015 SA Report and the July 2015 SA Note of modifications to the CSA Plan submitted for examination were updated and supplemented with further work to assess:

- a larger set of strategic site options;
- alternative and preferred development strategies.

The updated SA Report was published as multiple documents in May 2016 at the same time as modifications proposed by the Council to the draft CSA Plan for public consultation which took place May-June 2016.

Further modifications to the Pre-Submission draft Chippenham Site Allocations Plan arose in response to comments received as part of the consultation on the Proposed Modifications in May 2016, discussions at the Examination in Public Hearings held between 27 September and 4 October 2016, and Statements of Common Ground between the council and key stakeholders. These modifications were addressed in an SA update note (October 2016) which suggested a number of recommendations to mitigate adverse effects that were identified. The SA note suggested improvements to the policies in terms of wording and requirements. Where relevant, these recommendations were incorporated by the Council into the revised Draft CSA Plan. It is considered that these further changes improved the overall sustainability of the revised Draft CSA Plan.

The Inspector then made a small number of other modifications to Policy CH2 (Rawlings Green) and its supporting text in his report (February 2017). A SA Note has been produced (April 2017) and concluded that the further main modifications proposed in the Inspector's Report (February 2017) to the Pre-Submission draft Chippenham Site Allocations Plan add clarity to existing policy wording. The changes have no SA implications, either due to their clarification nature or to being already implicit in the SA.

Chippenham Site Allocations Plan – vision and objectives

Vision

The CSA Plan sets out a vision and specific objectives for the development proposals:

- Chippenham will strive to be as attractive as possible in terms of shopping and leisure provision and will emphasise its role as a Riverside Market town surrounded by beautiful countryside and attractive villages.
- Chippenham will recognise and build on its natural assets and its important heritage will be cherished. Its setting on the River Avon will be its defining and connecting feature combined with the historic centre, the market, pleasant parks and open spaces; creating a thriving artery and distinctive identity for the town.
- Chippenham will be a place where young people choose to stay to live and work, because of the excellent education facilities, the choice and quality of work, which are complimented by its programme of events, festivals and activities.
- Chippenham will be a retail destination of choice for the surrounding area due to its range of shops, excellent market, lively cafés and restaurants and leisure facilities which are complimented by its programme of events, festivals and activities.
- Chippenham will take advantage of its excellent rail and road links and its position on the high tech corridor between London, Bristol and beyond. It will strengthen its offer and role as a business location ensuring people can live and work locally.
- Chippenham will have an integrated approach to transport so that traffic flow will be more efficient, the town centre will be less congested and there will be improved access for sustainable modes of transport.

Objectives

The Vision for Chippenham (above) can only partly be delivered through the land use allocations which are the concern of the CSA Plan. For the land use allocations in the CSA Plan six objectives have been set:

- Objective 1: delivering economic growth
- Objective 2: providing housing supported by appropriate infrastructure
- Objective 3: improving connectivity and reducing traffic impacts
- Objective 4: improving access to sustainable transport
- Objective 5: minimising landscape impact and protecting the natural, historic and built environment
- Objective 6: reducing flood risk

Sustainability Appraisal

SA is required during the preparation of a Local Plan. SA promotes sustainable development by assessing the extent to which the emerging plan, when judged against reasonable alternatives, will help to achieve relevant environmental, economic and social objectives.

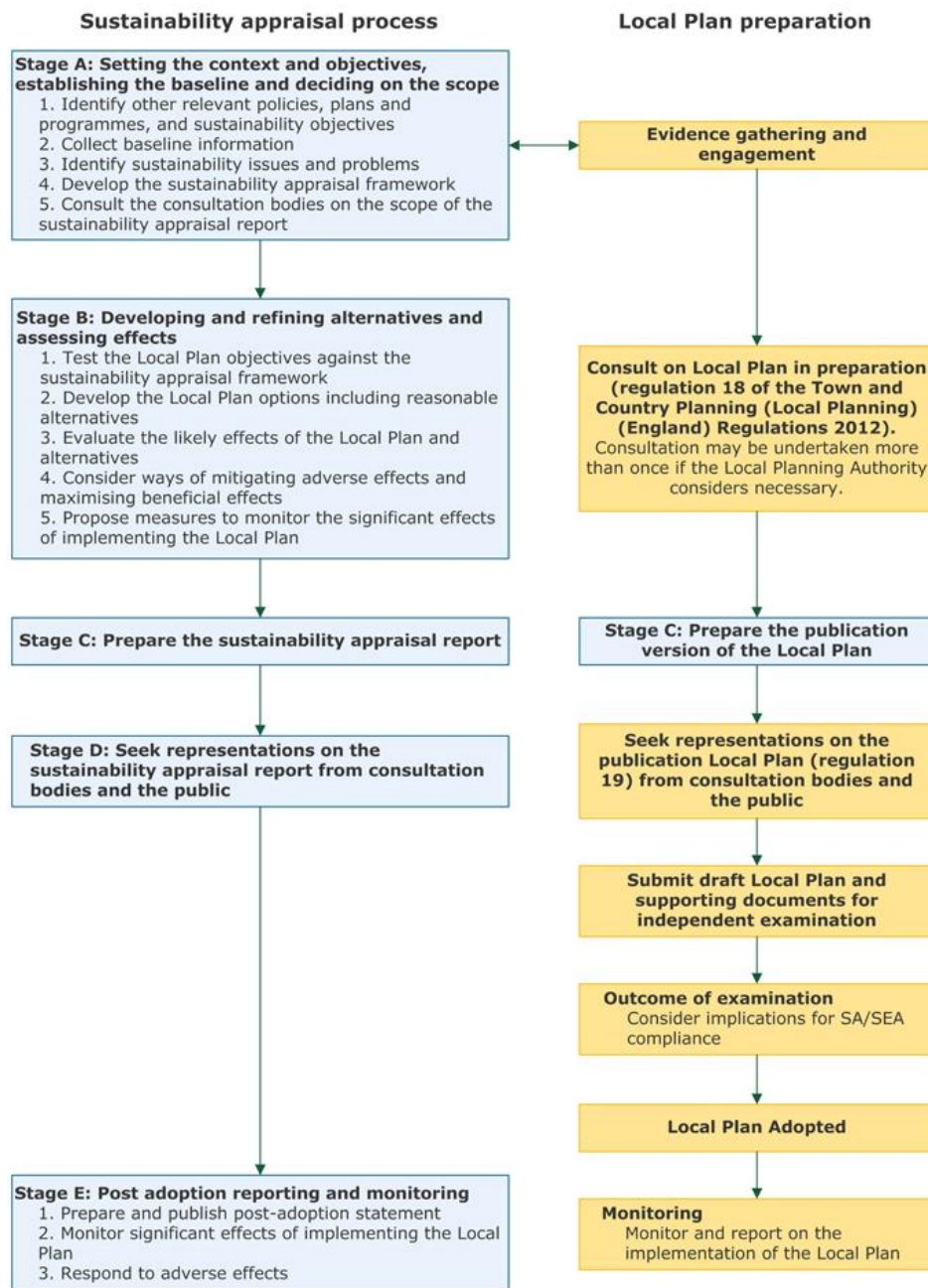
SA is an iterative assessment process which plans and programmes are required to undergo as they are being developed, to ensure that potential significant effects arising from the plan/programme are identified, assessed, mitigated and communicated to plan-makers. It also requires the monitoring of significant effects once the plan/programme is implemented.

The Sustainability Appraisal Framework

The SA Framework is a key component in completing the SA by creating a systematic and easily understood tool that allows the prediction and assessment of effects considered likely to arise from the implementation of the CSA Plan.

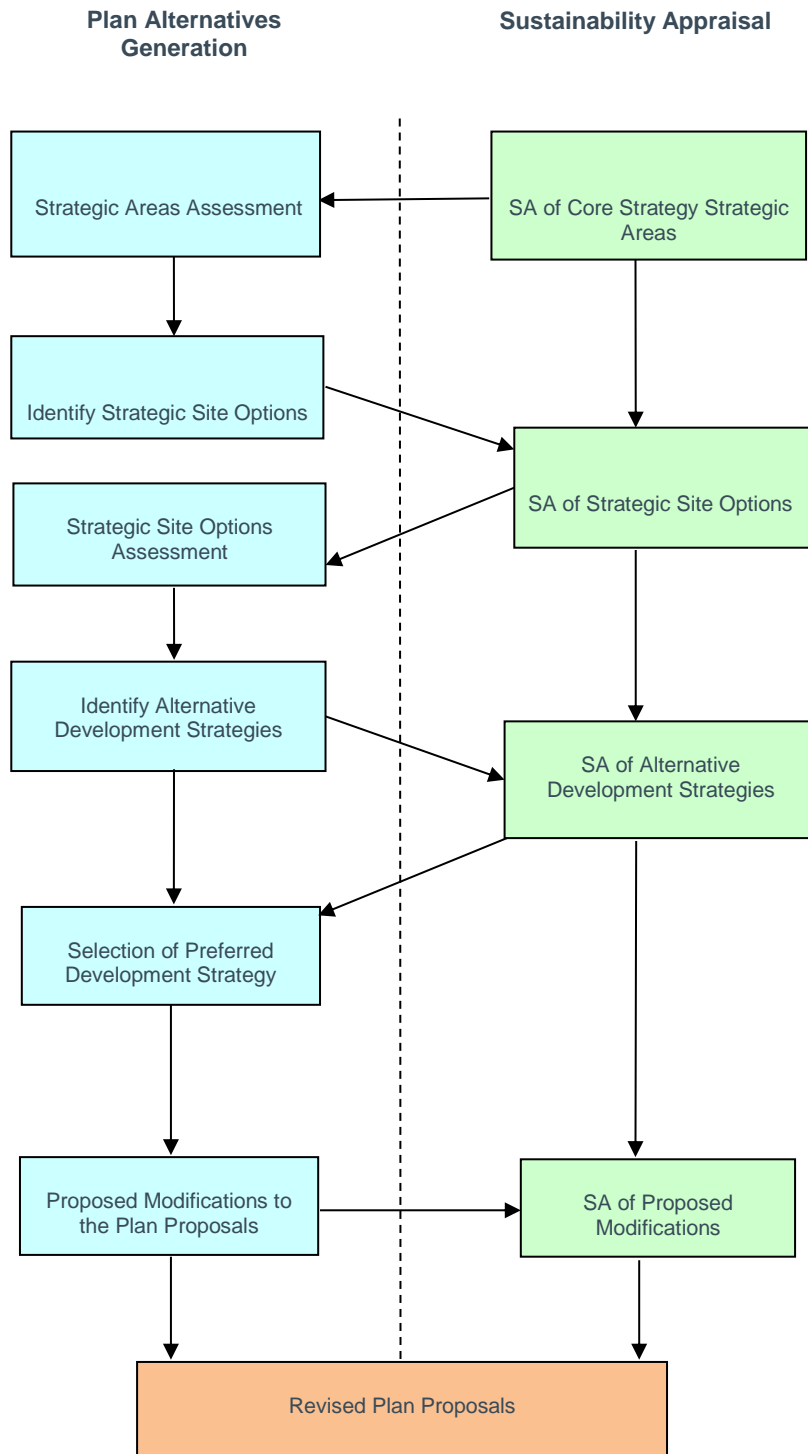
The SA objectives that have been identified for the Draft CSA Plan are as follows:

1. Protect and enhance all biodiversity and geological features and avoid irreversible losses
2. Ensure efficient and effective use of land and the use of suitably located previously developed land and buildings
3. Use and manage water resources in a sustainable manner
4. Improve air quality throughout Wiltshire and minimise all sources of environmental pollution
5. Minimise our impacts on climate change and reduce our vulnerability to future climate change effects
6. Protect, maintain and enhance the historic environment
7. Conserve and enhance the character and quality of Wiltshire's rural and urban landscapes, maintaining and strengthening local distinctiveness and sense of place
8. Provide everyone with the opportunity to live in good quality, affordable housing, and ensure an appropriate mix of dwelling sizes, types and tenures
9. Reduce poverty and deprivation and promote more inclusive and self-contained communities
10. Reduce the need to travel and promote more sustainable transport choices
11. Encourage a vibrant and diversified economy and provide for long-term sustainable economic growth
12. Ensure adequate provision of high quality employment land and diverse employment opportunities to meet the needs of local businesses and a changing workforce



The Draft CSA Plan has been subject to the SA to predict and evaluate the nature and scale of effects. The assessment has been broken down into four sequential sub-stages:

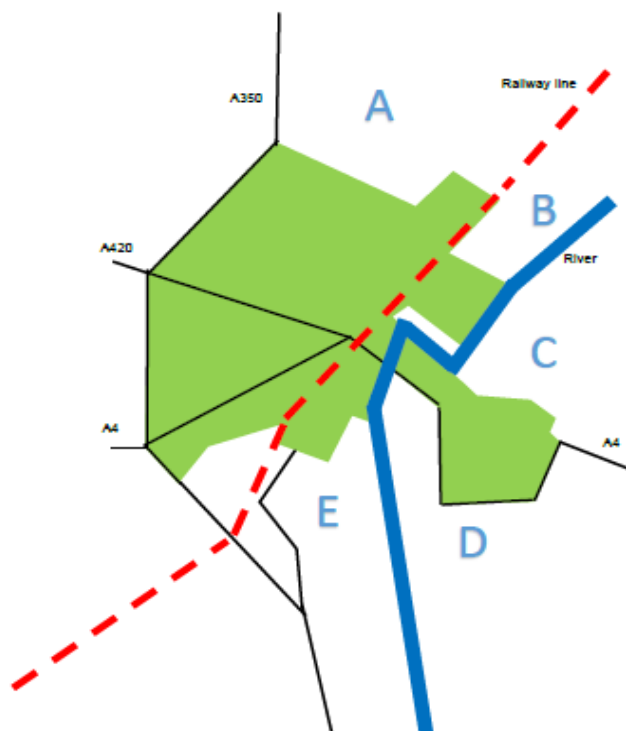
1. Assessment of strategic areas
2. Assessment of strategic site options
3. Assessment of alternative development strategies
4. Assessment of preferred development strategy (in the form of modifications to the 2015 Draft Plan)



Sustainability Appraisal – strategic areas

The strategic area assessment considered five areas (A-E) for growth identified in the Wiltshire Core Strategy as being able to accommodate large mixed use sites. This is illustrated in the diagram below.

Chippenham Strategic Areas



No areas were identified by the Council for assessment west of Chippenham as this direction of growth is not considered suited to the development of large mixed use sites. In addition to this, no areas were considered within existing urban areas of Chippenham given the limited opportunities for redevelopment.

The high level assessment of strategic areas A to E helped inform the Council's decision which strategic area or combination of areas is best suited to accommodate strategic development on the periphery of Chippenham town as well as helping to inform assessment of a number of site options within each strategic area.

The high level assessment reached the following conclusions:

- No absolute constraints to development are identified in any of the five strategic areas.
- All five strategic areas perform similarly with regard to socio-economic SA objectives; although Areas A and E are identified as performing slightly better, having no adverse effects on SA objective 12 (high quality employment land and diverse employment opportunities) whereas Areas B, C and D show some constraints leading to adverse effects for which mitigation is considered achievable.
- All five strategic areas will require improved public transportation in order to be able accommodate new development.
- All areas are assessed to have significant adverse effects on BMV agricultural land. The extent of BMV land across all five Areas makes the constraint problematic to mitigate. It should be noted that the assessments make no distinction between Grades 3a and 3b as no such information is available across all areas. The assessments results are therefore precautionary and will require further testing at the strategic site options assessment stage.
- Area A is assessed to have biodiversity constraints considered problematic to mitigate, whereas with the other strategic areas mitigation is considered achievable.
- Area B is assessed to have landscape constraints considered problematic to mitigate, whereas with the other strategic areas mitigation is considered achievable.

- Areas C and D have constraints considered problematic to mitigate relating to air quality, whereas the constraints for Areas A, B and E are considered achievable to mitigate.
- All areas are equally affected by a number of constraints (relating to use of water resources, climate change, the historic environment and landscape and townscape). Mitigation is considered achievable for all of these constraints.
- Overall, Area E performs marginally better than Areas A, B, C and D; having the least number of constraints considered problematic to mitigate.

Key:

| | | |
|----------------------------------|--|---|
| Not suitable for development | | Absolute sustainability constraints; exclude this option. |
| Significant adverse effect on... | | Sustainability issues; mitigation considered problematic. |
| Limited adverse effect on... | | Sustainability issues; mitigation considered achievable. |
| No adverse effect | | No sustainability constraints. |
| Opportunities to... | | Development will support sustainability objective. |

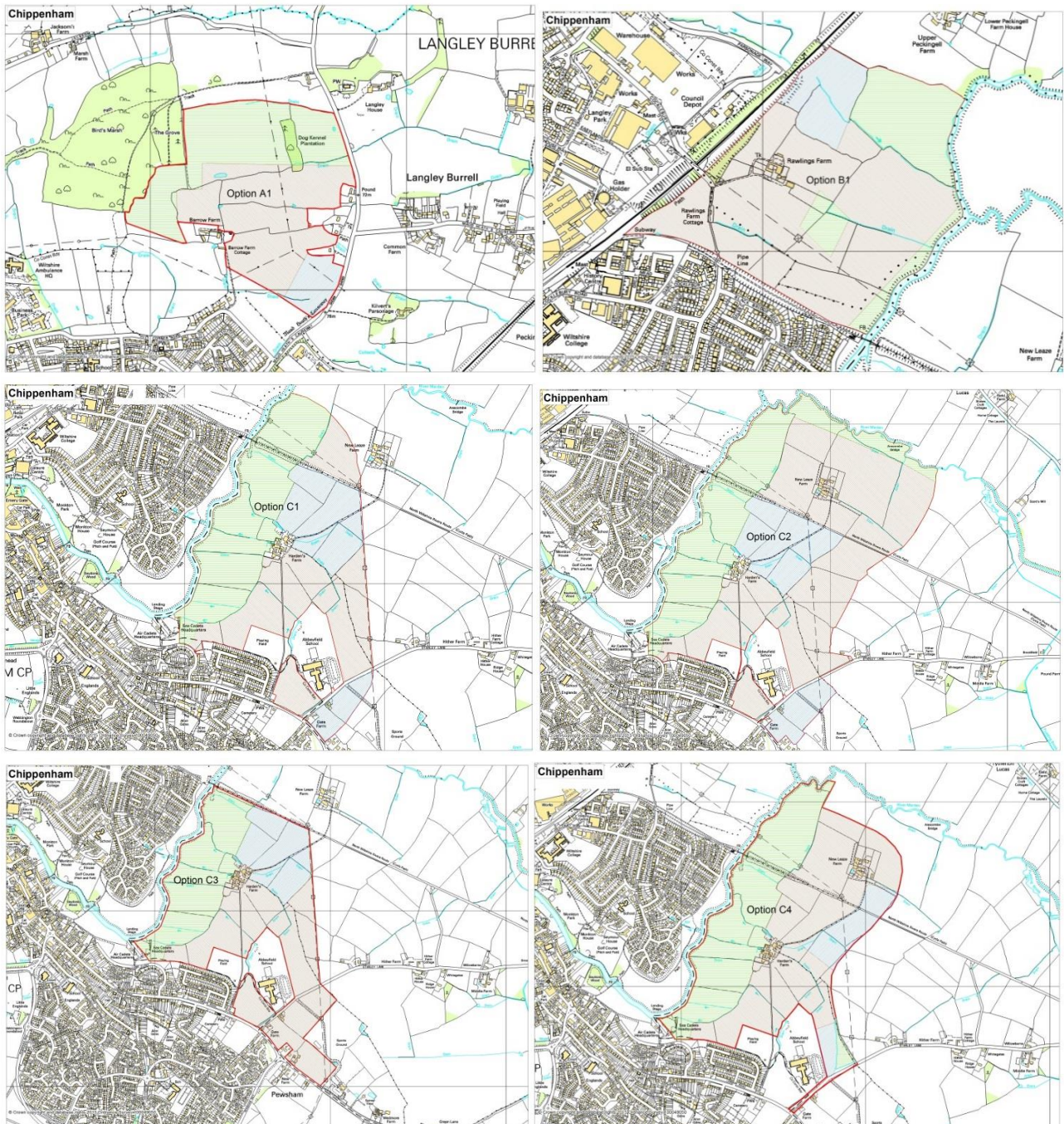
Strategic Areas Assessment Summary Score

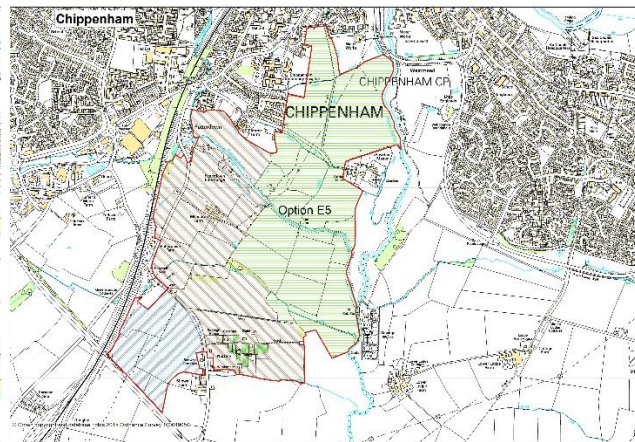
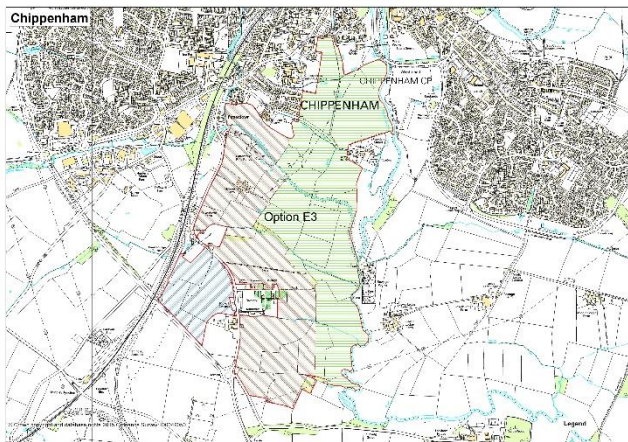
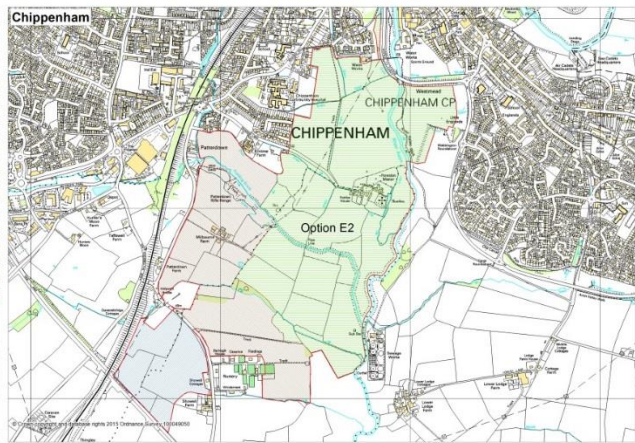
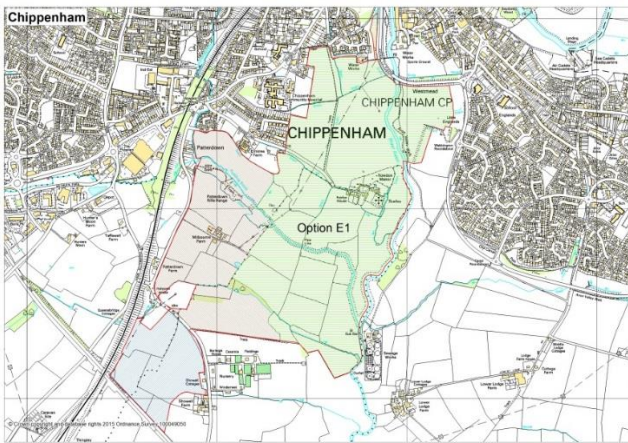
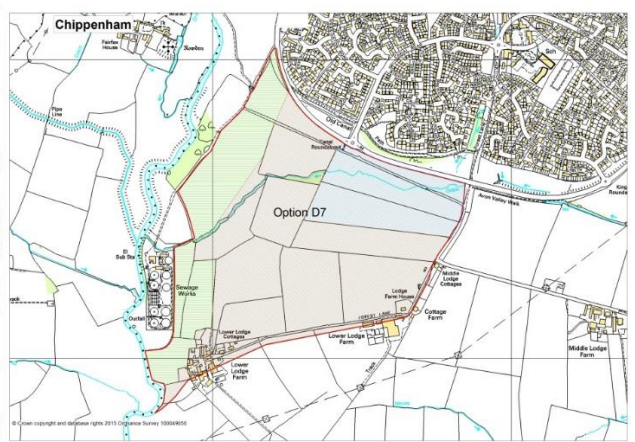
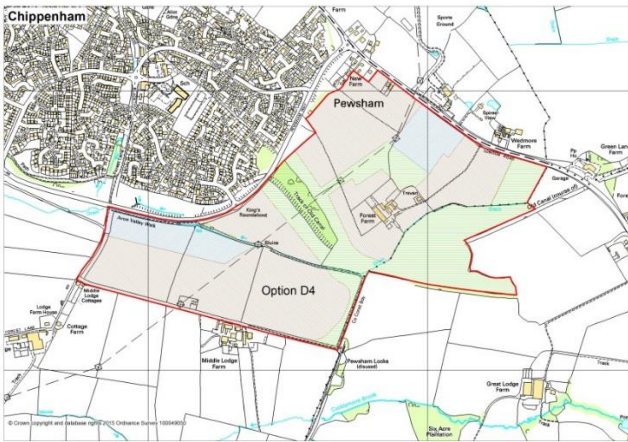
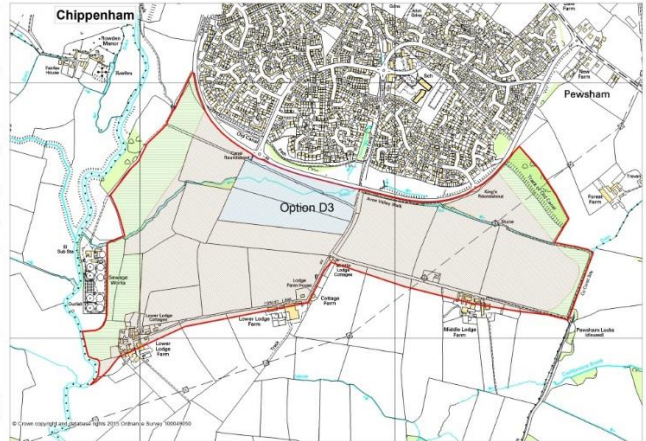
| SA Objective | Area A revised | Area B revised | Area C revised | Area D revised | Area E revised |
|---|----------------|----------------|----------------|----------------|----------------|
| Environmental | | | | | |
| 1. Protect and enhance all biodiversity and geological features and avoid irreversible losses | | | | | |
| 2. Ensure efficient and effective use of land and the use of suitably located previously developed land and buildings | | | | | |
| 3. Use and manage water resources in a sustainable manner. | | | | | |
| 4. Improve air quality throughout Wiltshire and minimise all sources of environmental pollution | | | | | |
| 5. Minimise our impacts on climate change and reduce our vulnerability to future climate change effects | | | | | |
| 6. Protect, maintain and enhance the historic environment | | | | | |
| 7. Conserve and enhance the character and quality of Wiltshire's rural and urban landscapes, maintaining and strengthening local distinctiveness and sense of place | | | | | |
| Socio-economic | | | | | |
| 8. Provide everyone with the opportunity to live in good quality, affordable housing, and ensure an appropriate mix of dwelling sizes, types and tenures | | | | | |
| 9. Reduce poverty and deprivation and promote more inclusive and self- contained communities | | | | | |
| 10. Reduce the need to travel and promote more sustainable transport choices | | | | | |
| 11. Encourage a vibrant and diversified economy and provide for long-term sustainable economic growth | | | | | |
| 12. Ensure adequate provision of high quality employment land and diverse employment opportunities to meet the needs of local businesses and a changing workforce | | | | | |

Sustainability Appraisal – strategic site options

The Council identified a total of 14 strategic site options spread across the five strategic areas that have been assessed in order to identify:

- more sustainable (preferred) site options for consideration in the preferred development strategy;
- less sustainable (not preferred) site options which should only be considered if more sustainable options are undeliverable; and
- options which should not be given further consideration.





The following conclusions and recommendations have been reached:

More sustainable options for development

- Options B1, C1, C3, C4, D7, E1, E2, E3 and E5 are of relatively higher sustainability performance and are recommended for consideration in the development of the preferred development strategy.
- However, significant sustainability issues associated with Options B1, C1, C3, C4, D7 and E3 (as identified in the discussion for each option) would need to be resolved prior to inclusion in the preferred development strategy.

Less sustainable options for development

- Options D1, D3 and D4 are considered less sustainable than those identified above as they deliver the least beneficial effects compared to those in the more sustainable options. They should only be given further consideration in the preferred strategy if the options identified above are not deliverable.

Options which should not be given further consideration

- Option A1 due to the major adverse biodiversity effects identified should not be given further consideration in the preferred strategy.
- Option C2 due to the major adverse landscape effects identified should not be given further consideration in the preferred strategy.

Strategic Site Options Assessment Summary Scores

| Topic / SA Obj. | | A1 | B1 | C1 | C2 | C3 | C4 | D1 | D3 | D4 | D7 | E1 | E2 | E3 | E5 |
|---------------------------------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| ENVIRONMENT | | | | | | | | | | | | | | | |
| Biodiversity | SO1 | | | | | | | | | | | | | | |
| | SO1 | | | | | | | | | | | | | | |
| Land | SO2 | | | | | | | | | | | | | | |
| | SO2 | | | | | | | | | | | | | | |
| | SO2 | | | | | | | | | | | | | | |
| | SO2 | | | | | | | | | | | | | | |
| Water resources | SO3 | | | | | | | | | | | | | | |
| | SO3 | | | | | | | | | | | | | | |
| Air and environmental pollution | SO4 | | | | | | | | | | | | | | |
| | SO4 | | | | | | | | | | | | | | |
| | SO4 | | | | | | | | | | | | | | |
| Climate change - emissions | SO5a | | | | | | | | | | | | | | |
| | SO5a | | | | | | | | | | | | | | |
| Climate change - vulnerability | SO5b | | | | | | | | | | | | | | |
| | SO5b | | | | | | | | | | | | | | |
| Historic | SO6 | | | | | | | | | | | | | | |
| Landscape | SO7 | | | | | | | | | | | | | | |
| SOCIO-ECONOMIC | | | | | | | | | | | | | | | |
| Housing | SO8 | | | | | | | | | | | | | | |
| Community | SO9 | | | | | | | | | | | | | | |
| | SO9 | | | | | | | | | | | | | | |
| | SO9 | | | | | | | | | | | | | | |
| | SO9 | | | | | | | | | | | | | | |
| Sustainable transport | SO10 | | | | | | | | | | | | | | |
| | SO10 | | | | | | | | | | | | | | |
| Economy | SO11 | | | | | | | | | | | | | | |
| | SO11 | | | | | | | | | | | | | | |
| | SO11 | | | | | | | | | | | | | | |
| | SO11 | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|------------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Employment | SO12 | | | | | | | | | | | | | | |
| | SO12 | | | | | | | | | | | | | | |
| | SO12 | | | | | | | | | | | | | | |

Key:

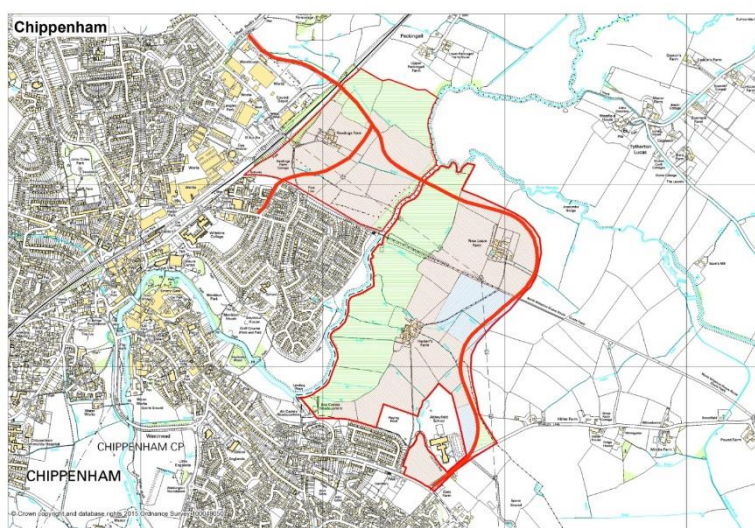
| | |
|--------------------------------------|---|
| Major adverse effect (---) | Option likely to have a major adverse effect on the objective with no satisfactory mitigation possible. Option may be inappropriate for mixed use development |
| Moderate adverse effect (--) | Option likely to have a moderate adverse effect on the objective with difficult or problematic mitigation |
| Minor adverse effect (-) | Option likely to have a minor adverse effect on the objective because mitigation measures are achievable to reduce the significance of effects |
| Neutral or no effect (0) | On balance option likely to have a neutral effect on the objective or no effect on the objective |
| Minor positive effect (+) | Option likely to have a minor positive effect on the objective as enhancement of existing conditions may result |
| Moderate positive effect (++) | Option likely to have a moderate positive effect on the objective as it would help resolve an existing issue |
| Major positive effect (+++) | Option likely to have a major positive effect on the objective as it would help maximise opportunities |

Sustainability Appraisal - alternative development strategies

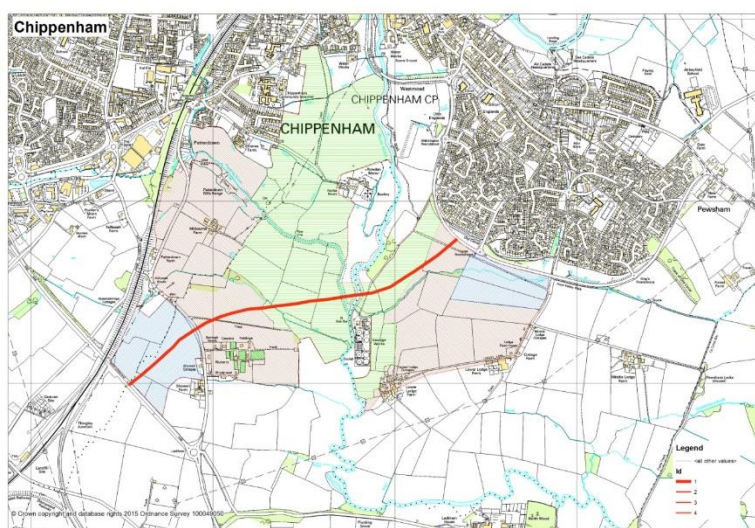
Four alternative development strategies have been identified by the Council as capable of meeting the identified strategic land requirements. These strategies have been assessed in order to identify the preferred development strategy.

Alternative Development Strategies

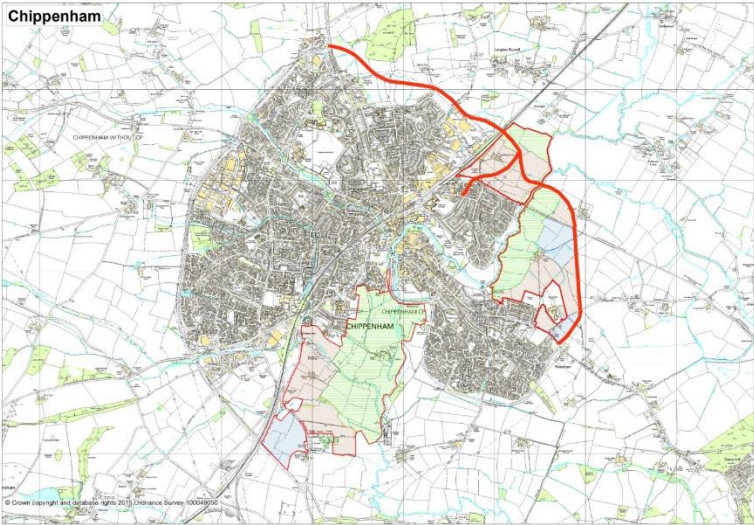
| Strategy name | Site B1 | Site C1 | Site C4 | Site D7 | Site E2 | Site E5 | Dwellings (number) | Employment (ha) | Greenspace (ha) |
|--------------------|---------|---------|---------|---------|---------|---------|--------------------|-----------------|-----------------|
| Eastern Link Road | Yes | | Yes | | | | 2000 | 21.0 | 56.4 |
| Southern Link Road | | | | Yes | | Yes | 2450 | 28.6 | 90.9 |
| Submitted Plan | Yes | Yes | | | Yes | | 2500 | 43.1 | 155.0 |
| Mixed | Yes | | | | | Yes | 2050 | 23.1 | 92.4 |



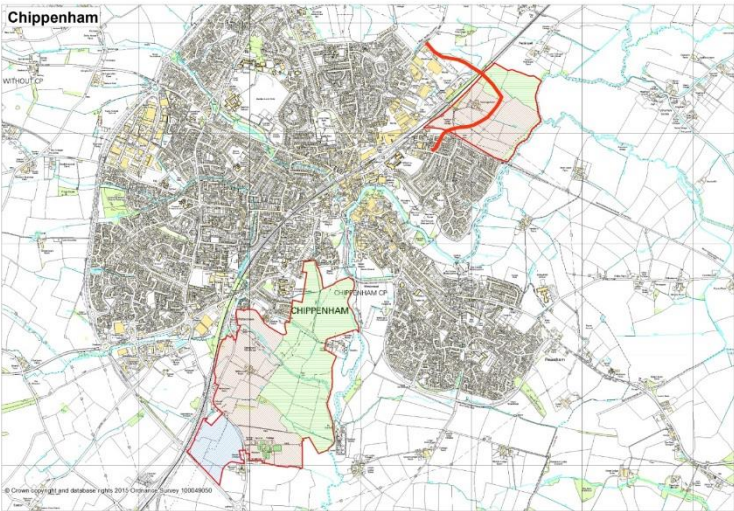
Eastern Link Road



Southern Link Road



Submitted



Mixed

Alternative Development Strategies Assessment Summary Scores

| Topic | SA Obj. | Eastern Link Road | Southern Link Road | Submitted | Mixed |
|---------------------------------|---------|-------------------|--------------------|-----------|-------|
| ENVIRONMENT | | | | | |
| Biodiversity | SO1 | | | | |
| | SO1 | | | | |
| Land | SO2 | | | | |
| | SO2 | | | | |
| | SO2 | | | | |
| | SO2 | | | | |
| Water resources | SO3 | | | | |
| | SO3 | | | | |
| Air and environmental pollution | SO4 | | | | |
| | SO4 | | | | |
| | SO4 | | | | |
| Climate change - emissions | SO5a | | | | |
| | SO5a | | | | |
| Climate change - vulnerability | SO5b | | | | |
| | SO5b | | | | |
| Historic | SO6 | | | | |
| Landscape | SO7 | | | | |
| SOCIO-ECONOMIC | | | | | |
| Housing | SO8 | | | | |
| Community | SO9 | | | | |
| | SO9 | | | | |
| | SO9 | | | | |
| | SO9 | | | | |
| Sustainable transport | SO10 | | | | |
| | SO10 | | | | |
| Economy | SO11 | | | | |
| | SO11 | | | | |
| | SO11 | | | | |
| | SO11 | | | | |
| Employment | SO12 | | | | |
| | SO12 | | | | |
| | SO12 | | | | |

Key:

| | |
|-------------------------------------|---|
| Major adverse effect (---) | Option likely to have a major adverse effect on the objective with no satisfactory mitigation possible. Option may be inappropriate for mixed use development |
| Moderate adverse effect (--) | Option likely to have a moderate adverse effect on the objective with difficult or problematic mitigation |

| | |
|--------------------------------------|---|
| Minor adverse effect (-) | Option likely to have a minor adverse effect on the objective because mitigation measures are achievable to reduce the significance of effects |
| Neutral or no effect (0) | On balance option likely to have a neutral effect on the objective or no effect on the objective |
| Minor positive effect (+) | Option likely to have a minor positive effect on the objective as enhancement of existing conditions may result |
| Moderate positive effect (++) | Option likely to have a moderate positive effect on the objective as it would help resolve an existing issue |
| Major positive effect (+++) | Option likely to have a major positive effect on the objective as it would help maximise opportunities |

The following conclusions have been reached by the SA:

- All alternative strategies present a mix of often common beneficial and adverse effects of varying scales and there is no single strategy that stands out as preferred for all three dimensions of sustainable development (environment, social and economic) simultaneously. For each strategy beneficial effects are more noticeable against socio-economic objectives whereas adverse effects are more prominent for the environmental objectives. The identification of preferred strategy(ies) must be therefore rely on finding the strategy that provides the best balance between the environmental and the socio-economic objectives.

Commonalities between strategies

- All alternative strategies are predicted to have moderate adverse effects of problematic mitigation for greenfield and BMV land (SO2), due to the permanent loss of substantial quantities of BMV agricultural land as insufficient non-BMV land exists within each development strategy to deliver the scale of development proposed. This loss is inevitable;
- All alternative strategies are predicted to have moderate adverse effects of problematic mitigation concerning the generation of increased carbon dioxide emissions (SO5a) from large scale development and vehicle emissions. This increase is inevitable given the large scale of development being proposed;
- All alternative strategies are predicted to have equal potential for the generation of renewable energy (SO5a). All development sites proposed in the strategies hold the potential to support the delivery of on-site renewable or very low carbon generation. This could offset to some extent the predicted significant increase in carbon dioxide emissions;
- All alternative strategies are assessed to have moderate effects deemed problematic to mitigate in terms of effects on heritage (SO6) and landscape character and visual amenity (SO7). Parts of the proposed development for all strategies would occur within lands which contribute to the open setting of nearby Conservation Area(s) and/or which are of an elevated nature and visually prominent and/or which contribute to the visual separation of Pewsham and Naish Hill.
- All alternative strategies are predicted to share minor adverse effects regarding access by sustainable transport to proposed residential and employment areas (SO10, SO12). Improvements to public transport and non-motorised access would be required for the four strategies. These improvements are considered achievable;

- All alternative strategies share minor adverse effects for water resources (SO3). Management measures would be needed to ensure greenfield rates of runoff or better and buffer zones between developable areas and small water courses such as Pudding Brook would be required. This is considered achievable.
- All alternative strategies share minor adverse effects air and environmental pollution (SO4). A balance of beneficial and adverse effects are predicted as a result of the new link roads proposed, but the level of development proposed is expected to lead to a net increase in vehicles using the local roads resulting in minor adverse effects on air quality.

Differences between strategies

- All but the Mixed Strategy alternative are predicted to have moderate adverse effects with mitigation considered problematic associated with designated and undesignated sites of biodiversity and geological value (SO1). This relates primarily to the provision of a bridge crossing the River Avon and dissecting the River Avon County Wildlife Site for the other three strategies. While the design and alignment of the bridge can somehow reduce adverse effects on biodiversity, adequate mitigation of effects would be problematic because of the loss of the wildlife site habitats.
- All but the Mixed Strategy alternative are anticipated to have moderate adverse effects of problematic mitigation associated with water resources (SO3) and vulnerability to climate change (SO5b). This relates to the proposed river bridge crossings proposed by the other three strategies altering river flows and potentially impeding floodwaters.
- From an assessment perspective, prediction of minor adverse effects indicate that mitigation is possible and resulting effects will be minor (not significant), thus not a cause of concern. No effects being predicted aren't a cause of concern either. On the other hand, moderate adverse effects indicate that mitigation is problematic and might actually not work resulting in the occurrence of undesirable significant adverse effects. On this basis, the least number of moderate adverse effects a strategy presents the more preferred it becomes from a sustainability perspective.
- The Mixed Strategy alternative demonstrates the least number of effects deemed problematic to mitigate against environmental objectives and as such is considered the preferred alternative from an environmental sustainability perspective;
- From an assessment perspective, prediction of moderate or major beneficial effects indicate that a strategy would have significant positive effects which are welcomed from a sustainability perspective.
- The Submitted Strategy alternative provides the most major positive effects for socio-economic objectives (SO8, SO11 and SO12). This is due to the provision of a substantial quantum of dwellings (2500) and employment land (43.1 ha) and the provision of infrastructure that will help promote economic growth. It includes land with strong access to the PRN and a choice of locations in close proximity to Principal Employment Areas and existing employment areas. The quantum of employment land is approximately twice as much as for the other three strategies, as the strategy safeguards approximately 21.5 ha of employment land for the future in locations that are likely to become attractive to business in the next plan period. Without this additional employment land, the socio-economic benefits arising from the Submitted Strategy are comparable to those for the other strategies. The inclusion of this additional land (and provision of dwellings well above the residual requirement) in the plan would result in additional Greenfield/BMV site development that may not be necessary at this stage to fulfil the development need at Chippenham. In addition, the river crossing associated with link road is the main cause for moderate adverse effects being identified for the biodiversity, water resources and climate change vulnerability SA objectives.

- It should be noted that the fulfilment of the minimum residual housing and employment requirements (1780 dwellings and 21.5ha of employment land, see Table 1.1) is understood as representing the development need for Chippenham.
- On this basis, the ELR Strategy would deliver the least socio-economic benefits due to the quantum of employment land being proposed being smaller (21ha) than the minimum residual requirement (21.5 ha) and therefore its full potential has not been fulfilled through the proposed strategy. Although this shortfall could be addressed if this Strategy was to be taken forward, the ELR Strategy provides a choice of employment locations but relies on the provision of the ELR to bring land forward with strong access to the PRN. The river crossing associated with link road in the ELR Strategy is the main cause for moderate adverse effects being identified for the biodiversity, water resources and climate change vulnerability SA objectives.
- The SLR Strategy and the Mixed Strategy provide very similar levels of socio-economic benefits across the socio-economic objectives, with the difference that the SLR Strategy provides major beneficial benefits for affordable housing (SO8) and for provision of infrastructure that will help promote economic growth (SO11) as opposed to moderate beneficial effects being identified for the Mixed Strategy. This is due to the larger quantum of dwellings and the link road proposed for the SLR Strategy. Both strategies include employment land with strong access to the PRN and a choice of locations but the SLR strategy relies on the provision of the SLR to improve access to the PRN for the delivery of all employment land. The river crossing associated with link road in the SLR Strategy is the main cause for moderate adverse effects being identified biodiversity, water resources and climate change vulnerability SA objectives, and the provision of dwellings above the residual requirement associated with the SLR would result in additional Greenfield/BMV agricultural land being developed which may not be needed at this stage to fulfil development need in Chippenham. The Mixed Strategy doesn't present such issues.
- Taking into account performance across the environmental and socio-economic objectives in order to find the preferred strategy together with the fulfilment of the minimum residual housing and employment requirements, it is considered that the Mixed Strategy is the alternative with the best sustainability performance and it is recommended as the preferred alternative. However, this would require satisfactory solution of the heritage and landscape adverse effects identified prior to taking this alternative forward.

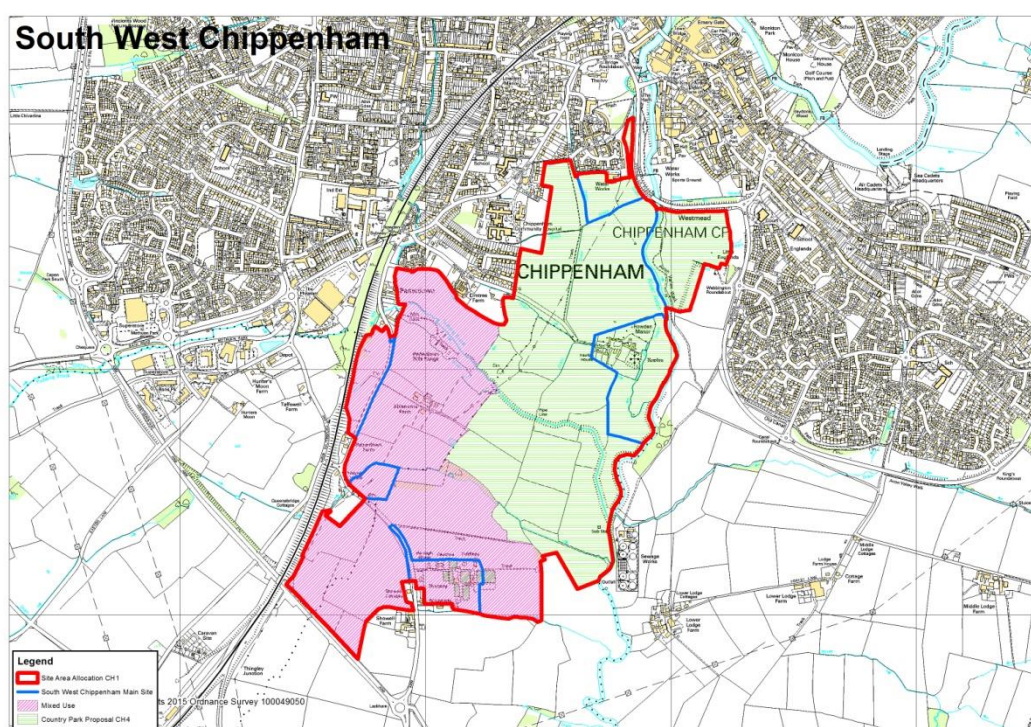
Sustainability Appraisal - preferred development strategy

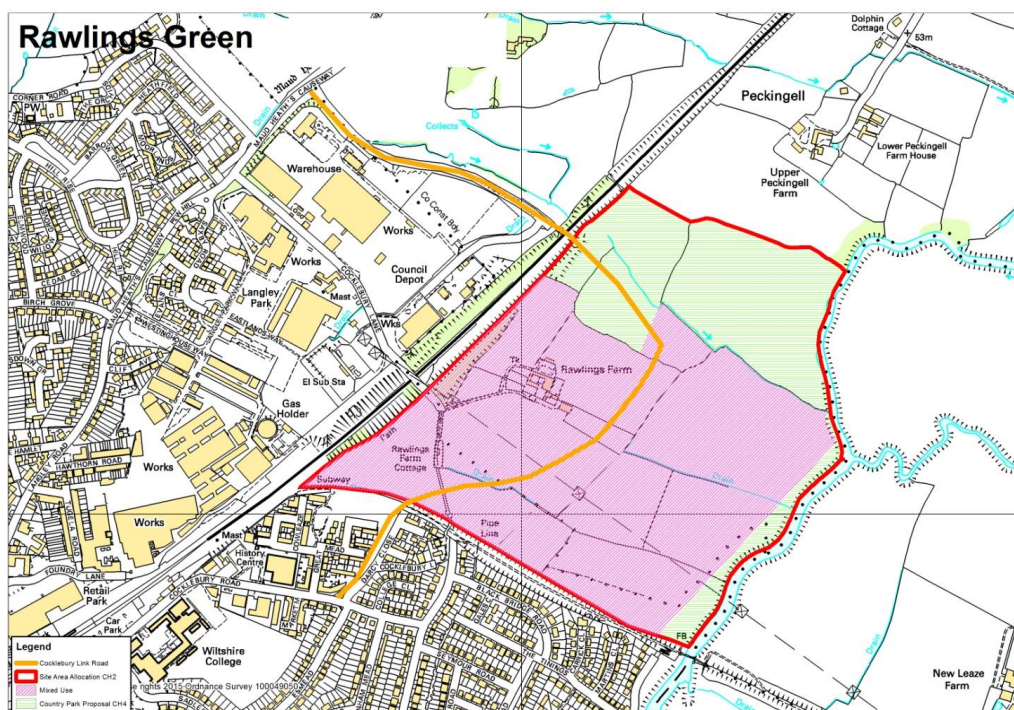
The Council's Schedule of Changes (April 2016) sets out changes to the Pre-Submission Draft CSA Plan. All four policies contained in the revised Draft CSA Plan (according to the April 2016 Schedule of Changes) have been the subject of assessment:

- CH1 South West Chippenham
- CH2 Rawlings Green
- (New) CH4 Chippenham Riverside Country Parks
- (New) Policy CH5 Strategic Transport Network

Allocations in the revised Draft CSA Plan

| Policy Number | Proposed allocations | Size of site (ha) | Total number of dwellings | Size of employment land (ha) | Country park (ha) | Type of site |
|---------------|-----------------------|---|---------------------------|------------------------------|-------------------|---------------------------|
| CH1 | South West Chippenham | 171 (main site) 11 (extension sites) | 1400 | 18 | 100 (approx.) | Greenfield and Brownfield |
| CH2 | Rawlings Green | 91 | 850 | 5 | 10 (approx.) | Greenfield |





A summary table of the effects of the four policies considered in the assessment is presented below. The columns represent the overall summary of effects (SM) column which combines short, medium and long term effects.

Summary effects of policies

| SA Objective | | Policy CH1 | Policy CH2 | Policy CH4 | Policy CH5 |
|--------------|---|------------|------------|------------|------------|
| 1 | Protect and enhance all biodiversity and geological features and avoid irreversible losses | ++ | ++ | +++ | 0 |
| 2 | Ensure efficient and effective use of land and the use of suitably located previously developed land and buildings | -- | --- | +++ | 0 |
| 3 | Use and manage water resources in a sustainable manner | 0 | 0 | + | 0 |
| 4 | Improve air quality throughout Wiltshire and minimise all sources of environmental pollution | +/- | +/- | + | + |
| 5a | Minimise our impact on climate change... | +/- | +/- | + | + |
| 5b | And reduce our vulnerability to future climate change | + | + | ++ | 0 |
| 6 | Protect, maintain and enhance the historic environment | - | - | + | 0 |
| 7 | Conserve and enhance the character and quality of Wiltshire's rural and urban landscapes, maintaining and strengthening local distinctiveness and | ++/- | ++/- | ++ | 0 |

| | | | | | |
|----|---|------|-----|----|---|
| | sense of place | | | | |
| 8 | Provide everyone with the opportunity to live in good quality, affordable housing, and ensure an appropriate mix of dwelling sizes, types and tenures | +++ | ++ | 0 | 0 |
| 9 | Reduce poverty and deprivation and promote more inclusive and self-contained communities | ++/- | +/- | + | 0 |
| 10 | Reduce the need to travel and promote more sustainable transport choices | ++ | +/- | + | 0 |
| 11 | Encourage a vibrant and diversified economy and provide for long-term sustainable economic growth | ++ | + | ++ | + |
| 12 | Ensure adequate provision of high quality employment land and diverse employment opportunities to meet the needs of local business and a changing workforce | ++ | + | ++ | + |

| Assessment Scale | Assessment Category | Significance of Effect |
|------------------|------------------------------|------------------------|
| +++ | Strongly positive | Significant |
| ++ | Moderately positive | Significant |
| + | Slightly positive | Not Significant |
| 0 | Neutral or no obvious effect | Not Significant |
| - | Slightly negative | Not Significant |
| -- | Moderately negative | Significant |
| --- | Strongly negative | Significant |

Policy CH1 – South West Chippenham

The changes to Policy CH1 and supporting text have been assessed. Revised policy CH1 allocates approximately 182ha (previously 171ha) of land in South West Chippenham. It provides 1400 dwellings split between the main site and the extension sites and 18ha of land for employment (B1, B2, and B8 uses of the Use Classes Order); land for a 2 Form Entry primary school and a local centre are provided in the main site.

This sizeable allocation is likely to provide social and economic significant benefits such as providing good quality, affordable housing and varied housing (SA objective 8) and promoting more inclusive and self-contained communities (SA objective 9). The site provides a substantial amount of employment land, thereby contributing positively to the growth of the local economy and to the provision of jobs (SA objectives 11 and 12).

The allocation is well located in relation to existing facilities and services, and will provide additional facilities such as the riverside country park and enhanced routes for walking and cycling to and from the town centre, thereby reducing the need to travel by car and promoting more sustainable transport choices, positively contributing to SA objective 10.

The provision of the riverside country park (approx. 100ha) as part of the allocation will protect and enhance wildlife. This is likely to have significant beneficial effects upon biodiversity (SA objective 1) given the sizeable country park being created which will strongly counteract any negative effects on

biodiversity arising from housing and employment development in part of the site. The park will make a significant contribution to Wiltshire's Green Infrastructure providing an important wildlife refuge and corridor.

Some adverse effects are associated with the policy, which primarily relate to environmental factors. The allocated area of land is greenfield and approximately half of it is classified as Grade 1 Agricultural Land resulting in a significant adverse effect for SA objective 2. However, it should be noted that the revised allocation CH1 includes the current Showell Nurseries (making the best use of brownfield land) thereby reducing some of the need for further greenfield land development.

Related to this, there may be significant adverse effects on water resources (SO3), reducing vulnerability to climate change (SO5b), heritage (SO6) and landscape (SO7) as a result of development. Even though the proposed riverside country park will protect the visual amenity in the north of the allocation, the flat and wide open views associated with the floodplain and will minimise the urbanising influence development would have on the rural landscape to the east, there are landscape issues associated with the rest of the site. The proposed riverside country park encompasses the Rowden Conservation Area thus affording protection to this heritage asset. Effects on its settings will need to be carefully considered. Any new development on Greenfield sites is likely to increase run-off by virtue of increased impermeable area; surface water management that achieves equivalent or less than current Greenfield rates of run-off will be required so there will be no deterioration of current run-off conditions. Policy CH1 addresses these issues by requiring development to take place in accordance with a masterplan for the site informed by detailed evidence which will include a Landscape Visual Impact Assessment, Heritage Assessment, Surface Water Management Plan and Flood Risk Assessment.

Adverse effects for air quality and environmental pollution (SO4) and greenhouse gas emissions (SO5a) are predicted due increased private car use as result of development. This will be counteracted to some extent by the provision of enhanced routes for cycling and walking to and from the town centre and employment outside the town centre avoiding traffic through the centre of Chippenham.

The sustainability issues and opportunities highlighted above will be further addressed through the master plan for the site and the detailed evidence that will be required to inform its development.

Policy CH2 – Rawlings Green

The changes to Policy CH2 and supporting text have been assessed. Policy CH2 continues to allocate land (approximately 50ha) at Rawlings Green. This allocation is smaller than the allocation CH1 at South West Chippenham. Policy CH2 provides 650 dwellings; 5ha of land for employment (B1, B2, C2, D1 and D2 of the Use Classes Order); land for a 2 Form Entry primary school and the Cocklebury Link Road.

Similarly to allocation CH1, allocation CH2 is well located in relation to existing facilities and services and will provide additional facilities such as the riverside country park and enhanced routes for walking and cycling to and from the town centre, thereby reducing the need to travel by car and promoting more sustainable transport choices, positively contributing to SA objective 10. However, while the allocation has potential for strong access by public transport, current access is weak to moderate and public transport will need to be improved for this allocation.

The allocation will provide good quality, affordable housing and varied housing (SA objective 8) and employment land which will contribute positively to the growth of the local economy and to the provision of jobs (SA objectives 11 and 12).

A riverside country park (approx. 10ha) will also be provided as part of the development of the site. This is likely to have significant beneficial effects upon biodiversity (SA objective 1) through the provision of the riverside country park which will protect and enhance wildlife and counteract any negative effects from development in part of the site.

There are a number of adverse effects associated with the policy, which primarily relate to environmental factors. The allocated area of land is greenfield and predominantly Grade 2 Agricultural Land resulting on a significant adverse effect for SA objective 2. Associated with this, there may be adverse effects on water resources (SO3), reducing vulnerability to climate change (SO5b), heritage (SO6) and landscape (SO7) as a result of development. Loss of countryside and effects on existing views, particularly those from Rawlings Farm are likely to occur. At the same time, the proposed riverside country park and the proposed retention and enhancement of landscaping such as hedgerows and trees have the potential to significantly enhance the character of the local landscape. Rawling Farm (a listed building) exists within the allocation and open agricultural land within the allocation provides the setting of the Langley Burrell and Tytherton Lucas Conservation Areas. These may be affected by the proposed development. Any new development on Greenfield sites is likely to increase run-off by virtue of increased impermeable area; surface water management that achieves equivalent or less than current Greenfield rates of run-off will be required so there will be no deterioration of current run-off conditions. Policy CH1 addresses these issues by requiring development to take place in accordance with a masterplan for the site informed by detailed evidence which will include a Landscape Visual Impact Assessment, Heritage Assessment, Surface Water Management Plan and Flood Risk Assessment.

Adverse effects for air quality and environmental pollution (SO4) and greenhouse gas emissions (SO5a) are predicted due increased private car use as result of development. The CLR link road will provide access to the existing built up area to the south of the site. Whilst this could divert traffic from the centre of Chippenham, potentially enhancing air quality in these areas, the new link road may encourage traffic through new areas increasing air pollution for existing and new receptors and is unlikely to be sufficient to offset the increase in vehicles from development.

The sustainability issues and opportunities highlighted above will be further addressed through the master plan for the site and the detailed evidence that will be required to inform its development.

(New) Policy CH4 – Chippenham Riverside Country Parks

New Policy CH4 has been assessed. This new policy provides clarification on the uses that developers will be required to consider in the development of land for the provision of the three country parks. These uses include informal open space; extended existing and new rights of way; areas for protection and enhancement of nature conservation interest; sports pitches and enhanced routes for cycling and walking to and from the town centre. In addition, no new buildings or structures are to be built within flood risk areas.

Policy CH4 delivers significant positive benefits for biodiversity (SA objective 1) as the creation of large country parks will allow for the protection of important nature conservation value of many of the features and habitats in these areas and their protection and enhancement in perpetuity. It will also give a very positive contribution for the retention and enhancement of the Green Infrastructure Network and introduce new green corridors. Significant positive benefits too for SA objective 2 as no soil resources will be lost and will also be protected in perpetuity and SA objective 6 (adapting to climate change) by helping to mitigate against potential urban heat island effects as well as attenuate rainfall run-off and contribute to reducing flood risk.

The proposed country parks also have the potential to significantly enhance the character of the local landscape as well as providing landscape screening and buffer of the proposed development (SA objective 7). In the case of Rowden Conservation Area the country park will provide a large informal open space area that includes the historic feature and landscape setting.

Policy CH4 delivers significant positive benefits for the economy. Being high quality environments, the proposed country parks offer comparative location advantages to attract and retain business, raising property and land values due to the proximity to their proximity and stimulating further economic investment (SA objective 11). The natural environment setting provided by the proposed country parks will provide an attractive setting for new business premises well as providing opportunities for recreation by workers during the working day. Also, high quality environments around where people

live and work can inspire higher productivity and lower absenteeism amongst workforces (SA objective 12).

Policy CH4 also delivers benefits for water resources protection, air pollution reduction, carbon dioxide sequestration, social inclusiveness and more sustainable transport choices. No negative effects have been identified for this policy.

(New) Policy CH5 – Strategic Transport Network

New Policy CH5 addresses Wiltshire's Council commitment to improve the A350 and enhance journey time reliability to support development growth at Chippenham and other locations in Wiltshire. It has been demonstrated that proposals in the Draft CSA Plan will have a cumulative severe impact on Junction 17 of the M4 which will result in queuing in the M4 and the A350 at Junction 17. The new policy supports the part signalisation of Junction 17.

Part signalisation of Junction 14 of the M4 would lead to improved journey times on the A350 due to reduced congestion, particularly at peak times, therefore contributing to sustainable economic growth in general and improving accessibility to existing and future employment centres in particular.

The policy proposals are unlikely to have any effects on social objectives and environmental objectives, apart from a potential slight improvement on air quality and a potential slight reduction on the growth of carbon dioxide emissions due to better traffic flowing.

Note: The proposed modification to introduce policy CH5 was subsequently withdrawn by the Council in the documents released for consultation in May 2016. Instead a new section was inserted into the Plan in consultation with Highways England relating to the Strategic Road Network recognising the need for improvements to Junction 17.

Conclusions

From this sustainability assessment, it is clear that many of the significant beneficial effects associated with the Draft CSA Plan's policies relate to social and economic considerations. The main significant adverse effects that have been identified relate to environmental issues.

When considered together and given the scale of the proposed development, there are likely to be elevated effects, both beneficial and adverse, arising from the proposed policies:

- the two riverside country parks are likely to lead to a significant improvement of biodiversity in the River Avon corridor (SA objective 1);
- the significant loss of Grade 1 and 2 agricultural land may affect agricultural production around Chippenham (SA objective 2);
- the scale of development is likely to see an increase in the number of private car journeys (SA objective 10) which will lead to increased air pollution (SA objective 4) and greenhouse gas emissions (SA objective 5a);
- substantial contribution to the economic and social sustainability of the town, by providing housing, employment and transport infrastructure; and
- provision of significant green infrastructure making a significant contribution to environmental, social and economic sustainability.

A number of recommendations were made in order to mitigate adverse effects that were identified for the revised Draft CSA Plan. These have suggested improvements to the policies in terms of wording and requirements. Where relevant, the recommendations were incorporated by the Council into the revised Draft CSA Plan version which was submitted for consultation. It is considered that these further changes improved the overall sustainability of the revised Draft CSA Plan.

Proposed monitoring programme

Significant effects of the CSA Plan will be monitored and the proposed monitoring programme sets out a series of targets and indicators against SA objectives.

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