

DRAFT GLOUCESTER CITY PLAN:

HABITATS REGULATIONS ASSESSMENT SCREENING REPORT

OCTOBER 2016



Gloucester City Council Draft Gloucester City Plan:

Habitats Regulations Assessment Screening Report

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1.0 Introduction

The Plan & The HRA

- 1.1 Gloucester City Council (GCC) is preparing the Gloucester City Plan (GCP) to guide future development in the Local Authority area. The GCP will set out an overall strategy to guide development across the City in the period up to 2031. The GCP sets out how much new development (land for housing and employment) is needed, and where this development should take place, as well as providing information about the infrastructure (roads, schools, and open spaces) needed to support new development.
- 1.2 Enfusion has been commissioned to progress the Habitats Regulations¹ Assessment (HRA) of the Draft GCP on behalf of the Council in their role as the competent authority. HRA is a process that assesses the likely significant effects (individually and in combination) of proposed development on EU designated sites. At the same time, Enfusion is also undertaking the Sustainability Appraisal (incorporating Strategic Environmental Assessment) of the Draft GCP; this work has been undertaken concurrently, with the two processes informing each other as appropriate.

Background

- 1.3 GCC, in partnership with Cheltenham Borough Council and Tewkesbury Borough Council, have produced a Joint Core Strategy² (JCS) which sets out the strategic planning framework for the delivery of development across the three local authority areas. The Gloucester, Cheltenham & Tewkesbury (GCT) JCS (plan period to 2031) sets out the housing and employment needs for the Gloucester City area, the strategic direction for development growth, and strategic policies to guide development. The GCP covers the administrative area of Gloucester City and is part of a hierarchy of planning guidance, sitting underneath the higher level JCS and national planning guidance³.
- 1.4 The GCT JCS identifies an overall level of growth across the three local authority areas of 35,175 new dwellings in the period up to 2031. 14,359 of these dwellings are identified to meet the needs of the Gloucester City area. Gloucester City is unable to fully meet its identified needs within the existing administrative boundary, with an identified local urban capacity for 7,685 new dwellings. The GCT JCS therefore identifies strategic allocations / urban extensions to meet the residual need.

¹ The Conservation of Habitats and Species Regulations 2010 (as amended). Online at: http://www.legislation.gov.uk/uksi/2010/490/contents/made [August 2016]

³ National Planning Policy Framework (March 2012) Online at: <u>https://www.gov.uk/government/publications/national-planning-policy-framework--2</u> [August 2016]

² Gloucester, Cheltenham & Tewkesbury Joint Core Strategy 2013. Online at <u>http://www.gct-jcs.org/</u> [August 2016]

As the GCT JCS progresses through examination and proposed main modifications, more work is being undertaken to address the shortfall in meeting Gloucester's housing needs.

1.5 The GCP will allocate the remainder of the identified local sites (7,685 new dwellings) which will contribute to meeting the development needs of Gloucester. The GCP will also provide local planning policies that will, alongside the GCT JCS, be used to guide and manage development over the plan period to 2031.

Consultation

- 1.6 The Habitats Regulations require the plan making/competent authority to consult the appropriate nature conservation statutory body. Due to the proximity to Wales and the potential of far reaching effects on European designations, both Natural England and Natural Resources Wales (NRW) will be consulted on this draft HRA Screening Report, as was the GCT JCS.
- 1.7 The Habitats Regulations leave consultation with other bodies and the public to the discretion of the plan making authority. In addition to the statutory consultation undertaken with the appropriate nature conservation body, this HRA Screening Report is available for wider public consultation alongside the Draft GCP.

Purpose & Structure of Report

- 1.8 This report documents the process and the findings of the HRA screening for the Draft GCP. Following this introductory section, the document is organised into a further three sections:
 - Section 2 summarises the requirements for HRA, the methods used, and the background to the Draft GCP.
 - Section 3 outlines the screening process and the findings of the screening assessment with technical details presented in the Appendices I-IV.
 - Section 4 summarises the findings of the HRA and explains the next steps.

2.0 Habitats Regulations Assessment & The Draft Plan

Requirements for Habitats Regulations Assessment

- 2.1 The Conservation of Habitats and Species Regulations 2010 (as amended) [the Habitats Regulations] require that HRA is applied to all statutory land use plans in England and Wales. The aim of the HRA process is to assess the potential effects arising from a plan against the conservation objectives of any site designated for its nature conservation importance.
- 2.2 The Habitats Regulations transpose the requirements of the European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna [the Habitats Directive] which aims to protect habitats and species of European nature conservation importance. The Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which are designated under European Directive (2009/147/EC) on the conservation of wild birds [the Birds Directive]. In addition, Government guidance⁴ also requires that Ramsar sites (which support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance [Ramsar Convention]) are included within the HRA process as required by the Regulations.
- 2.3 The process of HRA is based on the precautionary principle and evidence should be presented to allow a determination of whether the impacts of a land-use plan, when considered individually or in combination with the effects of other plans and projects against the conservation objectives of a European Site, would adversely affect the integrity of that site. Where effects are considered uncertain, the potential for adverse impacts should be assumed.

Guidance & Good Practice

- 2.4 The application of HRA to Local Plans has been informed by a number of key guidance and practice documents. Guidance for HRA was published by the Government⁵ based on the European Commission's (2001) guidance for the Appropriate Assessment (AA) of Plans. The Governments guidance recommends three main stages to the HRA process:
 - Stage 1: Screening for Likely Significant Effect
 - **Stage 2:** Appropriate Assessment, Ascertaining Effects on Integrity
 - **Stage 3**: Mitigations Measures and Alternatives Assessment.

⁴ DEFRA, 2012. The Habitats and Wild Birds Directives in England and its seas- Core guidance for developers, regulators & land/marine managers

⁵ DCLG, 2006, Planning for the Protection of European Sites: Appropriate Assessment

- 2.5 If alternative solutions or avoidance/ mitigation measures to remove adverse effects on site integrity cannot be delivered, then current guidance recommends an additional stage to consider Imperative Reasons of Overriding Public Interest (IROPI) for why the plan should proceed. For the HRA of land use plans, IROPI is only likely to be justified in a very limited set of circumstances and must be accompanied by agreed, deliverable compensation measures for the habitats and species affected. Since the HRA of the JCS did not identify any potential residual adverse effects, this additional stage is not needed for this lower level local plan and is not considered any further in this report.
- 2.6 More recently, the nature conservation regulator Natural England has produced additional, detailed guidance⁶ on the HRA of Local Development Documents that complements the DCLG guidance, and builds on assessment experience and relevant court rulings. In 2012 DEFRA published a Core Guidance⁷ document relating to the Habitats & Wild Birds Directive, providing information on decision making and the HRA process for developers, regulators and land/marine managers.

Method

2.7 The approach taken for the HRA of the Draft GCP follows the method set out in the formal guidance documents. The key stages of the HRA process and the specific tasks undertaken for each stage are set out in Table 2.1.

Stages	Habitats Regulations Assessment
Stage 1:	1. Identify European sites in and around the plan area.
Screening for	2. Examine the conservation objectives of each interest feature of the
Likely	European site(s) potentially affected.
Significant	3. Analyse the policy/ plan and the changes to environmental
Effects	conditions that may occur as a result of the plan. Consider the extent
	of the effects on European sites (magnitude, duration, and location)
	based on best available information.
	4. Examine other plans and programmes that could contribute
	(cumulatively) to identified impacts/ effects.
	5. Produce screening assessment based on evidence gathered and
	consult statutory nature conservation body on findings.
	6. If effects are judged likely or uncertainty exists – the precautionary
-	principle applies proceed to Stage 2.
Stage 2:	1. Agree scope and method of Appropriate Assessment with statutory
Appropriate	nature conservation body.
Assessment	2. Collate all relevant information and evaluate potential impacts on
	site(s) in light of conservation objectives.
Stage 3:	1. Consider how effect on integrity of site(s) could be avoided by
	changes to plan and the consideration of alternatives (e.g. an

Table 2.1: HRA Key Stages:

⁶ Tyldesley, D., 2009, The Habitats Regulations Assessment of Local Development Documents (Natural England)

⁷ DEFRA, 2012. The Habitats and Wild Birds Directives in England and its seas- Core guidance for developers, regulators & land/marine managers

Stages	Habitats Regulations Assessment
Mitigation	alternative policy/ spatial location). Develop mitigation measures
Measures	(including timescale and mechanisms for delivery).
and	2. Prepare HRA/ AA report and consult statutory body.
Alternatives	3. Finalise HRA/AA report in line with statutory advice to accompany
Assessment	plan for wider consultation.

The Draft Gloucester City Plan

Aims & Principles

2.8 The Gloucester City Plan has an identified Vision and strategic Principles to help deliver this Vision. These are as follows:

Vision:

"Between 2016 and 2031 the City Council, together with its partners, stakeholders and the community will work together in positively delivering the Joint Core Strategy and Gloucester City Plan.

During this time significant progress will have been made in the regeneration of the City Centre and elsewhere within the City. Gloucester will be a flourishing, healthy, modern and ambitious City, where people feel safe and happy in their community and are proud to live and work.

Gloucester will grow as an economy and make a significant contribution to the wider economy of Gloucestershire, building on its strengths as a business location. The City Council will work with partners and neighbouring authorities to ensure that the economic development required beyond its boundary benefits Gloucester, while at the same time, supporting business growth and expansion within the City itself.

A significant number of new decent homes will have been delivered in a way that reflects the type and tenure needed by the local community and that supports economic growth.

Health and wellbeing will be a key consideration in all planning decisions ensuring the protection and provision of active streets, open spaces, playing fields, community infrastructure, environmental quality, connectivity and access.

New development will be built to the highest possible standard of design and will be focused on protecting the quality and local distinctiveness of the City.

Gloucester's unique heritage, culture, and natural environment will be safeguarded and enhanced to create a highly attractive place that all residents and visitors can enjoy."

Principles:

1.To ensure development contributes to the delivery of a transforming City which brings regeneration benefits, promotes sustainable development and makes the most efficient use of brownfield land and buildings

2. To ensure that new development is supported by the necessary infrastructure

3. To regenerate the City Centre and other areas of the City in accordance with the Council's adopted strategies and maximise benefits associated with Housing Zone status

4. To develop a City Centre that provides for the needs of the 21st Century, with increased choice, an improved environment and to protect it from inappropriate competition in other locations

5. To provide a balanced network of local and district centres that provide for the everyday shops, services and facilities needed by the local community.

6. To provide a balanced mix of new homes that provide for the needs and aspirations of the local community, working with neighbouring authorities where they are providing for housing needs of the Gloucester community.

7. To encourage and facilitate inward and home grown investment, attracting innovative growth sectors, create high and stable levels of economic growth and increases job opportunities.

8. To improve educational attainment, skills and learning opportunities.

9. To protect and enhance the City's leisure, recreation and environmental assets, including valuable heritage, public open space, allotments, areas of nature conservation, sensitive landscapes, playing fields and sporting facilities.

10. To encourage a vibrant and safe evening and night-time economy in the City Centre that appeals to all age groups and encourages more people to stay overnight.

11. To tackle poverty and deprivation in the worst affected areas of the City.

12. To deliver development that achieves high quality design that reduces crime and the fear of crime, builds positively on local distinctiveness and contributes to the creation of an active, connected and sustainable City.

13. To ensure that development minimises its impact on climate change through sustainable construction and design, encourages the use of sustainable forms of transport and integrates with and makes the most of existing infrastructure.

14. To improve health and wellbeing through good design that promotes opportunities for all residents to lead 'activity lives', by providing access to good quality open spaces, playing fields and community facilities, and protecting air quality and residents from pollution and contamination.

Level and Distribution of Growth

2.8 The overall level of proposed growth in Gloucester is identified within the GCT JCS. As detailed in paragraph 1.4 Gloucester cannot currently meet its housing needs within its administrative boundaries. The GCP proposes the

allocation of 7,685 new dwellings through identified local sites. The GCT JCS (and through ongoing work) identifies strategic allocations / urban extensions to meet the residual need. Much of this growth is directed towards the housing regeneration zones (Greater Blackfriars and the Railway Corridor) and within the central area. The GCP also provides planning policies that will, alongside the GCT JCS, be used to guide and manage development over the plan period to 2031.

Site Allocations & Local Policies

- 2.9 The Draft GCP proposes 25 site allocations for new housing and employment development and 69 local policies to guide and manage development. The policies cover a range of topics including:
 - Historic Environment
 - Health & Wellbeing
 - Flooding & Water Management
 - Design
 - Climate Change
 - Natural Environment
 - Retail & City/Town Centres
 - Housing
 - Economy & Employment

3.0 Screening

The JCS HRA (2013)

- 3.1 The GCT JCS (2013) has set the overall level of growth and a HRA was undertaken during its preparation. The HRA screening of the JCS found that for 12 of the 13 identified European sites there would be no significant effects, although there was some uncertainty regarding the in combination effects on 7 European sites as a result of changes to Air Quality, Disturbance and Water Levels & Quality. There was also uncertainty around the significant impacts that short range atmospheric pollution might have on the Cotswolds Beechwoods SAC. Therefore, an AA was undertaken to gain a more detailed understanding of the possible significant impacts which may occur.
- 3.2 The AA made a number of recommendations to ensure potential impacts on European sites did not occur, including conducting a transport assessment and a water cycle study, and strengthening the flooding policy. Overall the HRA concluded that with consideration to the recommendations provided, the Draft JCS would not have significant alone or in combination effects on the integrity of the identified European sites. There was some uncertainty raised during consultation and examination by Natural England regarding the potential recreational impacts on the Cotswolds Beechwoods SAC and proposed mitigation measures. However, this has now been resolved through a HRA Addendum Report⁸ (May 2015) and a subsequent Memorandum of Understanding between the JCS authorities and Natural England. No further concerns on the HRA have been raised during examination of the JCS and therefore, it can be concluded that the strategic development proposed for Gloucester in the JCS will not have adverse effects on the identified European sites.

Screening the Draft GCP 2016

- 3.3 Many of the European sites that were scoped into the HRA for the JCS are also applicable for consideration in the HRA of the Draft GCP. However, the Bredon Hill, Lyppard Grange Ponds, River Usk, River Wye, Wye Valley Woodlands and Dixton Wood European sites have not been included in this HRA given their distance of over 15km from the City. The European sites which have been included in this HRA for the Draft GCP are listed below:
 - Cotswold Beechwoods SAC
 - Rodborough Common SAC
 - Severn Estuary SAC
 - Wye Valley and Forest of Dean Bat Sites SAC
 - Severn Estuary SPA

⁸ <u>http://www.gct-jcs.org/Documents/Examination-Document-Library/SAPR119A-HRA-Addendum-Cotswold-Beechwoods.pdf</u>

- Walmore Common SPA
- Severn Estuary Ramsar

Characterisation of European Sites

3.4 A general overview of the European sites scoped into the assessment is provided below in Table 3.1. More detailed characterisations including conservation objectives and the specific vulnerabilities for each site are provided in Appendix I.

Table 3.1: Summary of European Site Characterisations

Cotswolds Beechwoods SAC

The Cotswolds Beechwoods SAC is the most westerly block of Asperulo-Fagetum beech forests in the UK. The woods are structurally varied with blocks of high forest and areas of remnant Beech Coppice. The area is designated as a SAC due to the presence of both Asperulo-Fagetum Beech forests and semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia). The site has a number of vulnerabilities including recreational activities and invasive non-native species.

Rodborough Common SAC

Rodborough Common is the most extensive area of semi-natural dry grassland in the Cotswolds, and represents CG5 Bromus erectus – Brachypodium pinnatum grassland. The area is a designated SAC due to the presence of semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia) on the site. The site has a number of vulnerabilities including recreational activities and grazing activities.

Severn Estuary SPA/SAC/Ramsar

The Severn estuary SPA/SAC/Ramsar is the largest coastal plain estuary in the UK with extensive mudflats and sandflats, rocky shore platforms, shingle and islands. Saltmarsh fringes the coast, backed by grazing marsh with freshwater and occasional brackish ditches. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second highest tidal range in the world (after the Bay of Fundy in Canada) at more than 12 meters. This tidal regime results in plant and animal communities typical of the extreme physical conditions of strong flows, mobile sediments, changing salinity, high turbidity and heavy scouring. The resultant low diversity invertebrate communities, that frequently include populations of ragworms, lugworms and other invertebrates in high densities, form an important food source for passage and wintering birds. The site is important in the spring and autumn migration periods for waders moving along the west coast of Europe, as well as in winter for large numbers of waterbirds including swans, geese, ducks and waders. These bird populations are regarded as internationally important. The Severn estuary SPA/SAC/Ramsar has a number of vulnerabilities including changes in abiotic conditions, changes in hydraulic conditions and industrial activities.

Wye Valley & Forest of Dean Bat Sites SAC

The Wye Valley and Forest of Dean Bats SAC straddles the Wales-England border and covers an area of 142.7ha. The SAC contains by far the greatest concentration of lesser horseshoe bat *Rhinolophus hipposideros* in the UK, totalling about 26% of the national population. The site also supports the greater horseshoe bat *Rhinolophus ferrumequinum* in the northern part of its range, with about 6% of the UK population. The site has a number of vulnerabilities including recreational activities and ecosystem modifications.

Walmore Common SPA

Walmore Common is located 10km South-West of Gloucester. The site is a wetland overlying peat providing a variety of habitats including improved neutral grassland, unimproved marshy grassland and open water ditches. The site is an important location for of Bewick's Swan Cygnus columbianus bewickii. The site has a number of vulnerabilities including recreational activities and changes in biotic conditions.

Other Plans and Programmes

3.5 A review of other plans and programmes in and around the Gloucester plan area was conducted to consider the potential for significant in-combination effects. The review found that a number of existing plans could have a variety of in-combination effects with the Draft GCP. These potential significant effects include impacts on air pollution through increased traffic; increased levels of disturbance through recreational activities, and noise and light pollution; increased levels of water abstraction and impacts on water quality through increased wastewater discharge.

The Effects of The Plan

- 3.6 As detailed in paragraph 2.9 the Draft GCP proposes a number of local sites for development and a number of policies to guide development. Housing, employment and infrastructure development has the potential to generate a range of environmental effects that could have impacts on European sites.
- 3.7 The first stage in the screening process considered the likely significant effects (LSEs) arising from implementation of the policies and proposed local sites and whether these have the potential to lead to potential impacts. The screening identified that two Draft GCP Policies (climate change & employment land allocations) and 18 site allocations for which the LSEs could potentially lead to impacts (detailed in this HRA Report Appendix III) alone or in-combination with each other as follows in Table 3.2 below.

Table 3.2: Draft GCP Policies and Site Allocations Identified for LSE

Climate Change: F8 Potential of River and Canal
Economy & Employment: B3 New Employment Sites
Site Ref: 2, Site Name: Quayside & Barbican (part of Greater Blackfriars)
(Site Allocation SA02)
Site Ref: 3, Site Name: Gloucester Prison (part of Greater Blackfriars) (Site
Allocation SA02)
Site Ref: 4, Site Name: Ladybellgate Street Car Park (part of Greater
Blackfriars) (Site Allocation SA02)
Site Ref: 7, Site Name: Southgate Moorings (Site Allocation SA03)
Site Ref: 10, Site Name: Land at 'The Wheatridge' (Site Allocation SA05)
Site Ref: 13, Site Name: Former Civil Service Club (Site Allocation SA08)
Site Ref: 18, Site Name: Former Bishops College (Site Allocation SA13)
Site Ref: 20, Site Name: Land East of Waterwells (Site Allocation SA27)
Site Ref: 21, Site Name: Land at Clearwater Drive (Site Allocation SA15)
Site Ref: 23, Site Name: Spinnaker Park, Spinnaker Road (Site Allocation
SA17)
Site Ref: 25, Site Name: Land at Rea Lane, Hempsted (Site Allocation
SA19)
Site Ref: 28, Site Name: Land adjacent to St Oswalds Retail Park (Site
Allocation SA22)
Site Ref: 29, Site Name: Allstones, Myers Road (Site Allocation SA23)
Site Ref: 30, Site Name: Barnwood Manor, Barnwood Road (Site Allocation
SA24)
Site Ref: 32, Site Name: Holly House, Barnwood (Removed as a Site
Allocation)
Site Ref: 33, Site Name: Fieldview House, Barnwood/Abby (Removed as a
Site Allocation)
Site Ref: 39, Site Name: Land East of Hempsted Lane (Site Allocation A)
Site Ref: 40, Site Name: MOD Site, Hempsted (Site Allocation B)
Site Ref: 41, Site Name: Former Contract Chemicals (Site Allocation C)
Site Ref: 44, Site Name: Land adjacent to Wall's Factory (Site Allocation D)

3.8 A summary of the types of effects and impacts that can arise from housing and employment development is provided in Table 3.3 below.

Table 3.3: Housing, Employment and Infrastructure Development - PossibleEffects & Impacts on European Sites

Effects on European Sites	Impact Types
Habitat (& species) fragmentation and loss	Direct land take, removal of green/ connecting corridors/ supporting habitat, changes to sediment patterns (rivers and coastal locations) Introduction of invasive species (predation)
Disturbance	Increased recreational activity (population increase)

Effects on European Sites	Impact Types
	Noise and light pollution (from development and increased traffic)
Changes to hydrological regime/ water levels	Increased abstraction levels (new housing) Increased hard standing non-permeable surfaces/ accelerated run-off Laying pipes/ cables (surface & ground) Topography alteration
Changes to water quality	Increase in run-off/ pollutants from non-permeable surfaces (roads, built areas) Increased air pollution (eutrophication) (traffic, housing) Increased volume of discharges (consented)
Changes in air quality	Increased traffic movements Increased emissions from buildings

3.9 The potential impacts were then screened against each of the European sites scoped into the HRA (Appendix IV). This included consideration of the environmental pathways and sensitivities of the sites, as well as mitigation measures provided by the Draft GCP Policies and the JCS strategic policies. Appendix III and IV detail the results of the HRA screening process for the Draft GCP; the key findings are summarised below.

Screening Assessment

3.10 HRA screening good practice combines both a plan and a European site focus. The policy screening removes from consideration those elements of the plan unlikely to have effects on European sites. The remaining plan elements (summarised above) can then be considered in more detail for their impacts on European sites. The site focus considers the impacts and potential effects identified through the policy screening, in the light of the environmental conditions necessary to maintain site integrity for the European sites scoped into the assessment.

Air Quality

3.11 For 6 out of the 7 identified European Sites assessed, it was found that there was no risk of significant effects occurring either alone or in-combination through increased levels of short range and diffuse atmospheric pollutions caused as a result of the Draft GCP. This was either because there were no existing environmental pathways or that the European site was not vulnerable to atmospheric pollutants and critical loads were not being exceeded. The Draft GCP has a number of policies designed to protect air quality and minimise the impacts of increased atmospheric pollution and traffic:

- Design: G6- Cycle Parking & Storage- This policy encourages uses of cycling (sustainable transport) by ensuring developments have space for cycle storage.
- Design: G14- Transport Arrival Nodes- This policy encourages the regeneration key public transport nodes which should help reduce traffic by encouraging use of sustainable public transport methods.
- Natural Environment: F5- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets.
- Health & Wellbeing: Policy D1- Active Design- This policy ensures walking and cycling are encouraged through design.
- Health & Wellbeing: Policy D10-Air Quality- The policy ensures developments do not contribute to increased air pollution and design should reduce exposure to pollutants.
- Health & Wellbeing: Policy D12-Pollution- The policy prevents development which will cause pollution that will have a negative effect on the environment.
- Sustainable Transport: Policy H1- The policy encourages new development to provide cycle parking and storage.
- Sustainable Transport: Policy H1- The policy encourages improvement to the sustainable transport network.
- Natural Environment: F1- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.

The GCT JCS also provides strong guidance through strategic policies to mitigate potential effects on European Sites. Relevant JCS policies that will provide mitigation against Air Quality effects are listed below.

- Policy C6 requires new development to contribute to a healthier urban environment through maintaining or improving air quality.
- Policy S3 requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.
- Policy S4 requires that new development should be designed to prioritise movement by sustainable transport modes and encourage.
- Policy \$10 development is required to protect and enhance Green Infrastructure (GI) assets.
- Policy C7 requires all proposals to include provision of transportation measures including opportunities for installation or retrospective installation of new transport technologies such as electric car plug-in and ultra-low emission vehicle fuelling.
- Policy D2 this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a transport, a dust and a GI assessment.
- Policy D3 requires that the exacerbation of atmospheric pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.

- 3.12 The screening identified that Walmore Common SPA was at potential risk of impacts from short range atmospheric pollution due to the close proximity of the A48 which runs within 200 metres of the site and the potential increase in traffic along this road caused by future development. However, an increase in the level of activity on the A48 as a result of the GCP is unlikely to be significant due to the proposed local scale of development. It is considered that the mitigation provided through the draft policies should be sufficient to ensure that there are no significant impacts on Walmore Common caused by short range atmospheric pollution. The overall level of growth has already been assessed through the GCT JCS and is considered unlikely to lead to any significant negative effects given the policy mitigation in place.
- 3.13 It is therefore determined that there will be no adverse effects either alone or in combination- on any of the European sites with regard to short range and diffuse atmospheric pollution. Mitigation provided through the GCT JCS and Draft GCP policies is comprehensive and detailed enough to ensure the protection of European sites from significant impacts. The policies encourage the use and development of sustainable transport methods as well as the protection of air quality and vulnerable landscapes from negative effects caused by development.

Disturbance

- 3.14 The screening found that whilst all of the European sites are located outside of the Plan area they are vulnerable to disturbance impacts. Due to this vulnerability every site was considered at risk from disturbance activities with further details provided in Appendix IV. The Draft GCP has a number of policies which can mitigate disturbance at European Sites:
 - Health & Wellbeing: Policy CPXX-Outdoor Space- The policy aims to ensure amenity and garden space is retained, ensuring people will not need to go to the SAC for recreational use if there are spaces for recreation in the city boundary.
 - Health & Wellbeing: Policy CPXX-Open Space- The policy ensures large employment and residential developments will need to provide an appropriate amount of open public space.
 - Health & Wellbeing: Policy CPXX- Provision of Playing Pitches in New Development- The policy will ensue that development residents sporting needs are met, ensuring recreational space will be provided.
 - Health & Wellbeing: Policy CPXX- Protection of Open Space and Playing Fields- The policy ensure that the loss of open space and playing fields is prevented.
 - Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets.

- Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.
- Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution (including light pollution) that will have a negative effect on the environment.
- Health & Wellbeing: Policy CPXX-Noise- The policy states that unacceptable noise levels next to noise sensitive zones will not be permitted.
- Natural Environment: CPXX- Biodiversity- The policy will protect biodiversity from possible harm caused by development.

The GCT JCS also provides strong guidance through strategic policies to mitigate potential impacts on European Sites. Relevant JCS policies that will provide mitigation against disturbance effects are listed below.

- Policy C6 Supporting Healthy Lifestyles and Wellbeing. The Policy requires new development to contribute to a healthier urban environment through minimizing disturbance associated with light, noise and odour. It also requires that new development delivers public open space that is safe, encourages active use and maximizes opportunities for informal recreation.
- Policy S3 requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.
- Policy S4 requires that new development should provide and/or link into Green Space.
- Policy \$10 development is required to protect and enhance Green Infrastructure (GI) assets.
- Policy D2 this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a noise, a dust and a GI assessment.
- Policy D3 requires that the exacerbation of noise pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.
- 3.15 Both Cotswolds Beechwoods SAC and Walmore Common SPA were identified as being the closest sites to the Plan Area. The Cotswolds Beechwoods SAC site is located only 2.4km from the Plan area and the Walmore Common SPA is 4km from the Plan area. Both sites are known to be vulnerable to disturbance. Through the screening it was found that the policies in the GCP Draft should prevent significant impacts occurring. These policies include the creation of open spaces in the plan boundary for recreational use and the protection of playing fields from any potential loss. The policies also ensure noise and light pollution is restricted especially when near sensitive zones such as a European designation. In this case the scale of development and location of proposed sites can also be taken into

consideration. Many of the proposed sites are not close enough to European sites to be a risk of having significant effects, the closest site allocations are also small scale development sites.

3.16 As a result of policy mitigation, the location of European sites in regard to the Plan Area, and the local scale of the proposed development sites, the screening has found that none of the European sites will be subject to significant alone or in combination effects caused by disturbance.

Water Levels and Quality

- 3.17 The screening found that for 3 out of the 7 European Sites there was no risk of significant effects occurring from changes in water levels or water quality as these sites are not considered to be vulnerable to changes in hydraulic conditions. The Draft GCP has a number of policies designed to protect water quality and maintain water levels:
 - Flooding and Water Management: F7- The policy aims to prevent flooding from occurring and effective and sustainable management of water resources.
 - Design: G16 Design & Climate Change- The policy states that development should have a high level of environmental awareness and contributes to climate change mitigation and prevention.
 - Natural Environment: F1 Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.
 - Health & Wellbeing: Policy D12 Pollution The policy prevents development which will cause pollution (including water pollution) that will have a negative effect on the environment.
 - Health & Wellbeing: Policy D13 Contamination This policy is aimed to prevent contamination of groundwater.
- 3.18 The GCT JCS also provides strong guidance through strategic policies to mitigate potential effects on European Sites. Relevant JCS policies that will provide mitigation against disturbance effects are listed below.
 - Policy S3 requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for water use and efficiency and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so. This should reduce water abstraction and could reduce pollution.
 - Policy \$10 requires development to protect and enhance Green Infrastructure assets which could help intercept pollutants and improve water quality.
- 3.19 Both Walmore Common SPA and the River Severn Ramsar/SAC/SPA sites were noted as being at risk to potential impacts due to their particular

vulnerabilities to changes in hydraulic conditions. The screening process showed that there were no environmental pathways which would lead to significant effects on water quality and level for Walmore Common SPA. For the River Severn Ramsar/SAC/SPA there are possible environmental pathways through the streams and rivers which flow into the River Severn from Gloucester. However, mitigation provided through policies in the Draft GCP was found to be sufficient to ensure no impacts would occur. The policies include effective and sustainable management of water resources, the prevention of pollution (including water pollution) and contamination of groundwater, and the protection of vulnerable landscapes, including European sites.

- 3.20 The screening found that overall none of the European sites should be subject to significant effects either alone or in combination as a result of changes in water quality and water levels. The Draft policies, alongside the GCT JCS policies, provide comprehensive and sufficient mitigation to ensure that the sites are protected from any effects caused by developments within the Plan Area.
- 3.21 Table 3.5 summarises the potential impacts arising from the Draft GCP policies and site allocations (Appendix III) against the identified European sites (Appendix IV), considering the mitigation outlined above to determine if there is the potential for likely significant effects. Table 3.4 provides the key to Table 3.5 to describe the results of the assessment.

Likely Significant Effect	Yes	Appropriate Assessment required
No Likely Significant Effect	No	No further assessment required
Significant Effect Uncertain	Ş	Uncertain, precautionary approach taken and Appropriate Assessment required

Table 3.4- Screening Summary Key

Table 3.5 – HRA Screening Summary

	Potential Likely Significant Effects				
European sites	Air Quality	Disturbance	Water Levels & Quality		

	A٩	IC ¹⁰	Α	IC	Α	IC
Cotswold Beechwoods SAC	No	No	No	No	No	No
Rodborough Common SAC	No	No	No	No	No	No
Severn Estuary SAC/ SPA/ Ramsar	No	No	No	No	No	No
Walmore Common SPA	No	No	No	No	No	No
Wye Valley and Forest of Dean Bat Sites SAC	No	No	No	No	No	No

⁹ AA required alone?

¹⁰ AA required in combination?

4.0 HRA Summary, Conclusions & Next Steps

Summary

- 4.1 This report presents the methods used and the findings arising from the HRA Screening of the Draft GCP. The HRA has been undertaken in accordance with extant guidance and good practice and has been informed by the previous HRA work on the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy.
- 4.2 The Draft GCP will, alongside the GCT JCS, deliver new housing and employment development to meet the identified needs of the resident populations, and deliver policies to guide and manage future growth over the plan period to 2031. The GCP covers the administrative area of Gloucester City and is part of a hierarchy of planning guidance, sitting underneath the higher level JCS and national planning guidance.
- 4.3 The GCT JCS identifies that 14,359 new dwellings are required to meet the needs of the Gloucester City area. Gloucester City is unable to fully meet its identified needs within the existing administrative boundary, with an identified local urban capacity for 7,685 new dwellings. The GCT JCS (including through ongoing work) identifies strategic allocations / urban extensions to meet the residual need. The GCP will allocate the remainder of the identified local sites (7,685 new dwellings).
- 4.3 The screening identified two Draft GCP policies and 18 site allocations for which the impacts could potentially lead to significant effects either alone, or in combination with other plans and programmes. The two policies and 18 site allocations with their potential effects were then screened against each of the 7 European sites scoped into the HRA. This included consideration of the environmental pathways and sensitivities of the sites, as well as mitigation provided by Draft GCP and the GCT JCS.

Conclusion

4.4 The screening found that none of the European sites identified will be impacted by significant alone or in combination effects from atmospheric pollution, disturbance or changes in water levels and quality potentially arising from implementation of the Draft GCP. Although some sites were at risk to potential effects, policy mitigation provided through the Draft GCP and GCT JCS was comprehensive enough to ensure that the European sites will not be adversely affected. Therefore, no further Appropriate Assessment is required to be undertaken for this HRA.

Consultation and Next Steps

4.5 These findings will be subject to further consultation comments and advice from the relevant regulator, Natural England. HRA is an iterative process and

further work will be undertaken alongside the Gloucester City Plan to inform its development.

4.6 The findings of this plan level HRA do not obviate the need to undertake HRA for lower level, project scale/ implementation plans where there is potential for significant effect on one or more European sites. The findings of this HRA should be used to inform any future assessment work.

Appendix I: European Site Characterisations

- Cotswold Beechwoods SAC
- Rodborough Common SAC
- Severn Estuary SAC
- Wye Valley and Forest of Dean Bat Sites SAC
- Severn Estuary SPA
- Walmore Common SPA
- Severn Estuary Ramsar

Special Areas of Conservation

Site Name: Cotswolds Beechwoods Location Grid Ref: SO898134 JNCC Site Code: UK0013658 Size: 585.85ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
Site Description	The Cotswold Beechwoods represent the most westerly extensive blocks of Asperulo-Fagetum beech forests in the UK. The woods are floristically richer than the Chilterns, and rare plants include red helleborine <i>Cephalanthera rubra</i> , stinking hellebore <i>Helleborus foetidus</i> , narrow-lipped helleborine <i>Epipactis leptochila</i> and wood barley <i>Hordelymus europaeus</i> . There is a rich mollusc fauna. The woods are structurally varied, including blocks of high forest and some areas of remnant beech coppice.
Qualifying Features	 Annex I habitats primary reason for selection: Asperulo-Fagetum beech forests Annex I habitats qualifying feature: Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia)
Conservation Objectives	 With regard to the natural habitats and/or species for which the site has been designated (the Qualifying Features" listed below); Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; The extent and distribution of qualifying natural habitats The structure and function (including typical species) of qualifying natural habitats, and The supporting processes on which qualifying natural habitats rely

Site Name: Cotswolds Beechwoods Location Grid Ref: SO898134 JNCC Site Code: UK0013658 Size: 585.85ha Designation: SAC	Habitats Regulations Assessment: Data Proforma				
	Qualifying Features: H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia); Dry grasslands and scrublands on chalk or limestone H9130. Asperulo-Fagetum beech forests; Beech forests on neutral to rich soils				
Vulnerabilities (includes existing pressures and trends)	 Negative Impacts: Outdoor sports and leisure activities, recreational activities: High-Inside Interspecific floral relations: High-Inside Problematic native species: High- Both Invasive non-native species: High- Both 				

Site Name: Rodborough Common Location Grid Ref: SO849036 JNCC Site Code: UK0012826 Size: 104.26ha	Habitats Regulations Assessment: Data Proforma
Designation: SAC	
Site Description	Rodborough Common is the most extensive area of semi-natural dry grasslands surviving in the Cotswolds of central southern England, and represents CG5 Bromus erectus – Brachypodium pinnatum grassland, which is more or less confined to the Cotswolds. The site contains a wide range of structural types, ranging from short turf through to scrub margins, although short-turf vegetation is mainly confined to areas of shallower soils.
Qualifying Features	 Annex I habitats primary reason for selection: Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia) for which this is considered to be one of the best areas in the United Kingdom.
Conservation Objectives	With regard to the natural habitats and/or species for which the site has been designated (the Qualifying Features" listed below);
	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;
	 The extent and distribution of qualifying natural habitats The structure and function (including typical species) of qualifying natural habitats, and The supporting processes on which qualifying natural habitats rely
	Qualifying Features: H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia); Dry grasslands and scrublands on chalk or limestone

Site Name: Rodborough Common Location Grid Ref: SO849036 JNCC Site Code: UK0012826 Size: 104.26ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
Vulnerabilities (includes existing pressures and trends)	 Negative Impacts: Grazing: High- Inside Air pollution, air-borne pollutants: High- Both Outdoor sports and leisure activities, recreational activities: High- Inside

Site Name: Severn Estuary Location Grid Ref: ST321748	Habitats Regulations Assessment: Data Proforma
JNCC Site Code: UK0013030 Size: 73715.4	
Designation: SAC	
Site Description	The Severn Estuary is the largest coastal plain estuary in the UK with extensive mudflats and sandflats, rocky shore platforms, shingle and islands. Saltmarsh fringes the coast, backed by grazing marsh with freshwater and occasional brackish ditches. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second highest tidal range in the world (after the Bay of Fundy in Canada) at more than 12 meters. This tidal regime results in plant and animal communities typical of the extreme physical conditions of strong flows, mobile sediments, changing salinity, high turbidity and heavy scouring. The resultant low diversity invertebrate communities, that frequently include populations of ragworms, lugworms and other invertebrates in high densities, form an important food source for passage and wintering birds. The site is important in the spring and autumn migration periods for waders moving along the west coast of Europe, as well as in winter for large numbers of waterbirds including swans, geese, ducks and waders. These bird populations are regarded as internationally important.
	Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass Zostera occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent.
	Areas of saltmarsh fringe the estuary, mostly grazed with a range of vegetation communities. There are gradual and stepped transitions between bare mudflat to upper marsh and grassland. Main vegetation types are: upper saltmarsh with Festuca rubra and Juncus gerardii; middle marsh dominated by Puccinellia maritima with Glaux maritima and Triglochin maritima; dense monocultures of Spartina anglica at the edge of the mudflats-brackish pools and depressions with Phragmites australis and Bolboschoenus maritimus.
Qualifying Features	Annex I Habitats primary reason for selection: Estuaries
	 Mudflats and sandflats not covered by seawater at low tide
	 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	 Annex I Habitats qualifying feature: Sandbanks which are slightly covered by sea water all the time Reefs Annex II Species primary reason for selection: Sea lamprey Petromyzon marinus River lamprey Lampetra fluviatilis Twaite shad Alosa fallax
Conservation Objectives	 SAC interest feature 1: Estuaries The conservation objective for the "estuaries" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: the total extent of the estuary is maintained; the characteristic physical form (tidal prism/cross sectional area) and flow (tidal regime) of the estuary is maintained; the characteristic range and relative proportions of sediment sizes and sediment budget within the site is maintained; the extent, variety and spatial distribution of estuarine habitat communities5 within the site is maintained; the extent, variety, spatial distribution and community composition of hard substrate habitats and their notable communities is maintained;

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	 vi. the abundance of the notable estuarine species assemblages7 is maintained or increased; vii. the physico-chemical characteristics of the water column? support the ecological objectives described above; viii. Toxic contaminants in water column and sediment are below levels which would pose a risk to the ecological objectives described above. ix. Airborne nutrient and contaminant loads are below levels which would pose a risk to the ecological objectives described above. SAC interest feature 2: Subtidal sandbanks which are covered by sea water all the time (subtidal sandbanks) The conservation objective for the "subtidal sandbanks" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the total extent of the subtidal sandbanks within the site is maintained; ii. the extent and distribution of the individual subtidal sandbank feature within the site is maintained; iii. the community composition of the subtidal sandbank feature within the site is maintained; iii. the community composition of the subtidal sandbank feature within the site is maintained; iv. the variety and distribution of sediment types across the subtidal sandbank feature within the site is maintained; iv. the gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. SAC interest feature 3: Mudflats and sandflats not covered by seawater at low tide (mudflats and sandflats). The conservation objective for "mudflats and sandflats" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	 i. The total extent of the mudflats and sandflats feature is maintained; ii. the variety and extent of individual mudflats and sandflats communities within the site is maintained; iii. the distribution of individual mudflats and sandflats communities3 within the site is maintained; iv. the community composition of the mudflats and sandflats feature within the site is maintained; v. the topography of the intertidal flats and the morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.
	SAC interest feature 4: Atlantic salt meadow
	The conservation objective for the "Atlantic salt meadow" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	i. the total extent of Atlantic salt meadow and associated transitional vegetation communities within the site is maintained;
	ii. the extent and distribution of the individual Atlantic salt meadow and associated transitional vegetation communities within the site is maintained;
	iii. the zonation of Atlantic salt meadow vegetation communities and their associated transitions to other estuary habitats is maintained;
	 iv. the relative abundance of the typical species of the Atlantic salt meadow and associated transitional vegetation communities is maintained;

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4	Habitats Regulations Assessment: Data Proforma
Designation: SAC	 v. the abundance of the notable species of the Atlantic salt meadow and associated transitional vegetation communities is maintained. vi. the structural variation of the salt marsh sward (resulting from grazing) is maintained within limits sufficient to satisfy the requirements of conditions iv and v above and the requirements of the Ramsar and SPA features vii. the characteristic stepped morphology of the salt marshes and associated creeks, pills, drainage ditches and pans, and the estuarine processes that enable their development, is maintained. viii. Any areas of Spartina anglica salt marsh (SM6) are capable of developing naturally into other saltmarsh communities. SAC interest feature 5: Reefs The conservation objective for the "reefs" feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the total extent and distribution of Sabellaria reef is maintained; iii. the community composition of the Sabellaria reef are present; iv. the physical and ecological processes necessary to support Sabellaria reef are maintained. SAC interest feature 6: River lamprey Lampetra fluviatilis feature of the Severn Estuary SAC is to maintained.

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Designation: SAC	 The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: the migratory passage of both adult and juvenile river lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality; the size of the river lamprey population in the Severn Estuary and the rivers which drain into it, is at least maintained. the abundance of prey species forming the river lamprey's food resource within the estuary, is maintained. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above. SAC interest feature 7: The conservation objective for sea lamprey Petromyzon marinus The conservation objective for the sea lamprey Petromyzon marinus feature of the Severn Estuary SAC is to maintain the feature in a favourable condition when, subject to natural processes, each of the following conditions are met: the migratory passage of both adult and juvenile sea lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality;
	maintained.

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	vi. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.
	SAC interest feature 8: The conservation objective for twaite shad Alosa fallax
	The conservation objective for the twaite Shad Alosa fallax feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	i. the migratory passage of both adult and juvenile twaite shad through the Severn Estuary between the Bristol Channel and their spawning rivers is not obstructed or impeded by physical barriers, changes in flows or poor water quality;
	ii. the size of the twaite shad population within the Severn Estuary and the rivers draining into it is at least maintained and is at a level that is sustainable in the long term.
	iii. the abundance of prey species forming the twaite shad's food resource within the estuary, in particular at the salt wedge, is maintained.
	iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.
Vulnerabilities (includes	Negative Impacts:
existing pressures and trends)	 Other urbanisation, industrial and similar activities: High- Both
	Changes in abiotic conditions: High-Both
	 Human induced changes in hydraulic conditions: High- Both Outdoor sports and leisure activities, recreational activities: High- Inside
	 Modification of cultivation practices: High- Inside

Site Name: Wye Valley and Forest of Dean Bat Sites Location Grid Ref: SO605044 JNCC Site Code: UK0014794 Size: 142.7 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Site Description	The Wye Valley and Forest of Dean Bats SAC straddles the Wales-England border and covers an area of 142.7ha. It is underpinned by 4 SSSI in Wales and 9 in England, all of which lie entirely within the SAC. This complex of sites contains by far the greatest concentration of lesser horseshoe bat <i>Rhinolophus hipposideros</i> in the UK, totalling about 26% of the national population. It has been selected on the grounds of the exceptional breeding population, and the majority of sites within the complex are maternity roosts. The site also supports the greater horseshoe bat <i>Rhinolophus ferrumequinum</i> in the northern part of its range, with about 6% of the UK population. The site contains the main maternity roost for bats in this area, which are believed to hibernate in the many disused mines in the Forest.
Qualifying Features	Annex II Species primary reason for selection:
	Lesser horseshoe bat Rhinolophus hipposideros
	 Greater horseshoe bat Rhinolophus ferrumequinum
Conservation Objectives	With regard to the natural habitats and/or species for which the site has been designated (the Qualifying Features" listed below);
	Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.
	 Subject to natural change, to maintain or restore: The extent and distribution of qualifying natural habitats and habitats of qualifying species; The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;

Site Name: Wye Valley and Forest of Dean Bat Sites Location Grid Ref: SO605044 JNCC Site Code: UK0014794 Size: 142.7 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	 The supporting processes on which qualifying natural habitats and habitats of qualifying species rely; The populations of qualifying species; The distribution of qualifying species within the site. Qualifying Features: S1303. Rhinolophus hipposideros; Lesser horseshoe bat S1304. Rhinolophus ferrumequinum; Greater horseshoe bat
Vulnerabilities (includes existing pressures and trends)	 Negative Impacts: Other ecosystem modifications: High- Both Outdoor sports and leisure activities, recreational activities: High- Inside Human induced changes in hydraulic conditions: High- Both

Special Protection Areas

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
Site Description	The Severn Estuary is the largest coastal plain estuary in the UK with extensive mudflats and sandflats, rocky shore platforms, shingle and islands. Saltmarsh fringes the coast, backed by grazing marsh with freshwater and occasional brackish ditches. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second highest tidal range in the world (after the Bay of Fundy in Canada) at more than 12 meters. This tidal regime results in plant and animal communities typical of the extreme physical conditions of strong flows, mobile sediments, changing salinity, high turbidity and heavy scouring. The resultant low diversity invertebrate communities, that frequently include populations of ragworms, lugworms and other invertebrates in high densities, form an important food source for passage and wintering birds. The site is important in the spring and autumn migration periods for waders moving along the west coast of Europe, as well as in winter for large numbers of waterbirds including swans, geese, ducks and waders. These bird populations are regarded as internationally important. Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass <i>Zostera</i> occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent.
	are: upper saltmarsh with Festuca rubra and Juncus gerardii; middle marsh dominated by Puccinellia maritima with Glaux maritima and Triglochin maritima; dense monocultures of Spartina anglica at the edge of the mudflats-brackish pools and depressions with Phragmites australis and Bolboschoenus maritimus.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
Qualifying Features	 Article 4.1 Qualification Over winter the area regularly supports: Bewick's Swan Cygnus columbianus bewickii 3.9% of the GB population Article 4.2 Qualification Over winter the area regularly supports: Gadwall Anas strepera 0.9% of the population White-fronted Goose Anser albifrons albifrons 0.4% of the population Dunlin Calidris alpina alpina 3.3% of the population Shelduck Tadorna tadorna 1.1% of the population Redshank Tringa totanus 1.3% of the population Article 4.2 Qualification: Internationally Important Assemblage of Birds Over winter the area regularly supports: 84317 waterfowl
Conservation Objectives	SPA Interest feature 1: Internationally important population of regularly occurring Annex 1 species: Bewick's swan The conservation objective is to maintain the Bewick's swan population and its supporting habitats in favourable condition, as defined below.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	 The interest feature Bewick's swan will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: the 5 year peak mean population size for the Bewick's swan population is no less than 289 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); the extent of saltmarsh at the Dumbles is maintained; the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained; the extent of vegetation with an effective field size of >6 ha and with unrestricted bird sightlines > 500m at feeding, roosting and refuge sites are maintained; greater than 25% cover of suitable soft leaved herbs and grasses in winter season throughout the transitional saltmarsh at the Dumbles is maintained; aggregations of Bewick's swan at feeding, roosting and refuge sites are not subject to significant disturbance. SPA Interest feature 2: Internationally important population of regularly occurring migratory species: wintering European white-fronted goose The conservation objective is to maintain the European white-fronted goose population and its supporting habitats in favourable condition, as defined below. The interest feature European white-fronted goose will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: the 5 year peak mean population size for the wintering European white fronted goose population is no less than 3,002 individuals (ie the 5 year peak mean between 1988/9-

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022	Habitats Regulations Assessment: Data Proforma
Size: 24662.98 Designation: SPA	
	 ii. 1992/3); iii. the extent of saltmarsh at the Dumbles is maintained; iv. the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained; v. greater than 25% cover of suitable soft-leaved herbs and grasses is maintained during the winter on saltmarsh areas; vi. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; vii. aggregations of European white-fronted goose at feeding or roosting sites are not subject to significant disturbance.
	SPA Interest feature 3: Internationally important population of regularly occurring migratory species: wintering dunlin
	The conservation objective is to maintain the dunlin population and its supporting habitats in favourable condition , as defined below.
	The interest feature dunlin will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	 i. the 5 year peak mean population size for the wintering dunlin population is no less than 41,683 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of saltmarsh and associated strandlines is maintained; iii. the extent of intertidal mudflats and sandflats is maintained; iv. the extent of hard substrate habitats is maintained; v. the extent of vegetation with a sward height of <10cm is maintained throughout the saltmarsh;

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W	Habitats Regulations Assessment: Data Proforma
JNCC Site Code: UK9015022 Size: 24662.98	
Designation: SPA	
	vi. the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained;
	 the abundance and macro-distribution of suitable invertebrates in hard substrate habitats is maintained;
	viii. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained;
	ix. aggregations of dunlin at feeding or roosting sites are not subject to significant disturbance.
	SPA Interest feature 4: Internationally important population of regularly occurring migratory species: wintering redshank
	The conservation objective is to maintain the redshank population and its supporting habitats in favourable condition , as defined below.
	The interest feature redshank will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	 the 5 year peak mean population size for the wintering redshank population is no less than 2,013 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); the extent of saltmarsh and associated strandlines is maintained;
	iii. the extent of intertidal mudflats and sandflats is maintained;
	iv. the extent of hard substrate habitats is maintained;
	v. the extent of vegetation with a sward height of <10cm throughout the saltmarsh is maintained;
	vi. the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained;
	vii. the abundance and macro-distribution of suitable invertebrates in hard substrate habitats is maintained;

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	 viii. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; ix. aggregations of redshank at feeding or roosting sites are not subject to significant disturbance.
	SPA Interest feature 5: Internationally important population of regularly occurring migratory species: wintering shelduck
	The conservation objective is to maintain the shelduck population and its supporting habitats in favourable condition , as defined below.
	The interest feature shelduck will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	 the 5 year peak mean population size for the wintering shelduck population is no less than 2,892 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); the extent of saltmarsh is maintained;
	iii. the extent of intertidal mudflats and sandflats is maintained;
	iv. the extent of hard substrate habitats is maintained;
	 the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained;
	vi. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained;
	vii. aggregations of shelduck at feeding or roosting sites are not subject to significant disturbance.
	SPA interest feature 6: Internationally important population of regularly occurring migratory species: wintering gadwall

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	The conservation objective is to maintain the gadwall population and its supporting habitats in favourable condition, as defined below: The interest feature gadwall will be considered to be in favourable condition when, subject to natural
	 processes, each of the following conditions are met: i. the 5 year peak mean population size for the wintering gadwall population is no less than 330 (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of intertidal mudflats and sandflats (Appendix 8) is maintained; iii. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; iv. aggregations of gadwall at feeding or roosting sites are not subject to significant disturbance.
	SPA Interest feature 7: Internationally important assemblage of waterfowl
	The conservation objective is to maintain the waterfowl assemblage and its supporting habitats in favourable condition , as defined below.
	The interest feature waterfowl assemblage will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	 i. the 5 year peak mean population size for the waterfowl assemblage is no less than 68,026 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of saltmarsh and their associated strandlines is maintained; iii. the extent of intertidal mudflats and sandflats is maintained; iv. the extent of hard substrate habitats is maintained; v. extent of vegetation of <10cm throughout the saltmarsh is maintained;

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	 vi. the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained; vii. the abundance and macro-distribution of suitable invertebrates in hard substrate habitats is maintained; viii. greater than 25% cover of suitable soft leaved herbs and grasses during the winter on saltmarsh areas is maintained; ix. unrestricted bird sightlines of >500m at feeding and roosting sites are maintained; x. waterfowl aggregations at feeding or roosting sites are not subject to significant disturbance.
Vulnerabilities (includes existing pressures and trends)	 Negative Impacts: Outdoor sports and leisure activities, recreational activities: High-Inside Other urbanisation, industrial and similar activities: High- Both Modification of cultivation practices: High-Inside Changes in abiotic conditions: High- Both Human induced changes in hydraulic conditions: High- Both

Site Name: Walmore Common Location (Lat & Long): 51 49 58 N 02 22 14 W JNCC Site Code: UK9007051 Size: 52.85 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
Site Description	Walmore Common is located in Gloucestershire, in the west of England, about 10 km south-west of Gloucester. The site is a wetland overlying peat providing a variety of habitats including improved neutral grassland, unimproved marshy grassland and open water ditches. The area is subject to regular winter flooding and this creates suitable conditions for regular wintering by an important number of Bewick's Swan Cygnus columbianus bewickii. The highest bird numbers are seen during the harshest winters, when Walmore Common provides an essential feeding and roosting area.
Qualifying Features	Article 4.1 Qualification Over winter the area regularly supports: Bewick's Swan Cygnus columbianus bewickii 1.4% of the GB population
Conservation Objectives	With regard to the natural habitats and/or species for which the site has been designated (the Qualifying Features" listed below); Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features. Subject to natural change, to maintain or restore:
	 The extent and distribution of qualifying natural habitats and habitats of qualifying species; The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species; The supporting processes on which qualifying natural habitats and habitats of qualifying species rely; The populations of qualifying species;

Site Name: Walmore Common Location (Lat & Long): 51 49 58 N 02 22 14 W JNCC Site Code: UK9007051 Size: 52.85 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
	 The distribution of qualifying species within the site. Qualifying Features: A037 Cygnus columbianus bewickii; Bewick[®]s swan (Non-breeding)
Vulnerabilities (includes existing pressures and trends)	 Negative Impacts: Human induced changes in hydraulic conditions: High- Both Changes in biotic conditions: High- Both Outdoor sports and leisure activities, recreational activities: High- Inside Modification of cultivation practices: High- Inside

Ramsar Sites

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
Site Description	The Severn Estuary is the largest coastal plain estuary in the UK with extensive mudflats and sandflats, rocky shore platforms, shingle and islands. Saltmarsh fringes the coast, backed by grazing marsh with freshwater and occasional brackish ditches. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second highest tidal range in the world (after the Bay of Fundy in Canada) at more than 12 meters. This tidal regime results in plant and animal communities typical of the extreme physical conditions of strong flows, mobile sediments, changing salinity, high turbidity and heavy scouring. The resultant low diversity invertebrate communities, that frequently include populations of ragworms, lugworms and other invertebrates in high densities, form an important food source for passage and wintering birds. The site is important in the spring and autumn migration periods for waders moving along the west coast of Europe, as well as in winter for large numbers of waterbirds including swans, geese, ducks and waders. These bird populations are regarded as internationally important.
	Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass Zostera occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent.
	Areas of saltmarsh fringe the estuary, mostly grazed with a range of vegetation communities. There are gradual and stepped transitions between bare mudflat to upper marsh and grassland. Main vegetation types are: upper saltmarsh with Festuca rubra and Juncus gerardii; middle marsh dominated by Puccinellia maritima with Glaux maritima and Triglochin maritima; dense monocultures of Spartina anglica at the edge of the mudflats-brackish pools and depressions with Phragmites australis and Bolboschoenus maritimus.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma	
Qualifying Fastures	Ramsar criterion 1	
Qualifying Features	 Immense tidal range (second-largest in world) creating diversity of physical environment and biological communities. 	
	Ramsar criterion 3	
	Due to unusual estuarine communities, reduced diversity and high productivity.	
	Ramsar criterion 4	
	This site is important for the run of migratory fish between sea and river via estuary. Species include Salma Salmo salar, sea trout S. trutta, sea lamprey Petromyzon marinus, river lamprey Lampetra fluviatilis, allis sha Alosa alosa, twaite shad A. fallax, and eel Anguilla anguilla. It is also of particular importance for migrate birds during spring and autumn.	
	Ramsar criterion 5	
	 Qualifies as it supports an assemblage of international importance Species with peak counts in winter: 	
	70919 waterfowl	
	Ramsar criterion 6	
	 Qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. 	
	Species with peak counts in winter - at designation:	
	Tundra/Bewick's swan Greater /European	
	white-fronted goose	

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	 Dunlin Common redshank Common shelduck Gadwall Populations identified subsequent to designation: Ringed plover (spring/autumn) Eurasian teal (winter) Northern pintail (winter) Lesser black-backed gull (breeding) Ramsar criterion 8 The fish of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded. Salmon Salmo salar, sea trout S. trutta, sea lamprey Petromyzon marinus, river lamperty Lampetra fluviatilis, allis shad Alosa alosa, twaite shad A. fallax, and eel Anguilla Anguilla use the Severn Estuary as a key migration route to their spawning grounds in the many tributaries that flow into the estuary. The site is important as a feeding and nursery ground for many fish species particularly allis shad Alosa alosa and twaite shad A. fallax which feed on mysid shrimps in the salt wedge.
Conservation Objectives	Ramsar interest feature 1: Estuaries The conservation objective for the "estuaries" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SAC "estuaries" feature", in so far as these objectives are applicable to the area designated as Ramsar Site.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98	Habitats Regulations Assessment: Data Proforma	
Designation: Ramsar	Ramsar interest feature 2: Assemblage of migratory fish species	
	 The conservation objective for the "assemblage of migratory fish species" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the migratory passage of both adults and juveniles of the assemblage of migratory fish species through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality; 	
	 ii. the size of the populations of the assemblage species in the Severn Estuary and the rivers which drain into it, is at least maintained and is at a level that is sustainable in the long term; iii. the abundance of prey species forming the principle food resources for the assemblage species within the estuary, is maintained. iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above. 	
	Ramsar interest feature 3: Internationally important populations of waterfowl : Bewick's swan	
	The conservation objective for the "Bewick's swan" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "Bewick's swan" feature.	
	Ramsar interest feature 4: Internationally important populations of waterfowl: European white-fronted goose	

Site Name: Severn Estuary Location (Lat & Long):	Habitats Regulations Assessment: Data Proforma	
51 13 29 N		
03 02 57 W		
JNCC Site Code: UK11081 Size: 24662.98		
Designation: Ramsar		
	The conservation objective for the "European white-fronted goose" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering European white-fronted goose" feature.	
	Ramsar interest feature 5: Internationally important populations of waterfowl: dunlin	
	The conservation objective for the "dunlin" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering dunlin" feature.	
	Ramsar interest feature 6: Internationally important populations of waterfowl: redshank	
	The conservation objective for the "redshank" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering redshank" feature.	
	Ramsar interest feature 7: Internationally important populations of waterfowl: shelduck	
	The conservation objective for the "shelduck" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering shelduck" feature.	
	Ramsar interest feature 8: Internationally important populations of waterfowl: gadwall	
	The conservation objective for the "gadwall" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering gadwall" feature.	

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	The conservation objective for the "internationally important assemblage of waterfowl" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "internationally important assemblage of waterfowl" feature - with special reference to the individual species listed and their population figures.
 existing pressures and trends) caused directly through change of laprocesses (e.g. coastal defences) as a or the disposal of spoils. Activities or dehabitats are likely to reduce the availe sandflats and the saltmarsh are highly Information provided by NE and CCW under threat, however when combined Noise or visual disturbance - Overwint This can displace the birds from their from the salt of the	 Physical loss of supporting habitats through removal - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of feeding and roosting habitats. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability. Noise or visual disturbance - Overwintering birds are disturbed by sudden movements and sudden noises. This can displace the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through and in response they either a) decrease their energy intake at their present (disturbed) feeding site through and in response they either a) decrease their energy intake at their present (disturbed) feeding site through and in response they either a) decrease their energy intake at their present (disturbed) feeding site through and in response they either a) decrease their energy intake at their present (disturbed) feeding site through and in the present of the function.
	displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance to the internationally important migratory species and the waterfowl assemblage from both the landward and seaward side of the site which has increased in recent years, due to the estuary becoming more populated and the development of all weather recreational pursuits. Bewick's swans are mainly affected by disturbance from the landward side

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	 and any increase in disturbance should be avoided. All supporting habitats are currently highly vulnerable to noise and visual disturbance. Contamination by synthetic and/or non-synthetic toxic compounds - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. At the moment there is no evidence to show that this is the case, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds. Damage by abrasion or selective extraction - Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are considered to be moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction.
	Changes in nutrient and/or organic loading - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma	
	Biological disturbance through the selective extraction of species - Wildfowling is carried out all around the estuary. NE and CCW have not established that it has a detrimental effect on the overall bird populations but state that wildfowling needs to be exercised in a managed and sustainable manner preferably by a British Association of Shooting and Conservation (BASC) affiliated association, applying the BASC wildfowlers code of conduct. Bait digging is also carried out around the estuary. If too large an area is regularly dug over, it can change the availability of prey in the sediment as the area needs a period of recovery and recolonisation. The removal of strandline vegetation by beach cleaning removes an important habitat for invertebrates, as well as many of the invertebrates themselves, reducing the quantity and variety of prey available to the birds. Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.	

Appendix II: Plans and Programmes Review

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
Forest of Dean Core Strategy Adopted (Feb 2012)	 5,162 new dwellings About 75% of all new housing and 80% of new employment will be in the four towns: 1900 new dwellings and 30ha of employment land at Lydney, 1050 dwellings and 26ha of employment at Cinderford, 650 dwellings and 6.8ha at Coleford and 350 dwellings and 5ha at Newent. 	 Proposed housing, employment and infrastructure development has the potential to: increase disturbance (recreational, noise, light); increase atmospheric pollution (diffuse); increase pressure on sewerage capacity; increase water abstraction; result in the loss of supporting habitat and modify drainage. The HRA Screening (SA Report Feb 2012 - Appendix 10) concluded that the Core Strategy will not result in any significant negative impacts on identified sites. The need for HRA at later stages of the planning processes was identified, when development proposals are more detailed. The Plan has the potential to result in in-combination effects with the Gloucester City Plan: atmospheric pollution through increased traffic, which could reduce air quality; increased levels of disturbance - recreational activity, noise and light pollution; and increased levels of abstraction; surface water run-off and sewerage discharge, which could reduce water quality and levels.
JCS Gloucester, Cheltenham and Tewekesbury (November 2014)	 30,500 to 38,00 dwellings The housing requirement for each local authority will be as follows: Gloucester: 11,300 new homes Cheltenham: 9,100 new homes Teweksbury: 10,100 new homes 28,000 jobs with 64 hectares of employment land 	 Proposed housing, employment and infrastructure development has the potential to: increase disturbance (recreational, noise, light); increase atmospheric pollution (diffuse); increase pressure on sewerage capacity; increase water abstraction; result in the loss of supporting habitat and modify drainage. The Plan has the potential to result in in-combination effects with the Gloucester City Plan: atmospheric pollution through increased traffic, which could reduce air quality

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
		 increased levels of disturbance - recreational activity, noise and light pollution, potential for increased disturbance to mobile species; and increased levels of abstraction; surface water run-off and sewerage discharge, which could reduce water quality and levels.
Tewkesbury Town Centre Masterplan Strategic Framework Document (July 2012)	 Regeneration of key sites around Tewkesbury town centre Decrease congestion 	 The Plan has the potential to result in in-combination effects with the Gloucester City Plan: atmospheric pollution through increased traffic, which could reduce air quality increased levels of disturbance - recreational activity, noise and light pollution, potential for increased disturbance to mobile species; and increased levels of abstraction; surface water run-off and sewerage discharge, which could reduce water quality and levels.
Stroud Local Plan November 2015	 3615 new dwellings 6,600-12,500 jobs with new employment land allocations and support for further town centre and retail floorspace to meet needs up to 2031 Strategic sites: Hunts Grove Extension 750 North East Cam 450 Sharpness 300 Stroud Valleys 450 West of Stonehouse 1350 	 The HRA including an appropriate assessment identified three European sites for further investigation: Severn estuary SAC, SPA & Ramsar – air quality, recreational pressure water supply and wastewater treatment. Rodborough Common SAC – air quality and recreational pressure. Cotswold Beechwoods SAC – air quality and recreational pressure. With mitigation suggested in the HRA it was concluded that there would be an appropriate policy mechanism in place to ensure that adverse effects on the integrity of the three sites mentioned above could be avoided. The Plan has the potential to result in in-combination effects with the Gloucester City Plan: atmospheric pollution through increased traffic, which could reduce air quality; increased levels of disturbance - recreational activity, noise and light pollution; and

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
		 increased levels of abstraction; surface water run-off and sewerage discharge, which could reduce water quality and levels.
Gloucestershire LTP3 2015 - 2031	Major road and transport schemes/ interchanges	 Proposed transport infrastructure could increase disturbance (recreational, noise, light); increase atmospheric pollution (diffuse); increase transfer of pollutants through surface water run-off; result in the loss of supporting habitat and modify drainage. Potential for in-combination effects will be considered through the HRA for the Gloucester City Plan.
Gloucestershire Minerals Core Strategy Preferred Options (February 2015)	 7 strategic objectives make up the preferred option and are fall within themes. The MCS identifies the following resource areas, which are of relevance: The Cotswolds - provides limestone used as a crushed rock and building stone and clay for brick-making; The Severn Vale Corridor - also encompasses sand & gravel for aggregate use; and clay for engineering projects. 	 The MCS identifies the potential outward supply opportunity of crushed rock into Wales and the West Midlands. This could have the potential to have in-combination effects through increased transport and associated impacts/ pollution incidents. The MCS also identifies the provision potential of the Severn Vale Corridor resource area to provide potential new site allocations for sand and gravel working. The HRA for the Preferred Options acknowledged that there are uncertainties surrounding the minerals provision in Gloucestershire. The Plan has the potential to result in in-combination effects with the Gloucester City Plan: atmospheric pollution through increased traffic, which could reduce air quality; increased levels of disturbance - noise and light pollution; and increased levels of abstraction; surface water run-off and sewerage discharge, which could reduce water quality and levels.
Gloucestershire Waste Core Strategy Adopted (Nov 2012)	 The Waste Core Strategy (WCS) provides the framework for sustainable waste management in the County. The CS states that Planning permission will be granted for strategic residual recovery 	 The HRA concluded that the WCS and associated policies will have no likely significant effects alone or in-combination on any European designated sites for nature conservation. The Plan has the potential to result in in-combination effects with the Gloucester City Plan:

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
	 facilities (>50,000 tonnes/year) at the following sites: 1. Wingmoor Farm East 2. The Park 3. Wingmoor Farm West 4. Javelin Park 5. Land at Moreton Valence 	 atmospheric pollution through increased traffic, which could reduce air quality; increased levels of disturbance - noise and light pollution; and increased levels of abstraction; surface water run-off and sewerage discharge, which could reduce water quality and levels.
Shoreline Management Plans	 Proposals for coastal defence management 	 Mudflats, sandflats and sandbanks not currently covered by seawater at low tide may experience changes arising from the SMP which would then alter the baseline evidence. Potential impacts on Severn Estuary SAC/SPA/Ramsar. Potential for in-combination effects will be considered through the HRA for the Gloucester City Plan.
Severn Estuary Flood Risk Management Strategy (EA)	 A 100 year plan of investment for flood defences by the Environment Agency and Local Authorities The prioritisation of other flood risk management measures such as providing advice to utility companies to protect critical infrastructure, development control advice and flood warning investment Creation of new inter-tidal wildlife habitats to compensate for loss of wildlife habitats through rising sea levels. 	 Mudflats, sandflats and sandbanks not currently covered by seawater at low tide may experience changes arising from the various plans which would then alter the baseline evidence. Potential for in-combination effects will be considered through the HRA for the Gloucester City Plan.
Severn Estuary River Basin Management Plan	 Proposals relating to the Severn Estuary and its related pressures. 	 The potential for this plan to improve the habitat quality for this European site will have a bearing on the future potential impact of policies and the baseline against which it is measured. A Habitats Regulations Assessment of this plan has been carried out to consider whether it is likely to have a significant effect on any Natura

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
		 2000 sites. The assessment was undertaken by the Environment Agency, in consultation with Natural England and the Countryside Council for Wales. The assessment concluded that the River Basin Management Plan is unlikely to have any significant negative effects on any Natura 2000 sites and that Plan itself does not require further assessment under the Habitats Regulations. This conclusion is reliant on the fact that before any measures in the Plan are implemented they must be subject to the requirements of the Habitats Regulations. Any plans, project or permissions required to implement the measures must undergo an appropriate assessment if they are likely to have a significant effect.
Severn Trent Water Resource Management Plan Final Version (2014)	• The WRMP sets out Severn Trent Water's strategy for ensuring the security of water supplies between 2010 and 2035.	• The HRA of the WRMP identified that based on the current level of detail available for the final WRMP schemes; it is unlikely that there will be any significant impact on Natura 2000 or Ramsar sites. However, all schemes that were identified within the HRA screening process as having the potential to have a significant effect will be subject to further screening at project design to determine whether, based on the additional design information, the scheme could have a likely significant effect. Any scheme that could have an adverse effect on the integrity of a European or International site will not be in accordance with the objectives of our WRMP and will not be taken forward.
Development associated with the decommissioning of Berkeley Power Station	• The station is now proceeding through a measured and calculated programme of work to decommission the site.	 There may be impacts on air quality and nutrient enrichment The demolition of structures may create dust which could have a smothering effect on sites The Plan has the potential to result in in-combination effects with the Gloucester City Plan: atmospheric pollution through increased traffic, which could reduce air quality; increased levels of disturbance - noise and light pollution; and

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
		 increased levels of abstraction; surface water run-off and sewerage discharge, which could reduce water quality and levels.
Development proposals for Oldbury Power Station	 2 nuclear reactors with a combined expected output of approximately 2700MW. Up to four cooling towers of between 70m and 200m in height Interim waste storage facilities Electricity transmission infrastructure Access roads and highways improvements and a possible park and ride facility A marine off-loading facility (MOF) and other such construction transport options Implementation of a flood defence strategy for the site 	 There is the potential for impacts on the Severn SAC/SPA/Ramsar due to the proposal for cooling water infrastructure - intake ('make-up') and discharge ('purge') pipework and structures as well as through construction and operation of a marine offloading facility which could be constructed within the designated sites. The cooling water system required for the stations would need to abstract water from the River Severn to provide top up supplies. It is likely that the cooling water would be taken from the tidal lagoon currently operated by the present Magnox station which is within the Severn Estuary SPA, SCI, Ramsar site. Abstraction would require new pipework and construction of intake and discharge structures within the designated areas. This could mean a temporary loss of habitat and disturbance of tidal flows around the construction works which in turn could impact on invertebrate communities. In the very dynamic estuarine environment such impacts would be likely to be short term and the habitats and ecology would recover following construction. Whilst the discharge of cooling water in the intertidal area has the potential to cause an adverse effect, the thermal discharge from a tower cooled system would be much less than the existing Oldbury Power Station's discharge. The construction of the new power station would require the transport of significant quantities of bulk materials such as fill material, aggregates, steel and concrete. Additionally, several abnormally large components or modules would need to be delivered by sea. Delivery of the bulk materials and the abnormal loads could mean that a marine offloading facility may be required. Construction and ultimate decommissioning would entail a number of potentially noisy and visually intrusive activities which, although not necessarily within the designated areas, may be in close proximity. They could therefore

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
		 result in some displacement of wintering bird populations during the construction period. The Severn Estuary supports a diverse range of fish and is considered a major fish migration route. Water abstraction could potentially cause an adverse effect (and even some mortality) due to fish impingement on cooling water screens, or entrainment in the cooling water intake (e.g. lamprey transformers). The thermal discharge could also affect fish populations in the vicinity of the discharge. This could also have effects on the migratory fish species which pass through the Severn Estuary.
		 The station development area, the need for any new construction roads and modifications to the transmission system could result in the loss of feeding and roosting area for birds on land adjacent to the Severn Estuary SAC, SPA, Ramsar and SSSI areas. Even though these areas lie outside the internationally designated area, this has some potential for affecting bird populations using the estuary. If not properly managed, damage to intertidal habitats could also
		 affect over wintering bird populations which feed in the shallows and the sandbanks due to loss of food sources. Potential for in-combination effects will be considered through the HRA for the Gloucester City Plan.

Appendix III

Appendix III: HRA Screening of Policy Options and Site Allocations

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
Topic Paper: Historic Environment		
E1- Historic Environment Development Management	The policy seeks to conserve and protect designated and non-designated heritage assets, including archaeology, in a manner appropriate to its significance. Though the policy sets criteria for development, it does not propose development itself and is unlikely to lead to any significant effects.	No
E2- Recording and advancing understanding of heritage assets	The policy states that if a development will result in the damage or loss of a heritage asset information and significance of that asset will have to be understood and fully recorded before development occurs. Mitigation measures are outlined and will be dependent on the nature of the impact. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
E3- Buildings of local importance	The policy seeks to provide protection for heritage assets of local importance identified on the Local List. The policy does not proposed development itself and is unlikely to lead to any significant effects.	No
E4- Shopfronts, Shutters and Signs	The policy identifies a presumption in favour of retaining good quality traditional shopfronts where they make a positive contribution to the character of the area. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
Topic Paper: Health & Wellbeing		
Policy D1- Active Design	The policy seeks design that will support ease of movement for pedestrians and cyclists. The policy can contribute to improved air quality by supporting a modal shift which can indirectly support habitats in the long term. The policy is unlikely to lead to any significant effects.	No
Policy D2-Outdoor Space	The policy seeks to retain and provide outdoor amenity and garden space at a level that reflects the character of the area and scale of development. The policy can contribute to improved green infrastructure networks and garden space has the potential to support biodiversity. The policy is unlikely to lead to any significant effects.	No
Policy D3-Accessibility	The policy seeks and sets the principles for high standards of accessibility and inclusive design. The policy is unlikely to lead to any significant effects.	No
Policy D4-Allotments	The policy seeks to provide allotment space at a standard of 0.2ha per 1000 people. The policy can contribute to increased biodiversity, and support local economies which support a reduction in food miles. The policy is unlikely to lead to any significant effects.	No
Policy D5-Open Space	The policy seeks to provide open space in accordance with the Council's current Open Space Standards, which can contribute to enhancing the Green Infrastructure network indirectly supporting species and habitats. The policy is unlikely to lead to any significant effects.	No

Policy D6- Provision of Playing Pitches in New Development	The policy seeks to provide new playing pitches in accordance with the Playing Pitch Strategy 2015. This could contribute to enhancing the Green Infrastructure network indirectly supporting	No
	species and habitats. The policy is unlikely to lead to any significant effects.	
Policy D7- Protection of Open Space and Playing Fields	The policy seeks to protect existing and proposed open space against any potential loss. The policy is unlikely to lead to any significant effects.	No
Policy F1-Landscape	The policy seeks landscape schemes in development proposals that incorporate planting details and the retention of natural features where possible. This will contribute to reducing the potential effects of development on habitat fragmentation. The policy is unlikely to lead to any significant effects.	No
Policy D8-Community Facilities	The policy seeks to protect existing community facilities and minimise their loss. The policy is unlikely to lead to any significant effects.	No
Policy G8-Pubic Art	This policy seeks the provision of or contribution to public art. The policy is unlikely to lead to any significant effects.	No
Policy D9- Mobile Catering Units	The policy sets the criteria for the use of mobile catering units. The policy does not propose development itself, but seeks to mitigate potential impacts such as disturbance, odour, traffic and waste. The policy is unlikely to lead to any significant effects.	No
Policy D10-Air Quality	The policy seeks to protect air quality and requires air quality assessment where appropriate. The policy can contribute to mitigating potential impacts on air quality as a result of new development, which can indirectly support species and habitats. The policy is unlikely to lead to any significant effects.	No
Policy D11-Noise	The policy seeks to restrict development which is likely to generate unacceptable noise levels close to noise sensitive zones. Mitigation of noise impacts through design, layout and insulation will be expected where appropriate. This can contribute to mitigating potential impacts of development, such as disturbance, which can indirectly support habitats and species. The policy is unlikely to lead to any significant effects.	No
Policy D12-Pollution	The policy seeks to restrict the effects of pollution of water, air or soil, or pollution through noise, dust vibration, light, heat or radiation on the environment and sensitive development. The mitigation provided should indirectly support habitats and species in the long term and is unlikely to lead to any significant effects.	No
Policy D13- Contamination	The policy seeks contaminated land (and waterbodies) reports where appropriate and restricts development which could negatively affect the quality of groundwater. This can indirectly support habitats and species in the long term. The policy is unlikely to lead to any significant effects.	No
Policy D14-Cordon Sanitaire	The policy states that development adversely affected by smell from Netheridge Sewage Works will not be permitted. The policy is unlikely to lead to any significant effects.	No
Policy D15-Suicide Prevention	The policy states that buildings with 4 or more storeys management and/or mitigation measures should be taken to help prevent suicide. The policy is unlikely to lead to any significant effects.	No

Topic Paper: Flooding and Water	Management	
F7- Flooding	The policy seeks to restrict development that would be subject to flood risk or increase flood risk elsewhere. The policy identifies appropriate drainage standards and betterment rates for surface water run-off. The policy is unlikely to lead to any significant effects.	No
Topic Paper: Design		
G1-Living Conditions	The policy seeks to protect the amenity of existing and future residents and is unlikely to lead to any significant effects.	No
G2-Car Parking	The policy encourages car parking within residential development to be arranged within a dwellings curtilage. The policy is unlikely to lead to any significant effects.	No
G3- Materials and Finishes	The policy states that developments should be finished at a high quality with locally distinctive materials that positively responds to the character and appearance of Gloucester. The policyis unlikely to lead to any significant effects.	No
G4- Landscape	The policy seeks landscape schemes in development proposals that incorporate planting details and the retention of natural features where possible. This will contribute to reducing the potential effects of development on habitat fragmentation. The policy is unlikely to lead to any significant effects.	No
G5- Bin Storage	The policy sets the criteria for bin storage areas in new development, and is unlikely to lead to any significant effects.	No
G6- Cycle Parking & Storage	The policy expects development to provide suitable cycle storage and cycle parking and is unlikely to lead to any significant effects.	No
G7- Public Realm	The policy seeks successful integration of new development with the surrounding public realm. The policy is unlikely to lead to any significant effects.	No
G8- Public Art	This policy seeks the provision of or contribution to public art. The policy is unlikely to lead to any significant effects.	No
G9- Community Safety	The policy identifies community safety as a fundamental principle of development and is unlikely to lead to any significant effects.	No
G10- Delivering Strategies	The policy seeks to ensure that new development supports the objectives and delivery of the Regeneration Strategy, Lighting Strategy and Public Realm Strategy. The policy is unlikely to lead to any significant effects.	No
G11- Development Alongside Main Routes	The policy seeks to improve the quality of development alongside main routes into the city centre and is unlikely to lead to any significant effects.	No
G12- Design Standards	The policy seeks high quality design standards in new development. It is unlikely to lead to any significant effects.	No
G13- Large-scale 20 th Century Buildings	The policy encourages the redevelopment of negative large-scale 20 th century buildings and landscapes and is unlikely to lead to any significant effects.	No

G14- Transport Arrival Nodes	The policy supports the retention and redevelopment of the city's main transport arrival nodes	No
G14- Indispon Anival Nodes	(bus, train, multistory car parks). Redevelopment of existing transport nodes should not result in	NO
	negative direct or indirect impacts on European Designated Sites in the area	
G15- Gulls	The policy seeks viable steps to prevent gulls roosting, nesting and causing damage. The policy is	No
615- 6013	unlikely to lead to any significant effects on European Designated sites.	NO
G16- Design & Climate Change	The policy seeks a high quality of design and a high level of environmental awareness which	No
Gib- Design & Climate Change	contributes positively to climate change mitigation and adaptation, which can support species	NO
	and habitats in the long term. The policy is unlikely to lead to any significant effects.	
G17- Views of the Cathedral	The policy seeks to protect key views of the Cathedral and other historic places of worship	No
GIV- views of the Califeara	identified in the Heights of Buildings SPD. The policy is unlikely to lead to any significant effects.	NO
Topic Paper: Climate Change		
F8- Potential of River and Canal	The policy supports development which exploits the renewable energy potential of the river or	Yes
ro-roleniidi of kivel did Calidi	canal, and resists development which discourages this potential. It is considered that renewable	163
	energy development associated with the River Severn has the potential to impact upon the River	
	Severn Ramsar/SAC/SPA through disturbance, changes to water levels and / or water quality.	
F9- Efficiency Measures	The policy seeks extra insulation and efficiency measures in major applications where no form of	No
F7- Elliciency Medsores	renewable/low carbon generation is practical. The policy is unlikely to lead to any significant	NO
	effects.	
F10 – Mitigation through planting	The policy identifies measures which are encouraged in new development to contribute to	No
and SUDs	climate change mitigation, including: trees, green roofs, green spaces and Sustainable Drainage	140
	Systems. This will indirectly support species and habitats in the long term and is unlikely to lead to	
	any significant effects.	
Topic Paper: Natural Environment		
F1- Landscape	The policy seeks to minimize the impact of development on vulnerable and protected landscapes	No
	and requires a Landscape Visual Impact Analysis for large development sites or in sensitive	
	landscape areas. The policy is unlikely to lead to any significant effects.	
F2- Biodiversity	The policy identifies that small scale erosion of biodiversity will be resisted and small scale	No
	development applications will be judged as part of a wider system and will need to show how	_
	biodiversity interest will be taken account of. This will contribute to reducing the potential effects of	
	habitat fragmentation in new development supporting species and habitats in the long term. The	
	policy is unlikely to lead to any significant effects.	
F3-Nature Improvement Area	The policy does not restrict development within the NIA over and above floodplain requirements,	No
(NIA)	however any biodiversity mitigation/compensation will be expected to contribute to the overall	
	NIA target species and habitats. The policy is unlikely to lead to any significant effects on	
	designated European sites.	

F4- Trees and Hedgerows	The policy seeks to protect existing natural features in new development. This can contribute to mitigating the potential effects of development on biodiversity, including direct loss of supporting	No
	habitats. The policy is unlikely to lead to any significant effects.	
F5- Green Infrastructure (GI)	The policy supports development that contributes to the connectivity of Green Infrastructure in accordance with the GCC GI Strategy and GCT JCS GI Strategy. Strategic connectivity of open spaces can support species, species movement and habitats in the long term. The policy is unlikely to lead to any significant effects.	No
F6- Geodiversity	The policy seeks to protect geodiversity and is unlikely to lead to any significant effects.	No
Topic Paper: Retail and City/Town		
C1- Maintaining the vitality and viability of city, district and local centres	The policy identifies a hierarchy of town centres in which to deliver the majority of employment, retail and leisure developments, unless sequential testing demonstrates a need outside of these areas. Prioritising retail and employment development in existing local centres can indirectly support European sites by concentrating development in appropriate locations away from designated European sites and in areas which are well connected to modes of sustainable transport. The policy is unlikely to lead to any significant effects.	No
C2- Proposals located within the City Centre boundary, Primary Shopping Area, primary frontages and secondary frontages.	The policy seeks to protect and promote appropriate central area uses. It is unlikely to lead to any significant effects.	Νο
C3- Visitor Attractions	The policy seeks to direct new visitor attractions to within the city centre boundary where possible, and ensure that visitor attractions are well connected to public and sustainable modes of transport. Prioritising visitor related development in the City Centre can indirectly support European sites by concentrating development in an appropriate location away from designated European sites and in an area which is well connected to modes of sustainable transport. The policy is unlikely to lead to any significant effects.	No
C4- Overnight Accommodation	The policy seeks to direct new overnight accommodation development to within the city centre boundary. Prioritising this development in the City Centre can indirectly support European sites by concentrating development in an appropriate location away from designated European sites and in an area which is well connected to modes of sustainable transport. The policy is unlikely to lead to any significant effects.	No
C5- Major Cultural Venue	The policy supports proposals for major cultural and arts venues in a suitable location within the City Centre boundary. Prioritising this development in the City Centre can indirectly support European sites by concentrating development in an appropriate location away from designated European sites and in an area which is well connected to modes of sustainable transport. The policy is unlikely to lead to any significant effects.	No

C6- Evening and Night-time Uses	The policy seeks to enhance evening and night-time economies within the City Centre. The policy	No
	does not propose development itself and is unlikely to lead to any significant negative effects.	
Topic Paper: Sustainable Transport		
G6- Cycle Parking and Storage	The policy seeks appropriate car parking and cycle provisions in accordance with Gloucestershire Manual for Streets 4 th edition 2016. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
H1: Sustainable Transport	The policy supports and encourages improvements to the sustainable transport network including access to open spaces and natural assets such as the River and Canal, which can contribute to improving air quality and thus indirectly support species and habitats in the long term. The policy is unlikely to lead to any significant effects.	No
Topic Paper: Infrastructure		
11- Infrastructure	The policy seeks to deliver infrastructure improvements alongside new development in accordance with the priorities identified within the Joint Core Strategy, Local Transport Plan and Infrastructure Delivery Plan. The policy does not identify precise locations for infrastructure improvements and does not propose development itself. Unlikely to lead to any significant effects.	No
Topic Paper: Economy and Employ	yment	
B1- Employment & Skills Plans	The policy requires major housing development schemes (of 20 or more units) to submit an Employment and Skills Plan. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
B2- Existing Employment Sites	 The policy seeks to safeguard the following existing large employment sites: Land at Kingsway Framework 5 Land at Spinnaker Park Land at Corinium Avenue Land to the North of Walls Land at Waterwells Business Park Land at Northern Railway Triangle Land at Bristol Road The sites have already gained planning permission and are unlikely to lead to any significant	No
	effects.	

B3- New Employment Sites	 The policy allocates new employment sites within the City, which shall be safeguarded for B use class development: Land to East of Waterwells Secunda Way Industrial Estate The sites are screened in the site allocations section below. Please refer to individual site allocation screening details. The policy also supports development within the Strategic Allocations as outlined in Policy SA1 of the JCS (these sites have already been subject to HRA), as well as within new or existing buildings within Gloucester, and at suitable locations where it would encourage mixed use development, the expansion of existing businesses and small and medium sized enterprises. Existing site expansion / mixed use development is unlikely to lead to any significant effects.	See individual site allocation screening below.
B4: Existing Employment Space	The policy seeks to protect Use Class B1 in the City Centre. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
B5- New Employment Space	The policy sets the criteria that new employment development must meet in order to be considered acceptable. The policy does not propose development itself, however it does seek to mitigate the potential impacts of employment development, including on the natural environment. The policy is unlikely to lead to significant effects.	No
Topic Paper: Housing		
A1- Use of upper floors for residential	The policy supports proposals to change the use of upper floors in the City Centre to residential. The policy is unlikely to lead to significant effects.	No
A2-Regeneration of Neighbourhoods	The policy supports the regeneration of neighbourhoods. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
A3- Sub-division of Plots for Infill	The policy sets the criteria for the sub-division of plots for the construction of additional dwellings to be considered acceptable. The policy is unlikely to lead to any significant effects.	No
A4- Intensification of use of existing dwellings	The policy sets the criteria in which the intensification of use of existing dwellings is considered acceptable. The policy is unlikely to lead to any significant effects.	No
A5- Housing Mix	The policy seeks to deliver an appropriate mix of housing types and tenures in new development. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
A5- Student Housing	The policy seeks to deliver student accommodation within the City Centre. The policy however does not identify a location and at this stage is considered unlikely to lead to any significant effects.	No
A6- Housing Choice for older people and Supported and Special Needs Housing	The policy sets the criteria and expected standards for care accommodation development to be considered acceptable. It is unlikely to lead to any significant effects.	No

A7- Self Build	The policy seeks to support opportunities for self-build in new development schemes. The policy does not propose development itself and is unlikely to lead to any significant effects.	No
A8- Static Caravan Sites	The policy safeguards existing static caravan sites shown on the proposals map. The policy does not propose new development and is unlikely to lead to any significant effects.	No
A9- Extensions to existing dwellings	The policy sets the criteria for extensions of residential properties and the erection of outbuildings to be considered acceptable. The policy does not propose new development and is unlikely to lead to any significant effects.	No
A10- Annexes to existing dwellings	The policy sets the criteria for the development of an annexe to be considered acceptable. The policy is unlikely to lead to any significant effects.	No
Site Allocations		
Site Ref: 1 Site Name: King's Quarter City Plan Ref: WN4 SALA Ref: HA2 • Mixed use/ town centre uses • 50 residential dwellings • 5,000 m ² commercial • 2.2ha unconstrained site area	The site is 6.6km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	No
Site Ref: 2 Site Name: Quayside & Barbican City Plan: WN2 SALA Ref: HA17 This site is part of the larger Greater Blackfriars regeneration scheme.	The site is just over 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. Adjacent to the site on the Western side is the River Severn. There is the potential for negative impacts on the water quality of the River Severn and therefore there is the potential for indirect effects on the River Severn Ramsar/SAC/SPA. The A4301 is adjacent to the West of the site, and development could have a potential increase in traffic on A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution.	Yes
 Residential 400 residential dwellings 4,000 m² commercial 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	

Site Ref: 3 Site Name: Gloucester Prison City Plan: WN2 SALA Ref: HA17 This site is part of the larger Greater Blackfriars regeneration scheme. Residential 400 residential dwellings 4,000 m ² commercial	The site is just over 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. Adjacent to the site on the Western side is the River Severn. There is the potential for negative impacts on the water quality of the River Severn and therefore there is the potential for indirect effects on the River Severn Ramsar/SAC/SPA. The A4301 is adjacent to the West and South of the site, and development could have a potential increase in traffic on A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
Site Ref: 4 Site Name: Ladybellgate Street Car Park City Plan: WN2 SALA Ref: HA17 This site is part of the larger Greater Blackfriars regeneration scheme.	The site is 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. The A4301 is adjacent to the South of the site, and development could have a potential increase in traffic on A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
 Mixed-use 400 residential dwellings 4,000 m² commercial 		
Site Ref: 5 Site Name: Longsmith Street Car Park City Plan: WN2 SALA Ref: HA17	The site is just under 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Νο
This site is part of the larger Greater Blackfriars regeneration scheme. • Mixed-use • 400 residential dwellings		

 4,000 m² commercial 		
Site Ref: 6 Site Name: The Fleece City Plan Ref: WN2 SALA Ref: HA17	The site is just under 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	No
This site is part of the larger Greater Blackfriars regeneration scheme.	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
 Mixed-use 400 residential dwellings 4,000 m² commercial 		
Site Ref: 7 Site Name: Southgate Moorings City Plan Ref: WN6 SALA Ref: FS02 This site is part of the larger	The site is just under 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. The site is located next to Gloucester Docks and could have a potential impact on the water quality of the docks, however this is unlikely to indirectly impact the River Severn Ramsar/SAC/SPA. The A4301 is adjacent to the East of the site, and development could have a potential increase in traffic on A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA	Yes
Greater Blackfriars regeneration scheme.	through an increase in traffic and atmospheric pollution.	
 Mixed-use 400 residential dwellings 4,000 m² commercial 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 8 Site Name: Victoria Docks City Plan Ref: WN6 SALA Ref: SUB35	The site is just under 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. The site is located next to Gloucester Docks and could have a potential impact on the water quality of the docks, however this is unlikely to indirectly impact the River Severn Ramsar/SAC/SPA.	No
This site is part of the larger Greater Blackfriars regeneration scheme.	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	

 Residential with commercial at ground floor 400 residential dwellings 4,000 m² commercial 		
Site Ref: 9 Site Name: 104 Northgate Street City Plan Ref: WN3 SALA Ref: FS10	The site is just under 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a significant direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	No
 Residential with commercial at ground floor 20 residential dwellings 50 m² commercial 0.06ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 10 Site Name: Land at 'The Wheatridge' City Plan Ref: A1 SALA Ref: SUB09 Residential with Open Space 50 residential dwellings 2.28ha unconstrained site area	The site is located just under 3km away from the Cotswolds Beechwoods SAC which is vulnerable to recreational and leisure activities, however it is located outside of the Plan area, and given the small scale development proposed, significant direct impacts are unlikely. The River Twyver runs along the North East of the site connecting to the River Severn. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The Sud Brook runs to the South West of the site connecting to the Gloucester Docks. There is the potential for negative impacts on the water quality of Sud Brook however this is unlikely to indirectly impact the River Severn Ramsar/SAC/SPA. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
Site Ref: 11 Site Name: Norville Site, Tarrington Road City Plan Ref: BT1 SALA Ref: HA29	The site is located 5.4 kilometers from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact. Suds Brook runs through the site which connects to Gloucester Docks. There is the potential for negative impacts on the water quality of Sud Brook however this is unlikely to indirectly affect the River Severn Ramsar/SAC/SPA. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	No
 Residential 60 residential dwellings 0.84ha unconstrained site area 		

Site Ref: 12 Site Name: Helipebs, Sisson Road City Plan Ref: E2 SALA Ref: SUB04	The site is located just over 5km away from the Cotswolds Beechwoods SAC site and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	No
 Residential 53 residential dwellings 1.6h unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 13 Site Name: Former Civil Service Club City Plan Ref: KW1 SALA Ref: SUB52	The site is located over 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. The A38 runs to the North of the site and the A430 runs adjacent to the West. Development could result in increased traffic along A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution.	Yes
 Residential with open space 60 residential dwellings 3.6ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 14 Site Name: 67-69 London Road City Plan Ref: KW3	The site is located 6.5km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	No
 Employment/Residential 30 residential dwellings 0.35ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref(s): 15 & 16 Site Name: (Railway Corridor) Wessex House and Former Telecom House	The sites are located 6.4km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	Νο
 Parking spaces / infrastructure 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	

Site Ref: 17 Site Name: Great Western Road Sidings City Plan Ref: KW7 SALA Ref: HA20 This site is part of the Railway Corridor regeneration scheme • Residential • 100 residential dwellings • 4.34ha unconstrained site area	The site is located just over 6km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	No
Site Ref: 18 Site Name: Former Bishops College City Plan Ref: L1 SALA Ref: SUB50 Residential with retained/reconfigured playing pitches 108 residential dwellings 9.18ha unconstrained site area	The site is located 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. Wotton Brook runs to the North and East of the site connecting to the River Severn There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The A38 runs adjacent South of the site and the development could result in increased traffic along A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
Site Ref: 19 Site Name: Land of Leven Close City Plan Ref: L2 SALA Ref: HA26 • Residential with open space • 20 residential dwellings • 1.4ha unconstrained site area	The site is located just over 6m away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	No

Site Ref: 20 Site Name: Land East of Waterwells City Plan Ref: QF1 SALA Ref: EA03	The site is located 5.2km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. Dimore Brook runs through the middle of the site, and flows into the River Severn further downstream. There is the potential for negative impacts on the water quality of the River Severn and therefore there is the potential for indirect effects on the River Severn Ramsar/SAC/SPA. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
Site Ref: 21 Site Name: Land at Clearwater Drive City Plan Ref: QSV1 SALA Ref: HA24/SUB18 • Residential with Open Space • 30 residential dwellings • 2.09ha unconstrained site area	The site is 5km from Walmore Common SAC and is therefore unlikely to have a direct impact alone. Along the Northern boundary of the site is the Gloucester and Sharpness canal which connects to the River Severn Ramsar/SPA/SAC. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
Site Ref: 22 Site Name: Land South of Grange Road City Plan Ref: T1 SALA Ref: SUB44 Residential 198 residential dwellings (appn up to 250) 16.55ha unconstrained site area	The site is located 4.7km from Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. Along the Southern boundary of the site runs Daniels Brook and another Brook runs North of the site, both connect to the Gloucester and Sharpness canal. There is the potential for negative impacts on the water quality of the Brooks however this is unlikely to indirectly affect the River Severn Ramsar/SPA/SAC. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Νο
Site Ref: 23 Site Name: Spinnaker Park City Plan Ref: WS9 SALA Ref: NLUD01 • Employment	The site is located 7.4km away from the Walmore Common SPA and is therefore unlikely to have a direct impact alone. The site is bordered by a drainage system on its Western boundary which flows into the River Severn. There is the potential for development to have an impact on the drainage system which could affect the water quality of the River Severn and therefore there is the potential for an indirect impact on the River Severn Ramsar/SPA/SAC. The A430 runs to the East of the site and the development could result in increased traffic along A-roads in the area. The A48	Yes

	runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution.	
	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 24 Site Name: South West Bypass Site City Plan Ref: WS11 SALA Ref: EA04	The site is located just under 7km from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	Νο
 Employment 0.7ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 25 Site Name: Land at Rea Lane, Hempsted City Plan Ref: W\$14 SALA Ref: SUB54	The site is located 6.5km from Walmore Common SPA and is therefore is therefore unlikely to have a direct impact alone. 500 metres to the West of the site is the River Severn. There is the potential for negative impacts on water quality, which could have indirect impacts on the River Severn Ramsar/SPA/SAC.	Yes
 Residential 1.5ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 26 Site Name: Land adjacent to Eastgate Shopping Centre SALA Ref: HA16	The site is just under 7km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	No
 Retail/town centre uses Up to 5000 sqm gross retail (comparison goods focused) 0.32ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 27 Site Name: Newark Farm SALA Ref: SUB57	The site is located 7km away from Walmore Common SPA and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	No
Residential	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	

Site Ref: 28 Site Name: Land adjacent to St Oswalds Retail Park SALA Ref: SUB28 Residential 65 residential dwellings 2.5ha unconstrained site area	The site is 7.8 kilometers from Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. Less than 200 meters to the West of the site is the River Severn. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The A417 is East of the site and the development could result in increased traffic along A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
Site Ref: 29 Site Name: Allstones, Myers Road SALA Ref: SUB43	The is 5.5km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. The Wotton Brook runs along the Eastern boundary of the site and flows into the River Severn. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site.	Yes
Residential250 residential dwellings	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 30 Site Name: Barnwood Manor Residential 57 residential dwellings 1.95ha unconstrained site	The site is 4km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. Flowing through the middle of the site is Wotton Brook which connects to the River Severn. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
area Site Ref: 31 Site Name: Redcliffe College, Horton Road • Residential/Leisure/Employme	The site is located just over 6 kilometers from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	No
nt 38 residential dwellings 1.3ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 32 Site Name: Holly House, Barnwood	The site is located 4km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. The River Twyver runs South of the site and connects to the River	Yes

 Residential 34 residential dwellings 1.16ha unconstrained site area 	Severn. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 33 Site Name: Fieldview House, Barnwood/Abby • Residential	This site is located just under 4km away from the Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone. The River Twyver runs South West of the site and connects to the River Severn. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site.	Yes
 12 residential dwellings 0.36ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 34	This site is located just under 6km away from the Cotswolds Beechwoods SAC and is therefore	No
Site Name: Land off Horton	unlikely to have a direct impact alone. There are no potential environmental pathways for indirect	
Road (NHS)	negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	
Residential		
 21 residential dwellings 0.72ha unconstrained site area 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 35	Site is located just over 3km from the Cotswolds Beechwoods SAC. Due to the small size of the	No
Site Name: Hallmark Hotel, Matson	development it is unlikely to have a direct impact alone. There are no potential environmental pathways for indirect negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	
 Residential 13 residential dwellings 0.43ha unconstrained site 	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
area	Site is leasted 4.7 kilometers much from the Catework is Departure and CAC, and is the sectors well as the	
Site Ref: 37 Site Name: Land adjacent to St	Site is located 4.7 kilometers away from the Cotswolds Beechwoods SAC, and is therefore unlikely to have a direct impact alone. There are no potential environmental pathways for indirect	No
Aldates	negative impacts, and development is unlikely to have a significant impact on any of the European designated sites in the area.	
 Residential 		
16 residential dwellings	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	

• 0.5ha unconstrained site area		
Site Ref: 39 Site Name: Land East of Hempsted Lane City Plan Ref: W\$12 Sala Ref: SUB06 • Residential	The site is located 7km from Walmore Common SPA and just over 7km from Cotswolds Beechwoods SAC and is therefore unlikely to have a direct impact alone on these sites. The A430 is East of the site and the development could result in increased traffic along A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
 50 residential dwellings 3.38ha unconstrained site area 		
Site Ref: 40 Site Name: MOD Site, Hempsted City Plan Ref: WS10 SALA Ref: HA11 Residential Consent 85 residential dwellings	The site is 7.2km from Walmore Common SPA and is therefore unlikely to have a direct impact alone. The site is bordered by a drainage system on its Northern boundary which flows into the River Severn. There is the potential for development to have an impact on the drainage system which could affect the water quality of the River Severn and therefore there is the potential for an indirect impact on the River Severn Ramsar/SPA/SAC. The A430 runs to the East of the site and the development could result in increased traffic along A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution.	Yes
	The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	
Site Ref: 41 Site Name: Former Contract Chemicals et al Residential-led consent 340 residential dwellings 9.19ha unconstrained site area	The site is located 6.6km away from the Cotswolds Beechwoods SAC To the West of the site is the Gloucester and Sharpness canal which connects to the River Severn Ramsar/SPA/SAC. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The potential in-combination effects are considered in Section 4 of the HRA Screening Report.	Yes
Site Ref: 44 Site Name: Land adjacent to Wall's Factory City Plan Ref: B1 Sala Ref: EA10 • Employment	The site is located 5km away from the Cotswolds Beechwoods SAC and so is therefore unlikely to have a direct impact alone. Adjacent to the sit flows Horsbere Brook connecting to the River Severn. There is the potential for indirect impacts on water quality which would affect the River Severn Ramsar/SAC/SPA site. The A40 also runs adjacent to the site and the development could result in increased traffic along A-roads in the area. The A48 runs adjacent to Walmore Common SPA, therefore there is a potential indirect impact on the SPA through an increase in traffic and atmospheric pollution.	Yes

 29,917 sqm net employment 	
floorspace (B1 11,971 sqm, B2	
6,671 sqm, B8 7,573 sqm,	
1,700 car showroom)	
6.4ha unconstrained site area	

Appendix III

Appendix IV: European Sites Screening

Screening Summary Key

Likely Significant Effect	Yes	Further Appropriate Assessment required
No Likely Significant Effect	No	No further Appropriate Assessment required as no pathways identified
Significant Effect Uncertain	?	Precautionary approach taken and further Appropriate Assessment required

	Cotswold Beechwoods SAC							
Potential impacts of the Plan	Environmental Pathways	Is the site sensitive/ vulnerable to these impacts?	Risk?	Potential avoidance/ mitigation	LSE alone?	Potential impacts of other plans and programmes	Potential avoidance/ mitigation	LSE in- comb?
Reduced air quality through increased traffic and emissions. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance.	The evidence does not indicate that there is an issue. APIS show that critical loads of Nitrogen are being exceeded at this site for the Beech Forests, however critical loads of nitrogen are not being exceeded for the Calcareous Grassland. Critical loads for acid deposition are not being exceeded at the site for either Beech Forest or Calcareous Grassland.	Yes	Mitigation provided through draft Gloucester City Plan policies: Design: CPXX- Cycle Parking & Storage- This policy encourages uses of cycling (sustainable transport) by ensuring developments have space for cycle storage. Design: CPXX- Transport Arrival Nodes- This policy encourages the regeneration key public transport nodes which should help reduce traffic by encouraging use of	Νο	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	No

sustainable public transport methods.
Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets.
Health & Wellbeing: Policy CPXX- Active Design- This policy ensures walking and cycling are encouraged through design.
Health & Wellbeing: Policy CPXX-Air Quality- The policy ensures developments do not contribute to increased air pollution and design should reduce exposure to pollutants.
Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution that will have a negative effect on the environment.
Sustainable Transport: 1- The policy encourages new development to provide cycle parking and storage. Sustainable Transport:

2- The policy encourages improvement to the sustainable transport network.
Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.
Mitigation provided through GCT JCS policies:
Policy C6 - requires new development to contribute to a healthier urban environment through maintaining or improving air quality.
Policy S3 - requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.
Policy S4 – requires that new development should be designed to prioritise movement by sustainable transport modes and encourage.

				Policy \$10 – development is required to protect and enhance Green Infrastructure (GI) assets. Policy C7 – requires all proposals to include provision of transportation measures including opportunities for installation or retrospective installation of new transport technologies such as electric car plug-in and ultra-low emission vehicle fuelling.				
				Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a transport, a dust and a GI assessment.				
				Policy D3 – requires that the exacerbation of atmospheric pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.				
Increased disturbance through recreational	The site lies approx. 2.4 km outside of the Plan area and there are no potential pathways for noise and light	Yes, outdoor sports, leisure and recreational activities are an issue at the site.	Yes	Mitigation provided through draft Gloucester City Plan policies:	No	There is the potential for the policies to act in combination with a	See previous avoidance/ mitigation column	No

activity, noise and light pollution. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	pollution. It is unlikely that there will be a significant increase in recreational activity.		Health & Wellbeing: Policy CPXX-Outdoor Space- The policy aims to ensure amenity and garden space is retained, ensuring people will not need to go to the SAC for recreational use if there are spaces for recreation in the city boundary.	number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	for outlined draft policy mitigation.	
			Health & Wellbeing: Policy CPXX-Open Space- The policy ensures large employment and residential developments will need to provide an appropriate amount of open public space.			
			Health & Wellbeing: Policy CPXX- Provision of Playing Pitches in New Development- The policy will ensue that development residents sporting needs are met, ensuring recreational space will be provided.			
			Health & Wellbeing: Policy CPXX- Protection of Open Space and Playing Fields- The policy ensure that the loss of open space and playing fields is prevented.			
			Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to			

protect and enhance Green Infrastructure as	sets.
Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protect landscapes from negat effects of developmen	ted tive
Health & Wellbeing: Policy CPXX-Pollution-T policy prevents development which wi cause pollution (includi light pollution) that will a negative effect on the environment.	ll ing have
Health & Wellbeing: Policy CPXX-Noise- The policy states that unacceptable noise lev next to noise sensitive z will not be permitted.	vels
Natural Environment: CPXX- Biodiversity- The policy will protect biodiversity from possib harm caused by development.	le
Mitigation provided thre GCT JCS policies:	ough
Policy C6 - Supporting Healthy Lifestyles and Wellbeing. The Policy requires new developm	nent

to contribute to a healthier urban environment through minimizing disturbance associated with light, noise and odour. It also requires that new development delivers public open space that is safe, encourages active use and maximizes opportunities for informal recreation.	
Policy S3 - requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.	
Policy S4 – requires that new development should provide and/or link into Green Space.	
Policy \$10 – development is required to protect and enhance Green Infrastructure (GI) assets.	
Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied	

				by a noise, a dust and a GI assessment. Policy D3 – requires that the exacerbation of noise pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.				
Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Draft Gloucester City Plan Site Allocations: 2, 3, 10, 18, 20, 21, 23 25, 28, 29, 30, 32, 33, 40, 41, 44 Policies: B3	The site is outside the plan area and proposed development is not likely to result in any increased nutrient input to the site as a result of consented discharge. There are no pathways for impacts on surface water runoff or water quality at the site. The site is situated within the Seven Water Resource Zone however increased levels of abstraction are unlikely to affect the integrity of the site.	The evidence does not indicate that there is an issue.	No	No pathways for LSE	Νο	No pathways for LSE	No pathways for LSE	Νο

Rodborough Common SAC								
Potential impacts of the Plan	Environmental Pathways	Is the site sensitive/ vulnerable to these impacts?	Risk?	Potential avoidance/ mitigation	LSE alone?	Potential impacts of other plans and programmes	Potential avoidance/ mitigation	LSE in- comb?
Reduced air quality through increased traffic and emissions. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance.	Yes, the site is vulnerable to air-borne pollutants Critical loads of Nitrogen are not being exceeded at this site. Critical loads for acid deposition are not being exceeded at the site.	Yes	 Mitigation provided through draft Gloucester City Plan policies: Design: CPXX- Cycle Parking & Storage- This policy encourages uses of cycling (sustainable transport) by ensuring development s have space for cycle storage. Design: CPXX- Transport Arrival Nodes- This policy encourages the regeneration key public transport nodes which should help reduce traffic by encouraging use of sustainable public transport methods. Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets. Health & Wellbeing: Policy CPXX- Active Design- This policy ensures walking and cycling are encouraged through design. 	No	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	No

	Policy CF policy en develop contribut pollution	ments do not te to increased air and design should exposure to		
	Policy CF policy pr developr cause po	ment which will bllution that will legative effect on		
	1- The po new dev	ble Transport: blicy encourages elopment to cycle parking and		
	2- The po improver	ole Transport: vlicy encourages ment to the ole transport		
	CPXX- La policy air vulnerab landscap	invironment: Indscape- The ms to protect le and protected pes from negative f development.		
	Mitigatio GCT JCS	n provided through policies:		

develop to a hec environr	6 - requires new ment to contribute Ilthier urban nent through ning or improving air
develop high star under BF Sustaina set minir CO2 and earned measure pollution	B - requires all ment to achieve hdards / levels REEAM or Code For ble Homes. These num standards for d credits can be by incorporating es to reduce h, if the developer to do so.
develop designer moveme	I - requires that new ment should be d to prioritise ent by sustainable t modes and age.
required enhance	0 – development is to protect and e Green cture (GI) assets.
proposa provision measure opportu or retros of new t technolo	7 - requires all Is to include a of transportation es including nities for installation pective installation ransport ogies such as car plug-in and

				ultra-low emission vehicle fuelling. Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a transport, a dust and a Gl assessment. Policy D3 – requires that the exacerbation of atmospheric pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.				
Increased disturbance through recreational activity, noise and light pollution. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	The site lies approx. 8.3 km outside of the Plan area so there are no pathways for noise and light pollution, and it is unlikely that there will be a significant increase in recreational activity.	Yes, outdoor sports, leisure and recreational activities are an issue at the site.	Yes	Mitigation provided through draft Gloucester City Plan policies: Health & Wellbeing: Policy CPXX-Outdoor Space- The policy aims to ensure amenity and garden space is retained, ensuring people will not need to go to the SAC for recreational use if there are spaces for recreation in the city boundary. Health & Wellbeing: Policy CPXX-Open Space- The policy ensures large employment and residential	Νο	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	Νο

developments will need to provide an appropriate amount of open public space.	
Health & Wellbeing: Policy CPXX- Provision of Playing Pitches in New Development- The policy will ensue that development residents sporting needs are met, ensuring recreational space will be provided.	
Health & Wellbeing: Policy CPXX- Protection of Open Space and Playing Fields- The policy ensure that the loss of open space and playing fields is prevented.	
Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets.	
Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.	
Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution (including	

light pollution) that will have a negative effect on the environment.	
Health & Wellbeing: Policy CPXX-Noise- The policy states that unacceptable noise levels next to noise sensitive zones will not be permitted.	
Natural Environment: CPXX- Biodiversity- The policy will protect biodiversity from possible harm caused by development.	
Mitigation provided through GCT JCS policies:	
Policy C6 - Supporting Healthy Lifestyles and Wellbeing. The Policy requires new development to contribute to a healthier urban environment through minimizing disturbance associated with light, noise and odour. It also requires that new development delivers public open space that is safe, encourages active use and maximizes opportunities for informal recreation.	
Policy S3 - requires all development to achieve high standards / levels	

under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.	
Policy S4 – requires that new development should provide and/or link into Green Space.	
Policy \$10 – development is required to protect and enhance Green Infrastructure (GI) assets.	
Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a noise, a dust and a GI assessment.	
Policy D3 – requires that the exacerbation of noise pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.	

Changes to	The site is outside the plan area	The evidence does not	No	No pathways for LSE	No	No pathways for LSE	No pathways for	No
water levels and	and proposed development is	indicate that there is					LSE	
quality though	not likely to result in any	an issue.						
increased levels	increased nutrient input to the							
of abstraction,	site as a result of consented							
surface water	discharge. There are no							
runoff and	pathways for impacts on							
sewerage	surface water runoff or water							
discharge.	quality at the site.							
Draft Gloucester								
City Plan	Water is transferred between							
Site Allocations:	resource zones by Thames							
2, 3, 10, 18, 20,	Water and Severn Trent Water.							
21, 23 25, 28, 29,	although increased levels of							
30, 32, 33, 40, 41,	abstraction are unlikely to							
44	affect the integrity of the site.							
Policies: B3								

	Severn Estuary SAC, Ramsar and SPA							
Potential impacts of the Plan	Environmental Pathways	Is the site sensitive/ vulnerable to these impacts?	Risk?	Potential avoidance/ mitigation	LSE alone?	Potential impacts of other plans and programmes	Potential avoidance/ mitigation	LSE in- comb?
Reduced air quality through increased traffic and emissions. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: F8 & B3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC, Ramsar or SPA. It is therefore determined that there are no pathways for short range atmospheric pollution. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance.	The evidence does not indicate that there is an issue. Critical loads of Nitrogen are not being exceeded at this site. Critical loads for acid deposition are not being exceeded at the site.	Νο	No pathways for LSE	Νο	No pathways for LSE	No pathways for LSE	Νο
Increased disturbance through recreational activity, noise and light pollution. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: F8 & B3	The site lies approx. 8.1 km outside of the Plan area so there are no pathways for noise and light pollution, and it is unlikely that there will be a significant increase in recreational activity.	Yes, outdoor sports, leisure and recreational activities are an issue at the site.	Yes	Mitigation provided through draft Gloucester City Plan policies: Health & Wellbeing: Policy CPXX-Outdoor Space- The policy aims to ensure amenity and garden space is retained, ensuring people will not need to go to the SAC for recreational use if there are spaces for recreation in the city boundary. Health & Wellbeing:	Νο	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	Νο

Policy CPXX-Open Space- The policy ensures large employment and residential developments will need to provide an appropriate amount of open public space.
Health & Wellbeing: Policy CPXX- Provision of Playing Pitches in New Development- The policy will ensue that development residents sporting needs are met, ensuring recreational space will be provided.
Health & Wellbeing: Policy CPXX- Protection of Open Space and Playing Fields- The policy ensure that the loss of open space and playing fields is prevented.
Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets.
Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development. Health & Wellbeing:

Policy CPXX-Pollution- The	
policy prevents	
development which will	
cause pollution (including	
light pollution) that will have	
a negative effect on the	
environment.	
Health & Wellbeing:	
Policy CPXX-Noise- The	
policy states that	
unacceptable noise levels	
next to noise sensitive zones	
will not be permitted.	
Natural Environment:	
CPXX- Biodiversity- The	
policy will protect	
biodiversity from possible	
harm caused by	
development.	
Mitigation provided through	
GCT JCS policies:	
Policy C6 - Supporting	
Healthy Lifestyles and	
Wellbeing. The Policy	
requires new development	
to contribute to a healthier	
urban environment through	
minimizing disturbance	
associated with light, noise	
and odour. It also requires	
that new development	
delivers public open space	
that is safe, encourages active use and maximizes	
opportunities for informal	
recreation.	

	Policy S3 - requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.		
	Policy S4 – requires that new development should provide and/or link into Green Space.		
	Policy \$10 – development is required to protect and enhance Green Infrastructure (GI) assets.		
	Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a noise, a dust and a GI assessment.		
	Policy D3 – requires that the exacerbation of noise pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.		

Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Draft Gloucester City Plan Site Allocations: 2, 3, 10, 18, 20, 21, 23 25, 28, 29, 30, 32, 33, 40, 41, 44 Policies: F8 & B3	The site is in outside the Plan area. There are many water courses on the allocation sites and within the Gloucester area that eventually flow into the River Severn and therefore there are pathways for potential LSE on water quality. Increased abstraction has the potential to affect water levels at the site - water is transferred between resource zones by Welsh Water and Severn Trent Water.	The site is vulnerable to changes in hydraulic conditions.	Yes	Mitigation provided through draft Gloucester City Plan policies: Flooding and Water Management: CPXX- The policy aims to prevent flooding from occurring and effective and sustainable management of water resources. Design: CPXX- Design & Climate Change- The policy states that development should have a high level of environmental awareness and contributes to climate change mitigation and prevention. Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development. Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution (including water pollution) that will have a negative effect on the environment. Health & Wellbeing:	Νο	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	Νο
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Policy CPXX- Contamination- This policy is aimed to prevent contamination of groundwater.
Mitigation provided through GCT JCS policies:
Policy S3 requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for water use and efficiency and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so. This should reduce water abstraction and could reduce pollution.
Policy \$10 requires development to protect and enhance Green Infrastructure assets which could help intercept pollutants and improve water quality.

Wye Valley and Forest of Dean Bat Sites SAC								
Potential impacts of the Plan	Environmental Pathways	Is the site sensitive/ vulnerable to these impacts?	Risk?	Potential avoidance/ mitigation	LSE alone?	Potential impacts of other plans and programmes	Potential avoidance/ mitigation	LSE in- comb?
Reduced air quality through increased traffic and emissions. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance.	The evidence does not indicate that there is an issue. APIS shows that critical loads of Nitrogen are being exceeded for Broadleaved Deciduous woodlands habitat which is home to both the Greater and Lesser Horseshoe Bat Critical loads for acid deposition are not being exceeded at the site.	Yes	Mitigation provided through draft Gloucester City Plan policies: Design: CPXX- Cycle Parking & Storage- This policy encourages uses of cycling (sustainable transport) by ensuring developments have space for cycle storage. Design: CPXX- Transport Arrival Nodes- This policy encourages the regeneration key public transport nodes which should help reduce traffic by encouraging use of sustainable public transport methods. Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets. Health & Wellbeing: Policy CPXX- Active Design- This policy ensures walking and cycling are encouraged through design.	No	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	No

	Health & Wellbeing: Policy CPXX-Air Quality- The policy ensures developments do not contribute to increased air pollution and design should reduce exposure to pollutants.		
	Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution that will have a negative effect on the environment.		
	Sustainable Transport: 1- The policy encourages new development to provide cycle parking and storage.		
	Sustainable Transport: 2- The policy encourages improvement to the sustainable transport network.		
	Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.		
	Mitigation provided through GCT JCS policies:		

developr to a heal environm	- requires new ment to contribute thier urban ment through ing or improving air
developm high stan under BR Sustainat set minim CO2 and earned b measures	- requires all ment to achieve dards / levels EEAM or Code For ble Homes. These hum standards for I credits can be by incorporating is to reduce if the developer to do so.
developr designed moveme	- requires that new ment should be It to prioritise nt by sustainable modes and ge.
required enhance	D – development is to protect and Green ture (GI) assets.
proposal provision measures opportun or retrosp of new tra- technolo	 requires all s to include of transportation s including ities for installation pective installation ansport gies such as car plug-in and

				ultra-low emission vehicle fuelling. Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a transport, a dust and a Gl assessment. Policy D3 – requires that the exacerbation of atmospheric pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.				
Increased disturbance through recreational activity, noise and light pollution. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	The site lies approx. 20 km outside of the Plan area so there are no pathways for noise and light pollution, and it is unlikely that there will be a significant increase in recreational activity.	Yes, outdoor sports, leisure and recreational activities are an issue at the site.	Yes	Mitigation provided through draft Gloucester City Plan policies: Health & Wellbeing: Policy CPXX-Outdoor Space- The policy aims to ensure amenity and garden space is retained, ensuring people will not need to go to the SAC for recreational use if there are spaces for recreation in the city boundary. Health & Wellbeing: Policy CPXX-Open Space- The policy ensures large employment and residential	Νο	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	Νο

developments will need to provide an appropriate amount of open public space.	
Health & Wellbeing: Policy CPXX- Provision of Playing Pitches in New Development- The policy will ensue that developmen residents sporting needs are met, ensuring recreational space will be provided.	
Health & Wellbeing: Policy CPXX- Protection of Open Space and Playing Fields- The policy ensure that the loss of open space and playing fields is prevented.	
Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets.	
Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.	
Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution (including	

light pollution) that will have a negative effect on the environment.	
Health & Wellbeing: Policy CPXX-Noise- The policy states that unacceptable noise levels next to noise sensitive zones will not be permitted.	
Natural Environment: CPXX- Biodiversity- The policy will protect biodiversity from possible harm caused by development.	
Mitigation provided through GCT JCS policies:	
Policy C6 - Supporting Healthy Lifestyles and Wellbeing. The Policy requires new development to contribute to a healthier urban environment through minimizing disturbance associated with light, noise and odour. It also requires that new development delivers public open space that is safe, encourages active use and maximizes opportunities for informal recreation.	
Policy S3 - requires all development to achieve high standards / levels	

				under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.				
				Policy S4 – requires that new development should provide and/or link into Green Space.				
				Policy \$10 – development is required to protect and enhance Green Infrastructure (GI) assets.				
				Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a noise, a dust and a GI assessment.				
				Policy D3 – requires that the exacerbation of noise pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.				
Changes to water levels and quality though increased levels	The site is outside the plan area and proposed development is not likely to result in any increased nutrient input to the	The SAC is vulnerable to modifications of the ecosystem as well as	No	No pathways for LSE	No	No pathways for LSE	No pathways for LSE	No

of abstraction,	site as a result of consented	changes in hydraulic			
surface water	discharge. There are no	conditions.			
runoff and	pathways for impacts on				
sewerage	surface water runoff or water				
discharge.	quality at the site.				
Draft Gloucester					
City Plan					
Site Allocations:					
2, 3, 10, 18, 20,					
21, 23 25, 28, 29,					
30, 32, 33, 40, 41,					
44					
Policies: B3					

		Wo	almore	Common SPA				
Potential impacts of the Plan	Environmental Pathways	Is the site sensitive/ vulnerable to these impacts?	Risk?	Potential avoidance/ mitigation	LSE alone?	Potential impacts of other plans and programmes	Potential avoidance/ mitigation	LSE in- comb?
Reduced air quality through increased traffic and emissions. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	A small proportion of the site lies in close proximity (within 200m) to the A48, passing to its East and South. There is potential for proposed development to increase the level of traffic along the A48. Therefore, there is a pathway for short range atmospheric pollutants. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance.	The evidence does not indicate that there is an issue. Critical load info not available for this feature.	Yes	Mitigation provided through draft Gloucester City Plan policies: Design: CPXX- Cycle Parking & Storage- This policy encourages uses of cycling (sustainable transport) by ensuring development s have space for cycle storage. Design: CPXX- Transport Arrival Nodes- This policy encourages the regeneration key public transport nodes which should help reduce traffic by encouraging use of sustainable public transport methods.	Νο	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	Νο
				Natural Environment: CPXX- Green Infrastructure (GI)- This policy aims to protect and enhance Green Infrastructure assets. Health & Wellbeing: Policy CPXX- Active Design- This policy ensures walking				

and cycling are encouraged through design.
Health & Wellbeing: Policy CPXX-Air Quality- The policy ensures developments do not contribute to increased air pollution and design should reduce exposure to pollutants.
Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution that will have a negative effect on the environment.
Sustainable Transport: 1- The policy encourages new development to provide cycle parking and storage.
Sustainable Transport: 2- The policy encourages improvement to the sustainable transport network.
Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development.

Mitigation provided through GCT JCS policies: Image: Comparison of the second
Policy C6 - requires new development to contribute to a healthier urban environment through maintaining or improving air quality.
Policy S3 - requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.
Policy S4 – requires that new development should be designed to prioritise movement by sustainable transport modes and encourage.
Policy S10 – development is required to protect and enhance Green Infrastructure (GI) assets.
Policy C7 – requires all proposals to include provision of transportation measures including opportunities for installation or retrospective installation

				of new transport technologies such as electric car plug-in and ultra-low emission vehicle fuelling. Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a transport, a dust and a GI assessment. Policy D3 – requires that the exacerbation of atmospheric pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or through financial contributions.				
Increased disturbance through recreational activity, noise and light pollution. Draft Gloucester City Plan Site Allocations: 2, 3, 4, 7, 13, 18, 23, 28, 39, 40, 44 Policies: B3	The site lies approx. 4 km outside of the Plan area so there are possible pathways for noise and light pollution, however it is unlikely that there will be a significant increase in recreational activity.	Yes, outdoor sports, leisure and recreational activities are an issue at the site.	Yes	Mitigation provided through draft Gloucester City Plan policies: Health & Wellbeing: Policy CPXX-Outdoor Space- The policy aims to ensure amenity and garden space is retained, ensuring people will not need to go to the SAC for recreational use if there are spaces for recreation in the city boundary. Health & Wellbeing:	No	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	No

[]	1	Policy CPXX-Open Space-			
		The policy ensures large			
		employment and residential			
		developments will need to			
		provide an appropriate			
		amount of open public			
		space.			
		space.			
		Health & Wellbeing:			
		Policy CPXX- Provision of			
		Playing Pitches in New			
		Development- The policy			
		will ensue that development			
		residents sporting needs are			
		met, ensuring recreational			
		space will be provided.			
		Health & Wellbeing:			
		Policy CPXX- Protection of			
		Open Space and Playing			
		Fields- The policy ensure			
		that the loss of open space			
		and playing fields is			
		prevented.			
		Natural Environment:			
		CPXX- Green Infrastructure			
		(GI)- This policy aims to			
		protect and enhance			
		Green Infrastructure assets.			
		Natural Environments			
		Natural Environment:			
		CPXX- Landscape- The			
		policy aims to protect vulnerable and protected			
		landscapes from negative			
		effects of development.			
		chechi di development.			
				L	

Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution (including light pollution) that will have a negative effect on the environment.	
Health & Wellbeing: Policy CPXX-Noise- The policy states that unacceptable noise levels next to noise sensitive zones will not be permitted.	
Natural Environment: CPXX- Biodiversity- The policy will protect biodiversity from possible harm caused by development.	
Mitigation provided through GCT JCS policies:	
Policy C6 - Supporting Healthy Lifestyles and Wellbeing. The Policy requires new development to contribute to a healthier urban environment through minimizing disturbance associated with light, noise and odour. It also requires that new development delivers public open space that is safe, encourages active use and maximizes	

opportunities for informal recreation.
Policy S3 - requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for CO2 and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so.
Policy S4 – requires that new development should provide and/or link into Green Space.
Policy S10 – development is required to protect and enhance Green Infrastructure (GI) assets.
Policy D2 – this requires that all major development sites including urban extensions and strategic allocations, need to be accompanied by a noise, a dust and a GI assessment.
Policy D3 – requires that the exacerbation of noise pollution will need to be assessed in a transport assessment and any impacts identified will be mitigated either directly or

				through financial contributions.				
Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Draft Gloucester City Plan Site Allocations: 2, 3, 10, 18, 20, 21, 23 25, 28, 29, 30, 32, 33, 40, 41, 44 Policies: B3	The site is outside the plan area and proposed development is not likely to result in any increased nutrient input to the site as a result of consented discharge. There are no pathways for impacts on surface water runoff or water quality at the site. Increased abstraction has the potential to affect water levels at the site as it is situated in the Severn Water Resource Zone.	The site is vulnerable to changes in hydraulic conditions.	Yes	Mitigation provided through draft Gloucester City Plan policies: Flooding and Water Management: CPXX- The policy aims to prevent flooding from occurring and effective and sustainable management of water resources. Design: CPXX- Design & Climate Change- The policy states that development should have a high level of environmental awareness and contributes to climate change mitigation and prevention. Natural Environment: CPXX- Landscape- The policy aims to protect vulnerable and protected landscapes from negative effects of development. Health & Wellbeing: Policy CPXX-Pollution- The policy prevents development which will cause pollution (including water pollution) that will have a negative effect on the environment.	Νο	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column for outlined draft policy mitigation.	Νο

	Health & Wellbeing: Policy CPXX- Contamination- This policy is aimed to prevent contamination of groundwater.		
	Mitigation provided through GCT JCS policies:		
	Policy S3 requires all development to achieve high standards / levels under BREEAM or Code For Sustainable Homes. These set minimum standards for water use and efficiency and credits can be earned by incorporating measures to reduce pollution, if the developer chooses to do so. This should reduce water abstraction and could reduce pollution.		
	Policy \$10 requires development to protect and enhance Green Infrastructure assets which could help intercept pollutants and improve water quality.		